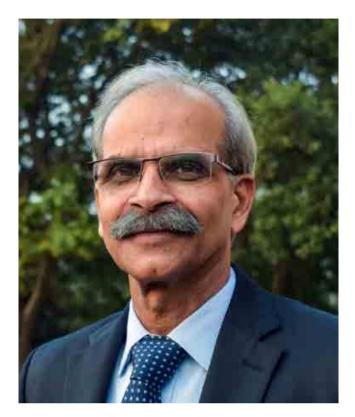




From the Director's Desk	2
Board of Governors	4
Finance Committee	5
Building and Works Committee	6
Senate Members	7
Administration	9
Professors-In Charge, Co-Ordinators, Warden, Gymkhana & Staff	11
About IIT Bhubaneswar	18
» Vision & Mission / Goals and Strategies	19
Campus Infrastructure	21
» Academic Area / Construction Block	24
Eco-Friendly Campus Initiatives	29
Academics	31
Schools	48
Centres of Excellence	66
Our Faculty	70
Publications	81
Research, Development and Collaborations	121
» Sponsored Research Projects	121
» Consultancy / Development Projects	130
» SPARC Project Conducted During 2021-22	136

# Table of Content

» Patents Filled	137
» Patents Granted	137
Invited Lecture/Presentation/Conference/Workshop/Programmes/Seminar/Lecture/Colloquium by Faculty	138
Seminars / Conferences / Workshops Attended by Faculty	146
Seminars / Conferences / Workshops / Symposiums Organized	150
Institute Seminar	152
Faculty Awards / Honours/ Distinction / Fellowships / Industry Internships / Scholarships / Memberships	153
Distinguished Visitors	158
Central Library	165
Computer and Information Technology Services Cell (CITSC)	171
Career Development Cell (CDC)	173
Start-up Centre	177
E-Cell	178
Rajbhasha Ekak	180
Alumni Relations	183
Events	185
Students' Activities	208
Annual Financial Information and R&D Receipt & Payments A/c for the Financial Year 2021-22	243
Representation of Scheduled Castes (SC), Scheduled Tribes (ST), Other Backward Classes (OBC), PwD and Minorities	247
Status of filling up of backlog vacancies in the year 2021-22	247



## From the Director's Desk

The last year was the thirteenth year of existence of IIT Bhubaneswar. The permanent campus of the institute is spreading over 936 Acres of land which is now developed into a serene, green and wellness campus. Hon'ble Prime Minister, Shri Narendra Modi ji, dedicated the campus of the institute to the nation on the 24th of December 2018.

The institute provided education at its usual high standards with no compromises during the pandemic by creating several unique innovative methods. Furthermore, in its commitment to provide education at global standards, the institute has never been closed during the pandemic.

This year's placement has been incredible with 95% of undergraduates being placed. The average salary has also increased by 30% compared to the previous years. For the first time, M.Tech placements have reached 88%.

The current strength of students stand at 2686 Students (B.Tech. - 1239, Dual-Degree - 479, M.Tech. - 393, M.Sc - 206, Ph.D - 369) and is the second highest amongst the 2nd

generation IIT's. In the past 11 years the Institute Co-offered degrees to 2815 students (B.Tech. M.Tech., Ph.D., MSc. etc.). The Institute has a spectrum of 137 full-time faculty members, a large number of adjunct faculty (34), 30 officers and other supporting staff.

The institute has Joint PhD Programme with University of Auckland in which both of the institutes will be taking students to foster academic exchange and cooperation between the two institutions.

Sharing the same vision expressed by NEP 2020, the institute has been promoting holistic and multidisciplinary education, for the last three years, to its engineering students. Courses Mathematics in India (ancient and modern) and "Functional and Communicative Sanskrit", Introduction to Indian Philosophy, Substance in Indian Philosophy, Odissi dance, besides many cutting edge technology courses in Al, Data Sciences, Nano Science and Augmented and Virtual Reality.

The Research and Development activities are increasing with time. The total value of projects received by the Institute so far (2008-22) is around ₹163.06 crores through 314 sponsored research and 335 consultancy projects. The breakup values of research and consultancy projects are ₹139.60 crores and ₹23.46 crores respectively. During the current year (2021-22), projects worth ₹21.86 crores have been received which includes ₹18.02 crores worth of sponsored research projects and ₹3.84 crores worth of consultancy projects. In addition to the above, a total number of 67 project proposals worth ₹47.8 crores submitted recently are in pipeline. The Institute is also actively participating in the national R&D missions namely: "IMPacting Research Innovation and Technology (IMPRINT)". A total of five projects under IMPRINT worth ₹2.43 crores are now ongoing.

About 47 patent applications have been filed by the Institute faculty and research students so far and the number is rising. Last year 3 patents have been granted.

During the last 11 years, the Institute's faculty members and students have contributed to creating knowledge by publishing more than 4588 original research papers in reputed national and international Journals and Conferences. In the last year, faculty members and researchers published 653 research papers, including 503 in journals, 120 in conference proceedings, 29 book chapters and 01 (one) edited book.

In an endeavor to create an environment of teaching-learning of high order, faculty members who got highest student feedback have been honored with teaching excellence awards and Director's commendation awards for Outstanding Services & Research Work. Several academic distinctions, honours, distinguished fellowships, associateships, lectureships, coveted medals and awards have been bestowed on our faculty, in recognition of their academic achievements, during the last year.

The Students' Gymkhana at IIT Bhubaneswar is a central hub for all-round development of students. The councils organized several activities throughout the year. The annual technomanagement fest Wissenaire, socio-cultural fest Alma Fiesta, and Entrepreneurship meet E-Summit have been organized, setting new standards. Our students have won top prizes in Inter-IIT Technical and Socio-cultural events and prizes in sports events conducted by other institutions or universities.

Going by the spirit of Government of India in instituting the Unnat Bharat Abhiyan, the institute took up several outreach activities including adopting 6 villages for helping in development. Carrying on plantations, workshop sessions, providing science labs to schools, making campaigns like 'no to plastic, conducting programmes for children, donation of books, sanitary napkin vending machine, conducting online classes during pandemic, and offline classes have been a few of the activities taken up.

Entrepreneurship cell of IIT Bhubaneswar is committed to nurture entrepreneurship culture among its students. E-Cell organised 8th edition of E-Summit'21 during March 25-27, 2022 with the theme of "Embracing Innovation: Reshaping the Future through online mode with many competitions, events and workshops alongside prominent guest talks, conclaves and many new initiatives. Both the students of IIT Bhubaneswar and the people from Odisha and other places took part in the event with great enthusiasm. The participants had a chance to interact with industry experts like Sri Sandip Ranjan Das, Board Director of Sterlite Technologies and Greenlam Industries and EX-CEO Jio, Sri Atulya B, co-founder BuyUcoin and Sri Karthik Balasubramanian, Co-founder KIP foundation and other distinguished personalities and practicing entrepreneurs. Prior to ESummit-22, E-Cell also organised an online workshop on "How to start an enterprise" on Feb5, 2022. The event was open to the participants outside the institute as well and was attended by more than one thousand participants.

The Technology Incubation Centre under E cell is also contributing to the technology development environment in the institute with financial assistance rendered to three projects in year 2021-22. More such proposals for prototype development, submitted by faculty and students, are under consideration for the support under TIC in near future.

During the year 2021-22, thirteen (13) National and International symposiums, conferences, Faculty Development Programmes, and workshops have been organized under the aegis of Continuing Education, IIT Bhubaneswar.

Under the Quality Improvement Programme (QIP) of the All India Council for Technical Education (AICTE), nine (9) faculty members from the AICTE recognized Engineering colleges are pursuing their Ph.D. programmes in different disciplines at IIT Bhubaneswar. Further, four (04) faculty members are pursuing their Pre Ph. D. Programme in the year 2021-22. Besides, Institute has conducted 15 nos. of Short Term Courses (STCs) under QIP during May - July, 2021. Institute has also conducted 32 Nos. of short-term courses under the Global Initiative of Academic Networks (GIAN), MoE, Govt. of India. Furthermore, 31 nos. of short term course proposals have been submitted by IIT Bhubaneswar for Phase – III of GIAN.

Eleven (11) major research projects are running under Continuing Education with the support of the Scheme for Promotion of Academic and Research Collaboration (SPARC), MoE, Govt. of India. Twenty-Five (25) International professors from distinguished foreign universities are associated with the projects.

IIT Bhubaneswar has an Alumni Association and 2815 nos. of Ex- students are connected with the Association. The association has been working and taking many initiatives for the betterment of the society and Institute also. In the year 2021, IIT Industry Conclave was organized by the IIT Alumni Centre Bengaluru on 15th August 2021 which provided an opportunity to interact with speakers from various walks of life including a large number of IIT Directors and alumni. Besides, Alumni Cell also successfully launched a mentorship programme to bolster alumni-student relations via collaborations on various technical and non-technical projects.

Functioning of the Institute in its high standards and its entire activities could not have been achieved without the full participation and support of all stakeholders – our faculty, students, staff; agencies and industries sponsoring R&D organizations and departments; professionals from other organizations and our alumni. The Institute is grateful to the Ministry of Education, Govt. of India for its continued and sustained encouragement and support.

Jai Hind!

Prof. Virendra Kumar Tewari 31st August 2022

3

## **Board of Governors**

### **CHAIRMAN**



**Dr. Rajendra Prasad Singh** Former Chairman & Managing Director, Power Grid Corporation & Independent Director, Azure Power Global Ltd.

## MEMBERS



Prof. Ratnam V. Raja Kumar Director, Indian Institute of Technology Bhubaneswar



Cdr. V.K. Jaitly, INS (Retd.) Chairman, C-cube Consultants, C\_cube conducts Programs in Business Excellence, New Delhi -110077



**Dr. Rakesh Ranjan** Additional Secretary (TE), Ministry of Education, Shastri Bhawan, New Delhi - 110115



Prof. Saroj Kumar Nayak Professor, School of Basic Sciences, Indian Institute of Technology Bhubaneswar



Shri Hemant Sharma, IAS Principal Secretary, Skill Development & Technical Education Govt. of Odisha, Bhubaneswar – 751 001



**Prof. N. C. Sahoo** Professor, School of Electrical Sciences, Indian Institute of Technology Bhubaneswar



**Prof. V. K. Tewari** Director, Indian Institute of Technology Kharagpur Kharagpur - 721302 (West Bengal)





Shri Debaraj Rath Registrar Offtg. Indian Institute of Technology Bhubaneswar, [w.e.f. 24.05.2021]



**Col (Dr) Subodh Kumar** Registrar, Indian Institute of Technology Bhubaneswar, [up to 23.05.2021]



## **Finance Committee**

## CHAIRMAN

#### Dr. Rajendra Prasad Singh

Former Chairman & Managing Director, Power Grid Corporation & Independent Director, Azure Power Global Ltd.

## **MEMBERS**

**Prof. Ratnam V. Raja Kumar** Director, Indian Institute of Technology Bhubaneswar

**Ms. Darshana M Dabral** JS & FA, Dept. of Higher Education, Ministry of Education, Shastri Bhawan, New Delhi - 110001 **Dr. Rakesh Ranjan** Additional Secretary (TE) Ministry of Education, Shastri Bhawan, New Delhi – 110001

**Prof. V K Tewari** Director, Indian Institute of Technology Kharagpur, Kharagpur - 721302 (West Bengal)

**Prof. Saroj Kumar Nayak** Professor, School of Basic Sciences, Indian Institute of Technology Bhubaneswar **Prof. N. C. Sahoo** Professor, School of Electrical Sciences, Indian Institute of Technology Bhubaneswar

## SECRETARY

Shri Debaraj Rath Registrar Offtg., Indian Institute of Technology Bhubaneswar [w.e.f. 24.05.2021] **Col (Dr) Subodh Kumar** Registrar, Indian Institute of Technology Bhubaneswar [up to 23.05.2021]

## **Building and Works Committee**

## **CHAIRMAN**

**Prof. Ratnam V. Raja Kumar** Director, Indian Institute of Technology Bhubaneswar

### **MEMBERS**

**Shri Bhakta Kabi Das** Chief General Manager (P&C), IDCO, Bhubaneswar

**Er. Manoranjan Misra** Chief Engineer (DPI & Roads), Works Department, Govt. of Odisha, Bhubaneswar

**Dr. P. Dinakar** Head, School of Infrastructure, Indian Institute of Technology Bhubaneswar Shri Sansar Pattanayak Former ADG, CPWD Bhubaneswar

**Prof. N. C. Sahoo** Head, School of Electrical Sciences, Indian Institute of Technology Bhubaneswar

## SECRETARY

Shri Debaraj Rath Registrar Offtg., Indian Institute of Technology Bhubaneswar [w.e.f. 24.05.2021] Col (Dr) Subodh Kumar Registrar,

Indian Institute of Technology Bhubaneswar [up to 23.05.2021]

## **Senate Members**

S. N.	Name of the Member	Position	Place
1.	Prof. Ratnam V. Raja Kumar	Chairman (Ex-Officio)	Director, IIT Bhubaneswar (upto 02.04.2022)
2.	Prof. Sujit Roy	Member	Dean (R&D) / Professor, School of Basic Sciences (Chemistry)
3.	Dr. Pravas Ranjan Sahu	Member	Dean (Academic Affairs)
4.	Prof. V. R. Pedireddi	Member	Dean (Students' Affairs)
5.	Prof. S.K. Mahapatra	Member	Dean, CE / Head, SHSS&M
6.	Prof. S.K. Nayak	Member	Dean (F&P)
7.	Prof. R.K. Panda	Member	Head, School of Earth, Ocean & Climate Sciences (upto 25.05.2021)
8.	Dr. Syed Hilal Farooq	Member	Head, School of Earth, Ocean & Climate Sciences w.e.f. 26.05.2021)
9.	Prof. T.V.S. Sekhar	Member	Head, School of Basic Sciences
10.	Prof. N.C. Sahoo	Member	Head, School of Electrical Sciences (upto 31.3.2022)
11.	Dr. Subhransu Ranjan Samantaray	Member	Head, School of Electrical Sciences (w.e.f. 1.4.2022)
12.	Dr. Mihir Kumar Pandit	Member	Head, School of Mechanical Sciences
13.	Dr. Dinakar Pasla	Member	Head, School of Infrastructure (w.e.f. 01.03.2020 for a period of 3 years upto 28.02.2023 or till further orders)
14.	Prof. P.V. Satyam	Member	Head, School of Minerals, Metallurgical and Materials Sciences (w.e.f. 01.03.2020 for a period of 2 years upto 28.02.2022 or till further orders)
15.	Prof. U.C. Mohanty	Member	Visiting Professor, SEOCS
16.	Prof. H.K. Mishra	Member	Visiting Professor, School of Earth, Ocean & Climate Sciences (upto 30.6.2021)
17.	Prof. Rambhatla G Sastry	Member	Visiting Professor, School of Earth, Ocean & Climate Sciences
18.	Prof. Godabarisha Mishra	Member	Visiting Professor, School of HSS & M (upto 31.12.21)
19.	Prof. Brahma Deo	Member	MGM Chair Professor, MM&ME (w.e.f. 14.01.2020)
20.	Prof. Suddhasatwa Basu	External Member	Director, IMMT Bhubaneswar (2 Years w.e.f. 24.03.2021)
21.	Prof. (Dr.) Ajay Kumar Singh	External Member	Vice Chancellor, Sri Sri University, Cuttack (2 Years w.e.f. 24.03.2021)
22.	Prof. Harihara Hota	External Member	Vice Chancellor, Shri Jagannath Sanskrit University, Puri (2 Years w.e.f. 24.03.2021)
23.	Dr. Manoranjan Satpathy	Member	Associate Professor, School of Electrical Sciences (upto 23.03.2021)

S. N.	Name of the Member	Position	Place
24.	Dr. Prasanta Kumar Sahu	Member	Associate Professor, School of Electrical Sciences (2 Years w.e.f. 24.03.2021)
25.	Dr. Snehasis Chowdhury	Member	Associate Professor, School of Basic Sciences (2 Years w.e.f. 24.03.2021)
26.	Dr. Sumanta Haldar	Member	Associate Professor, School of Infrastructure (2 Years w.e.f. 24.03.2021)
27.	Dr. Manas Mohan Mohapatra	Member	Associate Professor, SMS (2 Years w.e.f. 24.03.2021)
28.	Dr. Sasmita Barik	Member	Associate Professor, School of Basic Sciences (2 Years w.e.f. 24.03.2021)
29.	Dr. Kisor Kumar Sahu	Member	Assistant Professor, School of MM&ME (2 Years w.e.f. 24.03.2021)
30.	Dr. Vinoj. V	Member	Asst. Professor, School of Earth, Ocean & Climate Sciences (2 Years w.e.f. 24.03.2021)
31.	Dr. Shantanu Pal	Member	Warden (upto 19.12.21)
32.	Dr. Mihir Kumar Das	Member	Warden (w.e.f. 20.12.21)
33.	Dr. Sankarshan Mohapatro	Member	President, Gymkhana (upto _14.11.21)
34.	Dr. Srinivas Karanki	Member	President Gymkhana (w.e.f. 15.11.21)
35.	Dr. Rajesh Roshan Dash	Member	Chairman Library / Associate Professor, School of Infrastructure
36.	Dr. Chandrasekhar Bhamidipati	Member (Ex-Officio)	Chairman, JEE
37.	Dr. Subhransu Ranjan Samantaray	Member (Ex-Officio)	Chairman, GATE
38.	Dr. Rajan Jha	Member (Ex-Officio)	Chairman, JAM
39.	Dr. Bibhuti Bhusan Sahoo	Member	Deputy Librarian
40.	Ms. Aurosikha Das	Student Invitee	Research Scholar, School of Basic Sciences (upto March 2022)
41.	Mr. Lalit Mohan Behera	Student Invitee	Research Scholar, School of Basic Sciences (w.e.f. March, 2022)
42.	Mr. S. Niranjan	Student Invitee	Vice President, Gymkhana w.e.f. July 2020 to June 2021
43.	Mr. Swapnil Dnyaneshwar More	Student Invite	Vice President, Gymkhana w.e.f. July 2021
44.	Col. (Dr.) Subodh Kumar	Secretary	Registrar (upto 23.5.21)
45.	Mr. Debaraj Rath	Secretary	Registrar (Registrar Offtg.) (w.e.f. 24.5.21)

## Administration

### Director

Prof. Ratnam V. Raja Kumar

### Deans

Dean (Academic Affairs) Dr. Pravas Ranjan Sahu

Email: deanac@iitbbs.ac.in

Dean (Faculty and Planning) Prof. Saroj Kumar Nayak Email: deanf@iitbbs.ac.in

Dean (Research & Development) Prof. Sujit Roy Email: deanrd@iitbbs.ac.in

Dean (Student Affairs) Prof. V. R. Pedireddi (up to 11.10.2021) Prof. P. V. Satyam (w.e.f. 12.10.2021) Email: deansa@iitbbs.ac.in

## Head of the Schools

School of Basic Sciences Dr. T. V. S. Sekhar Email: hos.sbs@iitbbs.ac.in

#### School of Earth, Ocean and Climate Sciences Prof. Rabindra Kumar Panda (up to 25.05.2021)

**Dr. Syed Hilal Farooq** (w.e.f. 26.05.2021) Email: hos.seoc@iitbbs.ac.in

School of Electrical Sciences Prof. N. C. Sahoo Email: hos.ses@iitbbs.ac.in Dean (Continuing Education) Prof. Swarup Kumar Mahapatra Email: deance@iitbbs.ac.in

Dean (Alumni Affairs and International Relations) Prof. Rabindra Kumar Panda (up to 17.05.2021) Prof. Swarup Kumar Mahapatra (w.e.f. 18.05.2021) Email: deanaa@iitbbs.ac.in

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School of Minerals, Metallurgical and Materials Engineering Prof. P. V. Satyam Email: hos.smmme@iitbbs.ac.in

### Officers

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Shri Manas Kumar Behera Assistant Registrar (upto 11.07.2021) Email:; ar.est@iitbbs.ac.in

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**Shri Pradeep Kumar Sahoo** Assistant Registrar (w.e.f. 12.07.2021) Email: ar.est@iitbbs.ac.in

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**Dr. Sambhunath Sahoo** Assistant Librarian Email: sambhu@iitbbs.ac.in

Shri Prasanna Kumar Das OSD (Finance &Accounts) Email: prasanna@iitbbs.ac.in

Shri Amulya Kumar Ray (w.e.f. 22.07.2021) OSD (Establishment) Email: osd.est@iitbbs.ac.in Shri Jagdish Sarangi (w.e.f. 19.07.2021 to 18.01.2022) OSD (R & D) Email: jsarangi@iitbbs.ac.in Shri Chandra Vadde Programmer Email: chandra@iitbbs.ac.in Shri K Rabin Kumar Dora (up to 07.10.2021) Executive Engineer (Civil) Email: rabindora@iitbbs.ac.in Shri Biswaranjan Pradhan Assistant Executive Engineer (Electrical) Email: biswaranjan@iitbbs.ac.in Lt Cdr Raj Kumar (05.07.2021 to 04.07.2022 on lien) Chief Security Officer Email: cso@iitbbs.ac.in Dr. Mansoor Ahmed Khan Medical Officer Email: mansoor@iitbbs.ac.in Dr. Ashima Sarkhel (up to 20.12.2021) Medical Officer Email: ashimasarkhel@iitbbs.ac.in Dr. Subhasis Nag (up to 27.10.2021) Medical Officer Email: subhasish@iitbbs.ac.in Dr. Naba Kishore Patnaik Medical Officer Email: nkpatnaik@iitbbs.ac.in Dr. Rachana Patel (w.e.f. 23.11.2021) Medical Officer Email: patelrachana@iitbbs.ac.in Dr. Aswini Kumar Das (w.e.f. 10.03.2022) Medical Officer Email: aswinidas@iitbbs.ac.in Dr. Shyama Prasad Mishra (w.e.f. 21.03.2022) Medical Officer Email: shyama@iitbbs.ac.in Dr. Gagandeep Kaur Makkar Student Counsellor Email: gagandeep@iitbbs.ac.in Shri Sushanta Kumar Poddar (up to 30.09.2021) **OSD** (Academics) Email: osd.academics@iitbbs,.ac.in Shri Shalin Sasidharan Nair (up to 10.01.2022) Public Relation Officer Email: pro@iitbbs.ac.in

## Professors-In Charge, Co-Ordinators, Warden, Gymkhana & Staff

Name, School	Position	Period
Professor-In-Charge		
<b>Dr. Gaurav Bartarya</b> School of Mechanical Sciences	PIC - E -Cell	w.e.f. 17.09.2018
<b>Dr. Arun Ku. Pradhan</b> School of Mechanical Sciences	PIC - Training & Placement [Career Development Cell]	w.e.f. 01.07.2016
<b>Dr. Mihir Kumar Pandit</b> School of Mechanical Sciences	PIC - Guest House	w.e.f. 01.07.2016
<b>Prof. V. R. Pedireddi</b> School of Basic Sciences	PIC - Permanent Campus	w.e.f. 18.07.2015
<b>Prof. V. R. Pedireddi</b> School of Basic Sciences	PIC – Security	w.e.f. 01.07.2016 to 03.01.2022
<b>Dr. Rajan Jha</b> School of Basic Sciences	PIC – Security	w.e.f. 04.01.2022
<b>Dr. P. K. Sahu</b> School of Electrical Sciences	PIC – [Network & Security]	w.e.f. 01.07.2016
<b>Dr. R. R. Dash</b> School of Infrastructure	PIC - Transport Services	w.e.f. 01.07.2016
<b>Dr. Tarakanta Nayak</b> School of Basic Sciences	PIC – Horticulture (Residence)	w.e.f. 18.12.2020
<b>Dr. Debi Prosad Dogra</b> School of Electrical Sciences	PIC – Horticulture (Academic)	w.e.f. 19.07.2016 to 14.11.2021
<b>Dr. Debi Prosad Dogra</b> School of Electrical Sciences	PIC – Horticulture (Academic)	w.e.f. 15.11.2021
<b>Dr. Srinivas Bhaskar Karanki</b> School of Electrical Sciences	PIC - Counselling Service	w.e.f. 29.06.2016 to 14.11.2021
<b>Dr. Raj Kumar Singh</b> School of Earth, Ocean Climate Sciences	PIC - Counselling Service	w.e.f. 15.11.2021
<b>Dr. Satyanarayan Panigrahi</b> School of Mechanical Sciences	PIC – IPR	w.e.f. 06.11.2012
Dr. C. N. Bhende School of Electrical Sciences	PIC - Institute Seminar	w.e.f. 03.04.2018
<b>Dr. Niladri Bihari Puhan</b> School of Electrical Sciences	PIC - Web Services	w.e.f. 26.07.2019
Dr. Chandrasekhar Perumalla School of Electrical Sciences	PIC - Electrical works	w.e.f. 07.06.2019
<b>Dr. Sumanta Haldar</b> School of Infrastructure	PIC - Civil works	w.e.f 01.03.2020
<b>Dr. Srinivas Pinisetty</b> School of Electrical Sciences	PIC - ERP	w.e.f. 11.04.2018

Name, School	Position	Period
<b>Dr. Prasant Sahu</b> School of Electrical Sciences	PIC - Centre of Excellence of Augmented Reality and Virtual Reality	w.e.f. 01.07.2019
<b>Dr. Raj Kumar Singh</b> School of Earth, Ocean Climate Sciences	PIC - Raj Bhasha Ekak	w.e.f. 28.03.2015 to 27.10.2021
<b>Dr. Sunil Kumar Prajapati</b> School of Basic Sciences	PIC - Raj Bhasha Ekak	w.e.f. 28.10.2021
<b>Dr. M. Sabarimalai Manikandan</b> School of Electrical Sciences (on lien to IIT Palakkad)	PIC - Start up Center	w.e.f. 30.12.2020 to 20.03.2021
Dr. Debi Prosad Dogra	PIC- Start up Center	w.e.f. 21.03.2022
<b>Dr. Rajan Jha</b> School of Basic Sciences	PIC - Examination	w.e.f. 20.04.2018 to 23.01.2022
<b>Dr. Debasis Basu</b> School of Infrastructure	PIC - Examination	w.e.f 24.01.2022
<b>Dr. Manas M. Mahapatra</b> School of Mechanical Sciences	PIC - Time Table	w.e.f. 07.07.2017
<b>Dr. Raj Kumar Guduru</b> School of Humanities, Social Sciences and Management	PIC- Newsletter Committee	w.e.f. 11.04.2018
Chairman / Chairperson		
<b>Prof. P. V. Satyam</b> School of Basic Sciences	Chairman - Institute Purchase Committee	w.e.f. 12.01.2021
<b>Dr. Barathram Ramkumar</b> School of Electrical Sciences	Chairman - CITSC	w.e.f. 05.09.2019
<b>Dr. P. R. Sahu</b> School of Electrical Sciences	Chairman - CPMC	w.e.f. 01.07.2016
Dr. R. R. Dash School of Infrastructure	Chairman - Central Library	w.e.f. 01.07.2016
<b>Dr. Manas M. Mahapatra</b> School of Mechanical Sciences	Chairman - CIF (Central Instrumentation Facility)	w.e.f. 01.07.2016
<b>Dr. Animesh Mondal</b> School of Minerals Metallurgical and Materials Engineering	Co- Chairman - CIF (Central Instrumentation Facility)	w.e.f. 01.07.2016
<b>Dr. C. Bhamidipati</b> School of Basic Sciences	Chairman - JEE	w.e.f. 01.08.2016
<b>Dr. Rajan Jha</b> School of Basic Sciences	Chairman - JAM	w.e.f. 01.08.2016
<b>Dr. S. R. Samantaray</b> School of Electrical Sciences	Chairman - GATE	w.e.f. 01.08.2016
<b>Dr. Debalina Ghosh</b> School of Electrical Sciences	Chairperson – Internal Complaint Committee (ICC)	w.e.f. 21.12.2020
<b>Dr. Sasmita Barik</b> School of Basic Sciences	Chairperson – Women Welfare Committee (WWC)	w.e.f. 02.03.2021

Name, School	Position	Period
Prof. R.K. Panda School of Infrastructure	Chairman – House Allotment Committee	w.e.f. 27.02.2015 to 11.05.2021
<b>Dr. Sasmita Barik</b> School of Basic Sciences	Chairman – House Allotment Committee	w.e.f. 12.05.2021
<b>Prof. S. K. Mahapatra</b> School of Mechanical Sciences	Chairperson – Internal committee to Monitor the HVAC related works in Phase -2 works of the Institute.	w.e.f. 11.01.2021
<b>Dr. Asish Biswas</b> School of Basic Sciences	Chairman – Technology Market Committee	w.e.f. 12.10.2021
<b>Dr. Soobhankar Pati</b> School of Minerals Metallurgical and Materials Engineering	Coordinator - Alumni Affairs & International Relations	w.e.f. 07.10.2015
<b>Dr. Snehasis Chowdhuri</b> School of Basic Sciences	Coordinator -NSS Program Officer	w.e.f. 01.07.2016
<b>Dr. Srikant Gollapudi</b> School of Minerals Metallurgical and Materials Engineering	Coordinator - EAA	w.e.f. 08.04.2019 to 02.12.2021
Dr. Devesh Punera School of Infrastructure	Coordinator - EAA	w.e.f. 03.12.2021
Dr. Bankim Chandra Mandal School of Basic Sciences	Co- Coordinator - EAA	w.e.f. 08.04.2019
<b>Dr. Seema Bahinipati</b> School of Basic Sciences	Co- Coordinator, UBA Programs	w.e.f. 11.04.2018
<b>Dr. Tarakanta Nayak</b> School of Basic Sciences	Co- Coordinator, UBA Programs	w.e.f. 11.04.2018
<b>Prof. S. K. Mohapatra</b> School of Mechanical Sciences	Coordinator – QIP	w.e.f. 29.08.2018
<b>Dr. P. R. Sahu</b> School of Electrical Sciences	Chief Vigilance Officer	w.e.f. 29.08.2018
Warden		
<b>Dr. Santanu Pal</b> School of Basic Sciences	Warden	w.e.f. 01.07.2016 to 19.12.2021
<b>Dr. Mihir Kumar Das</b> School of Mechanical Sciences	Chief Warden	w.e.f. 20.12.2021
<b>Dr. Seema Bahinipati</b> School of Basic Sciences	Warden of Ganga Hall of Residence	w.e.f. 15.11.2021
<b>Dr. Manaswini Behera</b> School of Infrastructure	Warden of Suvarnarekha Hall of Residence	w.e.f. 15.11.2021
<b>Dr. Srikant Gollapudi</b> School of Minerals Metallurgical and Materials Engineering	Warden of Brahmaputra Hall of Residence	w.e.f. 15.11.2021
Dr. Arindam Sarkar School of Infrastructure	Warden of Mahanadi Hall of Residence	w.e.f. 15.11.2021

Name, School	Position	Period
<b>Dr. Suvradip Mullick</b> School of Mechanical Sciences	Warden of Rushikulya Hall of Residence	w.e.f. 15.11.2021
<b>Dr. Kiranmayee Landu</b> School of Earth, Ocean Climate Sciences	Assistant Warden of Ganga Hall of Residence	w.e.f. 15.11.2021
<b>Dr. Sunil Kumar Prajapati</b> School of Basic Sciences	Assistant Warden of Brahmaputra Hall of Residence	w.e.f. 15.11.2021
Dr. Joy Chandra Mukherjee School of Electrical Sciences	Assistant Warden of Mahanadi Hall of Residence	w.e.f. 15.11.2021
<b>Dr. Anoop Thomas</b> School of Electrical Sciences	Assistant Warden of Rushikulya Hall of Residence	w.e.f. 15.11.2021
<b>Dr. Srinivas B. Karanki</b> School of Electrical Sciences	Assistant Warden (Boys)	w.e.f. 01.10.2015 to 14.11.2021
Dr. Yogesh Ganpat Bhumkar School of Mechanical Sciences	Assistant Warden (Boys)	w.e.f. 08.07.2016 to 14.11.2021
<b>Dr. Sourav Sil</b> School of Earth, Ocean Climate Sciences	Assistant Warden (Boys)	w.e.f. 08.07.2016 to 14.11.2021
Dr. Barathram Ramkumar School of Electrical Sciences	Assistant Warden (Boys)	w.e.f. 08.07.2016 to 14.11.2021
<b>Dr. Manaswini Behera</b> School of Infrastructure	Assistant Warden (Girls)	w.e.f. 01.01.2020
Gymkhana		
Dr. Sankarsan Mohapatro School of Electrical Sciences	President, Gymkhana	w.e.f. 13.02.2017 to 14.11.2021
<b>Dr. Srinivas Bhaskar Karanki</b> School of Electrical Sciences	President, Gymkhana	w.e.f. 15.11.2021
<b>Dr. Niladri Bihari Puhan</b> School of Electrical Sciences	Advisor, Science & Technology Activities of Student Gymkhana	w.e.f. 14.07.2018 to 25.11.2021
<b>Dr. Souma Prakash Dash</b> School of Electrical Sciences	Advisor, Science & Technology Activities of Student Gymkhana	w.e.f. 26.11.2021
<b>Dr. Olive Ray</b> School of Electrical Sciences	Advisor, Sports & Game Activities of Student Gymkhana	w.e.f. 26.07.2019
<b>Dr. Yengkhom Kesorjit Singh</b> School of Earth, Ocean Climate Sciences	Treasurer –Gymkhana	w.e.f. 08.04.2019 to 17.06.2021
<b>Dr. Nijwam Wary</b> School of Electrical Sciences	Treasurer –Gymkhana	w.e.f. 18.06.2021
<b>Dr. Manaswini Behera</b> School of Infrastructure	Advisor –(Socio-Cultural)	w.e.f. 08.04.2019 to 25.11.2021
<b>Dr. Kodanda Ram Mangipudi</b> School of Minerals Metallurgical and Materials Engineering	Advisor –(Socio-Cultural)	w.e.f. 26.11.2021
<b>Dr. Mihir Kumar Pandit</b> School of Mechanical Sciences	Advisor, Purchase Committee of Student Gymkhana	w.e.f. 14.07.2016
<b>Dr. V. Pandu Ranga</b> School of Mechanical Sciences	Advisor, Finance Committee of Student Gymkhana	w.e.f. 14.07.2016

### Staff

**Director's Office** 

**Smt. Suhana Parween** [Jr. Accounts Officer]

Shri Ramseh Kumar Panda [Jr. Assistant]

**Finance and Account Section** 

Shri Ajit Kumar Sahoo [Jr. Superintendent]

Shri Raghunath Behera [Jr. Accounts Officer]

Shri Vivek Kedia [Jr. Accounts Officer]

#### **Establishment**

Ms. Jignyasha Behera [Jr. Superintendent]

**Shri Arup Kumar Pandab** [Jr. Assistant]

**Registrar's Office** 

Shri Pradeep Kumar Pattanaik [Private Secretary]

#### **Dean Faculty & Planning Office**

Shri Satyabrota Ghosh [Jr. Superintendent]

#### **Dean Continuing Education Office**

#### Shri Himansu Bhusan Sahoo [Jr. Assistant]

#### **R&D Section**

Shri Anirudha Bai [Jr. Superintendent]

#### **Store & Purchase Section**

Shri Rajsekhar Bendi [Jr. Superintendent] (from 18.03.2021 to 17.03.2024 on deputation)

#### Shri Vikram Alagandula

[Jr. Assistant] (from 04.01.2022)

#### **Central Library**

**Ms. Sangita Sahu** [Sr. Library Information Assistant] Shri Giresh Kumar Pitta [Jr. Superintendent] (From 08.12.2020)

Shri Ramesh Chandra Biswal [Driver]

[Driver]

Shri Sambit Ranjan Mohanty [Jr. Superintendent]

Shri Guru Parsad Sahoo [Jr. Accounts Officer]

**Ms. Smruti Smaranika Kumar** [Jr. Assistant]

Shri Vikram Alagandula [Jr. Assistant] (up to 03.01.2022)

Shri Una Sujit [Jr. Superintendent] (From 10.12.2020)

Shri Abhishek Kachchap [Jr. Superintendent]

Shri Dillip Kumar Parida [Sr. Library Information Assistant]

Central Dak / Recruitment	
<b>Ms. Souravi Behera</b> [Jr. Assistant]	
Health and Sanitary Unit	
<b>Shri Pradip Kumar Poddar</b> [Sanitary Inspector]	
Security Unit	
<b>Shri Tapan Kumar Mohapatra</b> [Assistant Security Officer]	
Academic Section	
<b>Shri Satyajit Sarangi</b> [Jr. Superintendent]	<b>Shri Abhimanyu Mahal</b> [Jr. Superintendent]
<b>Smt. Nibedita Patnaik</b> [Jr. Superintendent]	<b>Shri Gouri Shankar Mishra</b> [Jr. Assistant]
<b>Shri Bijay Kumar Sahoo</b> [Private Secretary] (from 19.07.2021)	
Medical Unit	
Ms. Swarnalata Swain [Staff Nurse]	<b>Shri Srinibash Panigrahy</b> [Pharmacist]
<b>Shri D. Kannan</b> [Pharmacist]	
Engineering Cell	
<b>Shri Dipti Ranjan Pattanaik</b> [Jr. Engineer (Civil)]	<b>Shri Abhisek Das</b> [Jr. Engineer (Electrical)]
Shri Gajendra Behera [Jr. Engineer (Electrical)]	<b>Shri Rupesh Kumar Pradhan</b> [Jr. Engineer (Civil)]
сітѕс	
Shri Rabinson Behera [Associate Network Administrator]	<b>Shri Tileswar Mahto</b> [Technician (System Administration)]
<b>Shri Ranjith Rao</b> [Technician (Network Administration)]	
Student Gymkhana	
<b>Ms. Sunita Verma</b> [Physical Training Instructor]	<b>Shri Biswajit Pegu</b> [Physical Training Instructor]
Horticulture	
Shri Kamireddy Visweswara Reddy	

[Horticulturist]

Shri Vidya Sagar Vajja	
[Jr. Technical Superintendent]	
School of Basic Sciences	
<b>Dr. Nihar Ranjan Panda</b>	<b>Shri Sushanta Sahoo</b>
[Jr. Technical Superintendent]	[Jr. Technical Superintendent]
<b>Shri Tarapada De</b>	<b>Shri Samir Kumar Jena</b>
[Jr. Technician]	[Jr. Laboratory Assistant]
<b>Shri Sukesh Kumar Mishra</b>	<b>Shri Naresh Koppula</b>
[Jr. Laboratory Assistant]	[Jr. Laboratory Assistant]
<b>Shri Marshal Tudu</b> [Jr. Assistant]	
School of Electrical Sciences	
<b>Ms. Madhusmita Divyadarsini Mohapatra</b>	<b>Shri Santosh Kumar Sahoo</b>
[Jr. Technical Superintendent]	[Jr. Technical Superintendent]
<b>Shri Bikram Ranjan Behera</b>	<b>Shri Dillip Kumar Biswal</b>
[Jr. Technician]	[Jr. Technician]
<b>Shri Birata Keshari Nanda</b>	<b>Shri Brajamohan Mohapatra</b>
[Jr. Technician]	[Jr. Technician]
<b>Shri Raimohan Behera</b>	<b>Sk Tajuddin Ahmed</b>
[Jr. Technician]	[Jr. Technician]
<b>Shri Mrinal Datta</b> [Jr. Technician]	
School of Infrastructure	
<b>Ms. Supriyarani Mohanty</b>	<b>Shri Samir Kumar Sethi</b>
[Jr. Technical Superintendent]	[Jr. Technical Superintendent]
<b>Ms. Akasmika Sarangi</b>	<b>Shri Soubhagya Kumar Behera</b>
[Jr. Technician]	[Jr. Technician]
<b>Shri Amiya Chandra Singh</b> [Jr. Technician]	
School of Mineral Metallurgical Materials Engi	ineering
<b>Shri Ramakrishna Pantangi</b>	<b>Shri Sonu Kumar Goyal</b>
Jr. Technical Superintendent]	[Jr. Laboratory Assistant]
School of Mechanical Sciences	
<b>Shri Aloka Kumar Nayak</b>	<b>Shri Malaya Kumar Routray</b>
Jr. Technical Superintendent]	[Jr. Technical Superintendent]
<b>Shri Sidhartha Biswal</b>	<b>Shri Dillip Kumar Sahoo</b>
Jr. Assistant]	[Jr. Technician]
<b>Shri Sunil Kumar Pradhan</b>	<b>Shri Bivudata Mohanty</b>
Jr. Technician]	[Jr. Technician]
<b>Shri Purnendu Kumar Bisoi</b> [Jr. Technician]	



## About IIT Bhubaneswar

Indian Institute of Technology Bhubaneswar is established by the government of India in 2008 under The Institutes of Technology Act 1961 with Amendments up to 2012. The Act was passed in the Lok Sabha on 24<sup>th</sup> March 2011 and by the Rajya Sabha on 30 April 2012. IIT Bhubaneswar became an Institute of National Importance from 29 June 2012 with notification of Amendment in the Institutes of Technology Act, 1961 by the Ministry of Education, (Department of Higher Education) Government of India published in the Gazette of India dated 2 July 2012.

The Institute started functioning from the campus of IIT Kharagpur on 22<sup>nd</sup> July 2008 and shifted its operation to the city of Bhubaneswar on 22<sup>nd</sup> July 2009. The Institute has adopted the concept of Schools rather than Departments for promoting inter-disciplinary research. At present, 7 schools are offering an academic programme.

Presently the academic programmes of the Institute include B. Tech. (Hons.) in Computer Science, Civil, Electrical, ECE, Mechanical Engineering, Metallurgical and Materials Engineering. The institute is also starting Dual degree courses in Mechanical and civil with intake of 10 from the academic year 2016-17. The institute offers 2 years of M.Sc. and M. Tech courses. The Institute started the Doctoral programme from the academic session 2009-2010 and offer admission to the joint M. Tech-Ph.D. Programme from July 2012. The Indian Institute of Technology, Bhubaneswar (IITBBS) is also planning to start a new school of planning, architecture and design. This school will offer undergraduate, postgraduate and Ph.D. courses in all three disciplines. This will be the eighth school to function in the Institute. At present, such schools function at two other IIT's-in IIT Kharagpur and Roorkee. The Institute has broadly adopted the course curricula, syllabi and other academic regulations of IIT Kharagpur, the mentor institute. The pedagogy emphasizes participatory, student-centric and participatory learning. The academic programmes are equipped with very relevant courses for a budding entrepreneur, the entire institute may be used as a technology incubator and the institute has a 40,000 sq. ft. Start-up space for students to avail.

The institute is committed to providing holistic education aimed at producing tomorrow's leaders, nurturing personality, creativity, innovative mind-set and capability be it in Science or Technology or Management or other domains of human excellence. It provides ample opportunity for a young mind to take any path and excel apart from providing the opportunity to research in a chosen area. Institute is also committed to creating a wellness environment, including in green, clean and healthy environment, quality education, efficient and effective governance, effective health services, security, equality and enlightenment.

The Institute has started all academic operations from the permanent campus at Argul from academic session 2015-16. The final shifting of the Institution was done on 14<sup>th</sup> July, 2018 where the entire administrative became an operational post that. The Institute provides well-qualified faculty, state-of-theart infrastructure facilities creating a conducive environment for the rapid growth of the students' skill sets in all aspects of the personality – academic, research, cultural, sports, ethical and social responsibility. Our Institute's numerous collaborations with foreign universities, industries and institutions across the world provide scope to the students to be exposed to the global trends in education, research and industry. Ample opportunities in both national and international stints for internships, research projects and exchange programs have been a prominent trend among our students. In the past 11 years the Institute Co-offered degrees to 2815 students (B.Tech. M.Tech., Ph.D., MSc. etc.)

During the last 11 years, the Institute's faculty members and students have contributed to creating knowledge by

publishing more than 4129 original research papers in reputed national and international Journals and Conferences. Students also won several awards in conferences and competitions.

The Institute has been ranked in various international and national agency rankings. As per Times Higher Education (THE) World University rankings 2022, the institute has been ranked 1001-1200 across the world. Institute has been ranked 301-350 in Times Higher Education (THE) World University Asia University Rankings, 351–400 in Times Higher Education (THE) Emerging Economies University Rankings, and 301-350 in Times Higher Education (THE) Young University Rankings. The institute has been ranked 701-750 in QS World University Rankings and 251-260 in QS World University Rankings: Sustainable Development Goals. The Three University Mission Rankings (Russia) has ranked the Institute in 901-1000 in 2021. The Institute also ranked 541 in the overall category of UI Greenmetric Ranking 2021.

In addition, IIT Bhubaneswar has been ranked by various credible national agencies. The Institute has been ranked 28<sup>th</sup> in Engineering, 58<sup>th</sup> in an Overall, and 43<sup>rd</sup> In Research category by National Institutional Ranking Framework (NIRF)-MOE 2021, Institute ranked 1<sup>st</sup> in research capability and 1<sup>st</sup> in engineering institute category by Times Engineering Institute Rankings 2021 and in India Today Best Engineering College 2021, the institute has been ranked 11<sup>th</sup> position. The institute ranked 15<sup>th</sup> and 14<sup>th</sup> in The week-Hansa Research Engineering College and Engineering University ranking respectively. The Institute also ranked 2<sup>nd</sup> in DQ-CMR Best tech Schools Survey 2022.

## Vision and Mission

Indian Institute of Technology Bhubaneswar inherits the brand name IIT. This fact itself charges the Institute not only to be worthy of its inheritance but also to be distinctive and distinguished on its own by scripting a path towards novelties.

Presented below are the statements for Vision, Mission, Goals & Strategies (to achieve the Goals) and the Core Values of IIT Bhubaneswar.



IIT Bhubaneswar will be globally well recognized for creating outstanding graduates and new knowledge.

Vision

### **Mission**

- » To shape ourselves into a learning community, where we work, listen and respect each other.
- » To encourage and facilitate faculty, researchers and students to work synergistically across discipline boundaries.
- » To infuse a sense of excitement in students in innovation & invention, design & creation and entrepreneurship.
- » To develop and pursue curricula those are dynamic, flexible and holistically designed to facilitate creativity and cognitive thinking.
- » To strive for productive partnerships between the industry and the Institute.

### **Goals and Strategies**

Promoting globally competitive academic programs and ambiance that support intellectual growth and skill acquisition

- Promote skills to critically analyze and the competency to effectively synthesize and apply new knowledge in curriculum development and delivery.
- » Address the changing needs of the region, state, nation and world in the learning process.
- Create a diverse, fully-engaged, learner-centric campus environment.
- » Strengthen the national and international competitiveness of the students by facilitating international internships, industrial project opportunities, student exchange and study abroad participation.
- » Put equal emphasis on discovery science and solution science.
- » Bring research into classrooms.

#### Expanding world-class interdisciplinary research and scholarly endeavours

- Promote distinctive research programs that address real-life as well as futuristic issues.
- Strengthen integrated and synergistic interdisciplinary research within and across the various Schools.
- Broaden and strengthen the Institute's research base and support infrastructure by engaging with partners from all sectors of the economy.
- Create a talent pool of world-class faculty members, postdoctoral fellows, doctoral and post-graduate students.

- Create an excellent support staff structure and regularly upgrade their competencies.
- Evolve itself into a repository of intellectual properties and prototypes on a globally competitive basis.

#### Strengthening and providing support in sustaining a healthy society by improving the quality of life through the application of technology

- Establish an institutional structure to facilitate and promote community engagement and societal enterprise.
- Include community engagements into the Institute's promotional guidelines.
- » Encourage and reward faculty and students' efforts in community development. Acknowledge efforts and gains in official statements and transcripts.

## Establishing a strong and sustainable economic base for the Institute

- Encourage and facilitate sponsored projects, consultancy and technology transfer for creating a sound corpus.
- Utilize brand value for attracting endowments for sponsored chairs and scholarships.
- » Support entrepreneurial endeavours especially in commercializing emerging technologies evolved out of the Institute labs through a publicprivate partnership.

## Building up a healthy and robust IIT Bhubaneswar family

- Promote and sustain a positive working environment and maintain a significantly improved service quality.
- Improve staff support through expanding professional development opportunities.
- Perform Institute's corporate social responsibilities with utmost sincerity.
- » Nourish and sustain vibrant co-and extra-curricular activities.
- Create an ambiance for bonding through equity, trust and mutual respect.

#### **Core Values**

- Respecting students as budding engineers and scientists embarking on a journey towards innovation and invention.
- Nurturing freedom of thought and expression and encouraging a sense of inquiry.
- » Empowering each person to rise to his/her full potential Respecting the opinions and rights of others.



## **Campus Infrastructure**

The permanent campus of IIT Bhubaneswar spreads over 936 Acres of land. It is situated at the foot of Barunei Hill, which is famous for its rich history. The campus provides a unique serene and pollution free academic environment. The campus includes Academic area, Residential area and area for Training centres and Research Park.



Mahanadi Hall of Residence (MHR) Boys Hostel with capacity of 800 students

Mess Facilities; Modern and well equipped kitchens; Gym and Physical Fitness; Basketball and Volleyball Courts; Badminton and Table Tennis Court; Media Entertainment Room; Solar Lighting Systems; 24 Hours high alert security system; Gigabit Ethernet to Individual hostel rooms; ATM facilities.



**Subarnarekha Hall of Residence (SHR)** Girls Hostel with the capacity of 200 students Independent mess facilities; Modern and well-equipped kitchens; Basketball and Volleyball Courts; Solar lighting systems; 24 hours high alert security system; Gigabit Ethernet to Individual hostel rooms



**Brahmaputra Hall of Residence (BHR)** Boys Hostel with capacity of 800 students with single room facility, Independent mess facilities; Modern and well equipped kitchens; Multipurpose hall; 24 hours high alert security system; Gigabit Ethernet to Individual hostel rooms



#### Ganga Hall of Residence (GHR)

GHR is having a capacity of 400 girls students are equipped with single room facility, Independent mess facilities; Modern and well-equipped kitchens; a Multipurpose hall; 24 hours high alert security system; Gigabit Ethernet to Individual hostel rooms



#### **Sports Facility**

- Cricket field
- Volleyball courts
- Basketball courts
- Table tennis rooms



#### **Residential facility for Faculty and Staff**

- Faculty & Staff quarters
- Mini-Market
- 200 seated community centre



#### **Guest House**

The guest house is comprised of a total of 42 single and double-bedded air-conditioned rooms with attached bathrooms and all modern amenities. Online booking and e-payment facilities are available



**Director's Bungalow** The bungalow is having 506 sq. Meter plinth area; 24 hours security system including boundary wall and kitchen garden facilities. MOE had sanctioned Rs. 1260 Crores for Phase –I & II constructions of IIT Bhubaneswar. Out of Rs. 1260 crores. Phase I construction has been almost completed and Phase II construction is all nearing completion and the infrastructure is expected to be ready by 2022.

SI. No.	Name of the Work	Area (Sq.m.)	Date of Start	Likely date of completion as per NBCC
A) Wor	ks in Progress			
M/s. Kr	ishna Builders			
1. 2.	Boys' Hostel (800 Seater)- 1 No. Girls' Hostel (400 Seater)- 1 No.	24504 15043	20.04.2017	Building occupied by IIT on 15.7.19(Wing-A) & 10.10.19 (Wing-B).
M/s. Si	mplex Infrastructures Ltd. M/s. Girdhari Lal Co	nstruction	Pvt. Ltd.	
1.	Boys' Hostel (800 Seater)- 1 No.	24504		Building occupied by IIT on 20.08.202 (Part) (Wing-B)
2.	Type – A Faculty Qtrs. (44 Nos)-2 unit	11342		A1-Building occupied by IIT on 04.02.2022 A2- Building occupied dt. 31.03.2022
3.	Type –B Faculty Qtrs. (88 Nos) -4 unit	20658		B1- Building Occupied on 01.09.21 B2- 30.04.2022 B3- Building occupied dt. 31.03.2022
4.	Type –C Staff Qtrs. (88 Nos)-3 unit	18280		B4- Building occupied dt. 12.01.2022 C1- 31.07.2022 C2- 31.07.2022 C3-31.07.2022
5.	Type –D Staff Qtrs. (44 Nos) - 2 unit	6733		D1- Building occupied dt. 07.01.22 D2- Building occupied dt. 05.01.22
6.	Director's Bungalow	474	0744 0.047	Completed on dt. 13.02.2020
7.	Students activity centre (including swimming Pool 50 x 25M)	4350	27.11.2017	31.07.2022
8.	Dispensary	1224		30.09.2022
9.	Auditorium (1500 Capacity)	5281		31.10.2022
10.	School of Minerals, Metallurgical and Materials, Engineering	3648		31.07.2022
11.	School of Earth Ocean & Climate Sciences	3648		31.07.2022
12.	School of Humanities, Social Sciences & Management	1582		31.07.2022
13.	Central Workshop	2554		30.06.2022
14.	Central Research and Instrumentation facilities	2508		30.06.2022
15.	Lecture Theater (60 Seater Class room-48 Nos., 120 Seater Class room-22 Nos., 240 Seater Class room - 4 Nos.	26354		LHC-1-31.08.2022 LHC-2- 31.10.2022 LHC-3-31.08.2022
M/s. SN	VS Infracon Pvt. Ltd.			
1.	Commercial Complex (Academic)	1443		30.06.2022
2.	Commercial Complex (Residential)	1143	01.06.2018	30.06.2022
2. 3.	Extension of SES Building	8468	01.00.2010	31.07.2022
	litendu Satpathy and M/s. Gurumaharaja Engi		d.	
4.	Construction of Sewerage Network at Argul Campus		14.11.2018	31.12.2021

#### Status of Phase-II Constructions with NBCC as PMC

SI. No.	Name of the Work	Area (Sq.m.)	Date of Start	Likely date of completion as per NBCC
M/s. Sł	nreejikrupa Projects Ltd.			
1.	Efficiency Hostel for Married scholars	7555	14.12.2018	31.07.2022
2.	One side Extension of SIF Building	3105		
3.	One side Extension of SMS Building	3128		
4.	One side Extension of SBS Building	2564		
M/s. Sł	nreejikrupa Projects Ltd.			
1.	External development (like Road, Drain, Play Fields, Play courts, Equipment room, Cycle car parking, land scapping in LHC and School and open air theatre		03.03.2019	31.10.2022
M/s. J.I	M. Enviro Technologies Pvt. Ltd.			
1.	STP with SCADA system		29.06.2019	31.10.2022

## Photographs of Phase-II Construction as on Dt. 31.03.2022

#### Academic Area / Construction Block



Auditorium: External Cladding, terrace screed concreting, flooring and water proofing work, HVAC chiller foundation & pump room plinth beam work in progress. About 55.69% of building work completed



LHC-1: Structural work completed About 80.50% of building work completed.



LHC-2: structural work completed. About 40.75% of building work completed.



LHC-3: The finishing work is in progress. About 92.80% of building work completed.



Central Workshop: Structural work completed. About 96.18% of building work completed.



SMMME: Structural work completed. About 95.74% of building work completed.



SEOCS: Structural work completed. About 95.40% of building work completed.



SHSSM: Structural work completed. About 95.88% of building work completed.



SIF Extension: Structure completed, finishing work such as painting, Aluminum work, false ceiling work, Sanitary work, HVAC & electrical work is in progress. About 75.25 % of building work completed.



SMS Extension: Structure completed, finishing work such as painting, Aluminum work, false ceiling work, Sanitary work, HVAC & electrical work is in progress. About 71.70% of building work completed.



SBS Extension: Structure completed, False ceiling, expansion joint, aluminum work, Sanitary work, electrical work, HVAC work is in progress s. About 78.60% of building work completed.



SES Extension: Structure completed at the two sides of the existing building and finishing work is in progress. About 87.60% of building work completed.



**CRIF:** Structural work completed and finishing work is in progress. About 92.69% of building work completed.



**STP:** Collection tank, intermediate and clear water tank completed. The lab cum control room structure work completed and finishing work, plumbing work, machine installation work and electrical works in Progress. About 67% of STP work completed.

#### **Residential Area Construction Block**



Type-C1 & C2 Quarters: The structure completed and finishing works are in progress.



**Type-C3 Quarters:** The structure completed and finishing works are in progress.



Type-B1 & B2 Quarters: The structure completed and finishing works are in progress



**Type-B3 & B4 :** The structure completed and finishing works are in progress

About 99.10% of building work completed in B type Qtrs.



**Boys' Hostel-3:** Structural work about 75% completed and finishing work is in progress. About 93.50% building work completed



**SAC:** Finishing work is in progress. About 95.10 % of building work completed

#### About 96.85% of building work completed in C type Qtrs.



**Type-D1 & D2 Quarters:** Structural work completed and finishing work is in progress. About 99.90% of building work completed in D Type Qtrs.



**Type-A1 & A2 Quarters:** Structural work completed and finishing work is in progress. About 99.90% building work completed in A Type Qtrs.



**Dispensary:** Structural work completed and finishing work is in progress. About 64.35% building work completed.



**Efficiency Hostel:** Structural work completed and finishing work is in progress. About 84.62% of building work completed.



**Commercial Complex (Residential):** Structural work completed and finishing work is in progress. About 94.50% of building work completed



**Swimming Pool:** Structural work completed. Finishing work is in progress.



Football, athletic track and javelin ground: About 70 % work completed.



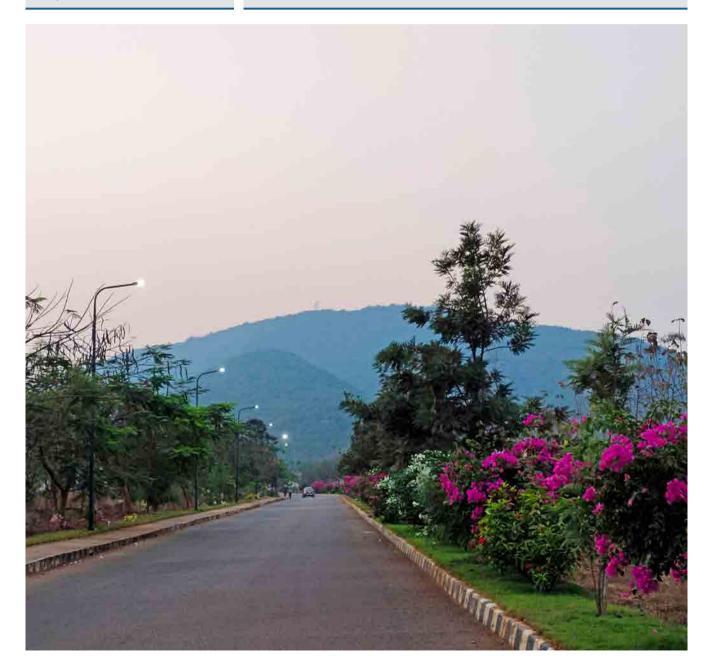
Cricket ground: About 70% work completed.



Hockey ground: About 85 % of work completed



Basket Ball Volley Ball & Tennis Court: About 95% work completed.



## ECO-FRIENDLY CAMPUS INITIATIVES

## **Green Campus Initiatives**

IIT Bhubaneswar adopted the following green campus initiatives to make the campus eco-friendly:

**Plantation Initiative:** IIT Bhubaneswar believes what Ralph Waldo Emerson says, "The creation of a thousand forests is in one acorn." Acorn is a symbol of prosperity, youthfulness, power and spiritual growth. Symbolically, it means that a small effort of planting a tree can go a long way in protecting nature and mother earth which you all will agree is the burning need of our times.

IIT Bhubaneswar is highly committed towards promoting the green belt and hence takes humongous steps towards making the campus and nearby places green. IIT Bhubaneswar has created and maintains outstanding landscapes and greenery in the campus. Plantation of trees also helps create a wellness environment important for the campsites to enjoy the working and residential space. In addition to 42,000 plants planted in the last couple of years. This year more than 3,000 plants have already been planted. The exotic and indigenous evergreen and deciduous flowering trees and plants such as Bauhinia, Eugenia, Foxtail palm etc. were some of the varieties chosen to be planted to create the healthy echo-system for attracting the exotic and migratory birds. Every effort was made to restore the damage that occurred due to Fani. Along with the plantation of new plants, the old ones were restored and I am happy to share that most of the trees and plants survived. The massive task related to the teak plantation was completed along the boundary wall of our campus. These are some of the few highlights in moving towards the promotion of green campus.

**Cycle Friendly Campus Initiative:** IIT Bhubaneswar banned power vehicle use by students and incorporated the "Cycling Culture" for promoting the health benefits of students, faculty, staff and the community and for controlling environmental risk factors. The institute has initiated the Bicycle Infrastructure Development Plan for creating "Cycle Friendly Campus" by providing sustainable and convenient tree-lined cycle paths for riding a bicycle between the schools and hostels, and for constructing cycle parking infrastructure in each of the buildings.

Water-Harvesting Initiative: IIT Bhubaneswar has initiated building up of rooftop rainwater harvesting and surface rainwater harvesting infrastructure, and setting up a waste management system and wastewater recycling plant, to make the campus zero-discharge.

**Green Buildings:** The buildings are GRIHA (Green Rating for Integrated Habitat Assessment) 4 and 5 compliant. The building construction is done by using the fly ash blocks which are not only environment friendly, but also keep the building cool and clean.

**Eco-friendly Waste Disposal:** IIT Bhubaneswar deployed dustbins with biodegradable and non-biodegradable categories.

## IIT Bhubaneswar is Ragging Free

The Institute strongly adheres to the anti-ragging policy and implements it through the true spirit of action. The institute takes several timely actions including close monitoring to ensure the system is in place. Also the administration, concerned faculty and staff conduct several meetings with the newly joined fresher's as well as senior students appraising them about the policy of the institute and counselling them about the good practices of interaction with new students and development of brotherhood towards personality building. The Dean (SA) closely monitors the activities on the campus being supported by wardens and faculty members to make it ragging free.

To build up the confidence in the minds of fresher's, faculty do regularly visit the hostels to ensure the truest interaction between fresher's and senior students and spend nights in the hostel during the initial few months.





## Academics

Indian Institute of Technology Bhubaneswar is one of the elite technology institutes of India spurred by sustained creation of knowledge and innovation through high-quality R&D activities and commitment to holistic education. The Institute aims to develop and pursue dynamic and flexible curricula designed to facilitate creativity and cognitive thinking among students through a productive partnership with industry. Keeping pace with the changing scenario for providing adequate competent Technocrats and Scientists, IIT Bhubaneswar has raised its student intake significantly in B.Tech and Dual Degree to 475 from 419 including supernumerary seats to female students; in M.Sc the student intake raised from 100 to 125 with the implementation of @ 10 % reservation for EWS category, apart from 246 in M.Tech. The current strength of students stands at 2686 Students (B.Tech. - 1239, Dual-Degree - 479, M.Tech. - 393, M.Sc - 206, Ph.D - 369). The Institute offers 6 Nos. of B.Tech. 9 Nos. of Dual Degree Programmes, 5 Nos. of M.Sc., 14 Nos. of M.Tech Programmes and Ph.D. Programme in its 7 Schools. The admission for the academic year 2021-22 into the courses PhD, M. Tech., M.Sc., BTech and Dual Degrees took place in July, 2021 and November 2021, respectively.

COVID 19 could have impacted IIT Bhubaneswar very seriously in a number of ways. A lot of innovative, proactive and advance actions have been taken at the institute well in advance before the announcement of the first phase lockdown in March 2020. Due to timely following actions the possible negative impacts could be very effectively and successfully avoided or marginalised.

#### Switching to Online Education with Zero-gap

Teaching and learning was taken with utmost priority in online mode without compromising with the quality, syllabus content and the academic schedules. The institute could switch to online education with absolutely no gap due to pre-planning and taking action well ahead of the lockdown period. Institute gave the option to students to stay on the campus or go home during the lockdown periods. More than 400 students stayed back at the hostels, all through their physical and mental wellbeing were taken care of through regular health check-up and counselling. The institute could protect its campsites from Covid-19 and the campus was Covid-free, except for a brief period of one and half months, in between.

Lab classes were conducted through live video steaming of experiments conducted on the table which is unique. Classes could be run on time by online means as per academic calendar.

Holding Pen and Paper Exams by Online and with no compromise on evaluation

A unique method of holding comprehensive and detailed online examinations (pen and paper) with realtime online invigilation has been developed in-house and adopted very successfully to conduct examinations for all the students, in the previous semester (Spring 2020-21). Perhaps, it is the only IIT among 23 IITs to do so. The outgoing students were graduated in time without any compromise on the examination standards. The practice has become a routine, applied to autumn 202122 and spring 2021-22. The institute has been honoured with the "University of the Year" award by FICCI in 2021. Institute would serve as a role model in the country and do its best in times to come.

The institute ran its academics in uncompromised standard and completed its spring end semester examination of 2021-22 on May 2022 for all of its students except for the 1<sup>st</sup> year B.Tech and Dual Degree which will took a month and half more due to late admission and late starting of the semester across all IITs.

## Admission, Rejuvenation and Orientation programme for Fresh Students

The Institute conducted the Autumn session Ph.D. admission selection (written test and interviews) in online mode. Admissions for Ph.D., M.Tech and MSc freshers and the regular UG, Dual-Degree, PG and Research scholars were held in online mode. Their education started online, on board, giving them a feeling of belongingness to the institute running their academics in full standards during the pandemic as a challenge. To keep the morals of students high during the pandemic, Institute conducted interactive sessions with freshers and continuing students with institute heads in three times. Students were encouraged to participate in the sessions, share their problems and seek solutions. Students have grossly benefitted from these sessions.

The Orientation Programme for the new entrants (B.Tech/ Dual Degree/Ph.D. / M.Tech / M.Sc) was conducted on virtual mode Schools organised a series of talks on 'Introduction to Engineering' for first-year students in which an overview of different disciplines of engineering was presented by school experts for giving a broad discipline knowledge to the students. Institute has a plan to rejuvenate the students by organizing programmes from the Art of Living Foundation after they come to campus. This programme was organized for the freshers for the entire semester, last year. Student activity clubs and counselling cells organize interactive sessions with the fresher's introducing them to different activities of the institute gymkhana. Visits to places of historical and monumental importance around the institute and Odisha to make them aware about the locality, culture and heritage in the past.

## 10<sup>th</sup> convocation conducted in a unique hybrid mode:

IIT Bhubaneswar conducted its 10<sup>th</sup> convocation, live in a very unique hybrid mode with the participation of few degree recipients in person and rest in online mode. This mode of conducting convocation was the first of its kind very unique over the modes taken up by many other sister institutes.

The 10<sup>th</sup> Annual Convocation was held on 20<sup>th</sup> October, 2021 in the Community Centre, Argul Campus, IIT Bhubaneswar. Shri NR Narayana Murthy, Founder & Chief Mentor, Infosys Technologies Limited graced the occasion via video conferencing as Chief Guest and delivered the convocation address. Dr. Rajendra Prasad Singh, Chairman, Board of Governors (BoG), the Director IIT Bhubaneswar Prof. Ratnam V. Raja Kumar and other dignitaries were present on the occasion. Total 559 graduates, (256 B. Tech., 36 Dual Degree, 153 M.Tech. 79 M.Sc., and 35 Ph.D.) were conferred degrees during the occasion.

Shri Dinesh Mohanty from B.Tech. (Computer Science and Engineering) was awarded the President of India Gold Medal for topping among all B. Tech. branches, Shri Shivam Handa, from School of Mechanical Sciences was awarded the Direcor's Gold Medal for topping all Dual Degree programmes. Shri Saswat Kumar Panda of M.Tech. (Manufacturing Engineering) was awarded the Director's Gold Medal for topping among all M.Tech. Programmes and Shri Hitesh Gupta of M.Sc. (Atmosphere and Ocean Sciences), School of Earth, Ocean and Climate Sciences was awarded the Director's Gold Medal for topping among all M.Sc. disciplines. Several other medals and endowment awards were also distributed.



## Academic Information for 2021 - 22

**Programmes Offered** 

4-year B.Tech. Programme	Civil Engineering, Electrical Engineering, Mechanical Engineering, Computer Science and Engineering, Metallurgical and Materials Engineering, Electronics and Communication Engineering
5-year Dual Degree (B.Tech. + M.Tech)	B. Tech in Mechanical Engineering + M. Tech. in Mechanical System Design, B.Tech in Mechanical Engineering + M. Tech. in Thermal Science and Engineering, B. Tech. in Mechanical Engineering + M. Tech. in Manufacturing Engineering, B. Tech in Civil Engineering + M. Tech. in Structural Engineering, B. Tech in Civil Engineering + M. Tech. in Civil Engineering, B.Tech in Civil Engineering, B.Tech in Civil Engineering, B.Tech in Civil Engineering, B.Tech. in Civil Engineering, B.Tech. in Civil Engineering, B.Tech. in Transportation Engineering, B.Tech in Civil Engineering, B.Tech. in Computer Science and Engineering + M.Tech. in Computer Science and Engineering, B.Tech. in Electrical Engineering + M.Tech. in Power Electronics and Drives, B.Tech. in Metallurgical and Materials Engineering + M.Tech. in Materials Science and Engineering.
M. Tech. Programme	Climate Science and Technology, Electronics and Communication Engineering, Transportation Engineering, Structural Engineering, Metallurgical & Materials Engineering, Mechanical Systems Design, Thermal Science and Engineering, Power System Engineering, Environmental Engineering, Water Resources Engineering, Computer Science and Engineering, Geotechnical Engineering, Manufacturing Engineering, Power Electronics and Drives
Joint M.ScPh.D. Programme	Physics, Chemistry, Mathematics, Geology, Atmosphere and Ocean Sciences.
Ph.D. Programme	School of Basic Sciences, School of Earth, Ocean & Climate Sciences, School of Electrical Sciences, School of Humanities, Social Sciences and Management, School of Infrastructure, School of Mechanical Sciences, School of Minerals, Metallurgical & Materials Engineering.

#### Year-Wise Sanctioned (Approved) Intake

Academic Programme	2021-22	2020-21	2019-20	2018-19	2017-18
B.Tech & Dual Degree	471	437	389	350	350
M. Tech.	246	246	246	173	154
Joint M.Sc Ph.D.	125	125	100	100	100
Ph.D.			449		

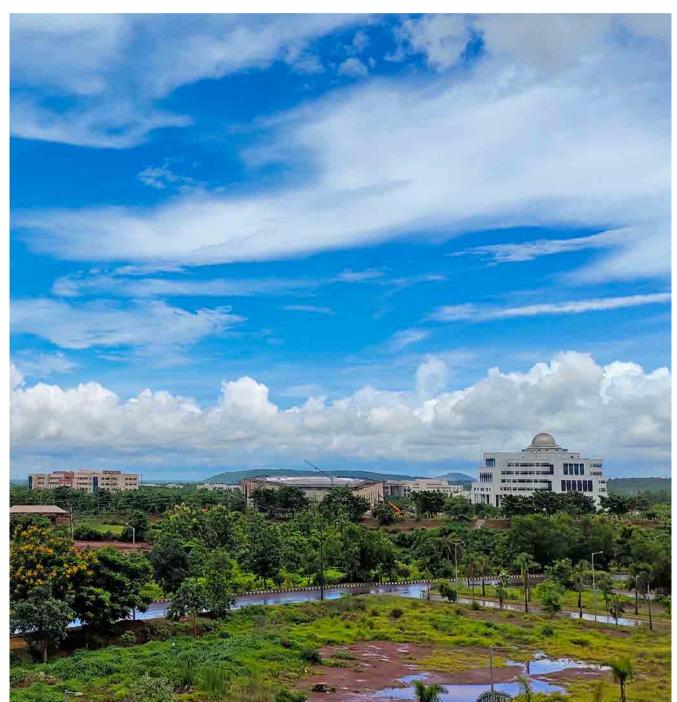
#### Year wise admitted strength of students in various academic Programmes

Year	B.Tech & Dual Degree	M.Tech	M.Sc	Ph.D.	Total
2010-11	126			25	151
2011-12	112			21	133
2012-13	113	42		50	205
2013-14	148	50	57	44	299
2014-15	164	71	71	48	354
2015-16	162	74	76	58	370
2016-17	249	106	73	61	489
2017-18	338	125	70	51	584
2018-19	354 *	156	75	90	675
2019-20	407 *	192	82	63	744
2020-21	442 *	221	96	117	876
2021-22	441*	178	110	75	804

\*including Supernumerary Female students and preparatory courses completed students

Programme	No. of Male Students	No. of Female Students	Total Students	Within State	Outside State	Socially Backward (SC, ST, OBC-NCL)
B.Tech & Dual Degree	1412	306	1718	67	1651	734
M.Tech	337	56	393	53	340	129
M.Sc.	146	60	206	28	178	63
Ph.D	284	85	369	151	218	144

#### Total Actual Student Strength (2021-22)



### **Course Wise Student Strength**

### B.Tech & Dual Degree

SI. No.	Name of Programme	Approved Intake		students n 2021-22*		umber of in 2021-22	No. of Students passed in 2020-21	
			Male	Female	Male	Female	Male	Female
1.	B.Tech. (Civil Engineering)	66	50	10	186	39	39	5
2.	B.Tech (Electrical Engineering)	70	50	15	201	45	45	6
3.	B.Tech.(Computer Science and Engineering)	67	53	14	197	47	49	6
4.	B.Tech (Electronics and Communication Engineering)	52	41	10	152	33	35	5
5.	B.Tech. (Mechanical Engineering)	70	53	13	197	45	43	3
6.	B.Tech. (Metallurgical and Materials Engineering)	28	22	5	78	19	20	0
7.	Dual Degree (B. Tech in Mechanical Engineering +M. Tech. in Mechanical System Design)	15	12	2	54	11	11	0
8.	Dual Degree (B. Tech in Mechanical Engineering + M. Tech. in Thermal Science & Engineering)	15	11	2	52	8	9	0
9.	B. Tech. in Mechanical Engineering +M. Tech. in Manufacturing Engineering	15	12	2	53	9		
10.	Dual Degree (B.Tech in Civil Engineering + M. Tech. in Structural Engineering)	12	11	2	43	11	9	1
11.	Dual Degree (B.Tech in Civil Engineering + M. Tech. in Transportation Engineering)	13	9	1	41	9	6	0
12.	B. Tech in Civil Engineering + M. Tech. in Environmental Engineering	13	8	0	39	7		
13.	B.Tech. in Computer Science and Engineering + M.Tech. in Computer Science and Engineering	12	8	3	38	7		
14.	B.Tech. in Electrical Engineering + M.Tech. in Power Electronics and Drives	12	9	2	43	9		
15.	B.Tech. in Metallurgical & Materials Engineering + M.Tech. in Materials Science and Engineering	11	9	2	38	7		
	Total	471	358	83	1412	306	266	26

### M.Tech.

SI. No.	Name of Programme	Approved Intake			Total number of students in 2021-22		No. of Students passed in 2020-21	
			Male	Female	Male	Female	Male	Female
1.	Electronics and Communication Engineering	20	8	0	20	2	6	9
2.	Power System Engineering	20	16	2	29	6	13	4
3.	Power Electronics Drives	20	14	2	27	7	14	2
4.	Computer Science and Engineering	20	14	0	31	1	9	4
5.	Mechanical Systems Design	20	19	0	39	0	16	1
6.	Thermal Science And Engineering	20	8	0	25	0	16	1
7.	Manufacturing Engineering	20	14	1	30	3	14	0
8.	Structural Engineering	14	11	3	24	5	3	1
9.	Transportation Engineering	13	9	0	20	1	5	1
10.	Environmental Engineering	13	7	3	19	4	3	0
11.	Water Resources Engineering	13	5	4	13	7	3	2
12.	Geotechnical Engineering	13	5	4	12	9	3	2
13.	Climate Science And Technology	20	8	7	21	5	13	1
14.	Metallurgical & Materials Engineering	20	13	1	27	6	5	1
	Total	246	151	27	338	61	123	29

### M.Sc.

SI. No.	Name of Programme	Approved Intake	No. of students admitted in 2021-22*		Total number of students in 2021-22		No. of Students passed in 2020-21	
			Male	Female	Male	Female	Male	Female
1.	Chemistry	26	12	13	28	19	13	7
2.	Physics	26	22	3	37	10	11	7
З.	Mathematics	24	17	7	32	11	17	4
4.	Geology	25	17	7	32	15	14	1
5.	Atmosphere and Ocean Sciences	24	9	3	17	5	3	2
	Total	125	77	33	146	60	58	21

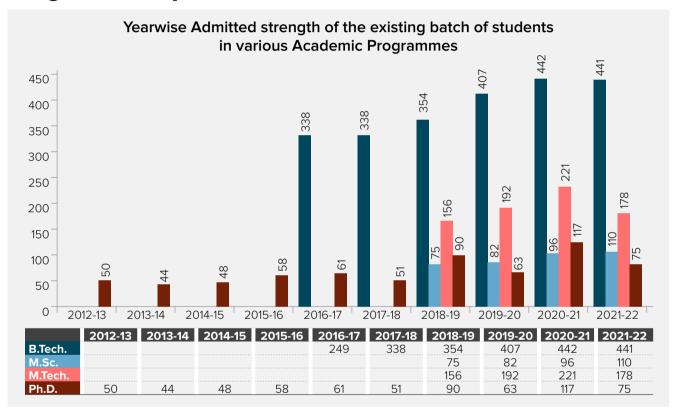
### Ph.D:

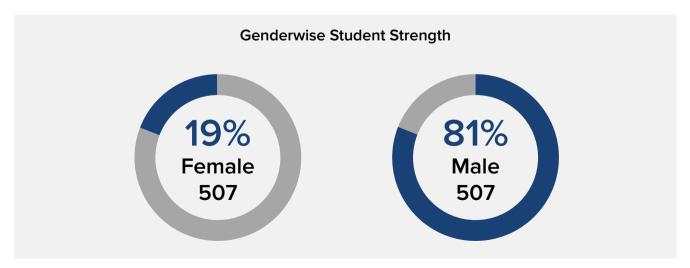
SI. No.	Name of Programme	Approved Intake	No. of students admitted in 2021-22*		Total number of students in 2021-22		No. of Students passed in 2020-21	
			Male	Female	Male	Female	Male	Female
1.	School of Basic Sciences		17	12	79	41	6	3
2.	School of Earth, Ocean & Climate Sciences		8	4	31	7	3	2
3.	School of Electrical Sciences		8	2	52	13	7	4
4.	School of Humanities & Social Sciences	449	3	0	13	10	0	0
5.	School of Infrastructure		12	3	42	10	4	0
6.	School of Mechanical Sciences		3	1	39	2	3	0
7.	School of Minerals, Metallurgical & Materials Engineering		1	1	28	2	2	1
	Total	449	52	23	284	85	25	10

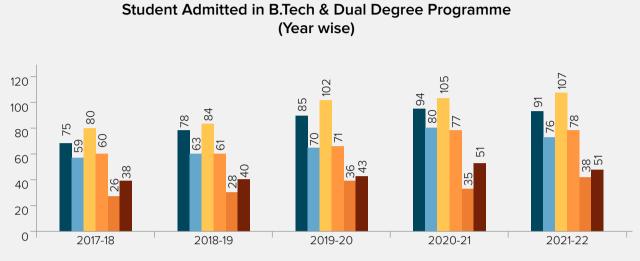
Total lee per student for academic year 2021-22 (per semester)									
COURSES	GENERAL	OBC-NCL	SC/ST/PWD	SPONSORED					
B.TECH	₹1,48,759.00	₹1,48,759.00	₹48,759.00	NOT APPLICABLE					
M.TECH	₹53,759.00	₹53,759.00	₹48,759.00	₹73,259.00					
M.SC	₹48,759.00	₹48,759.00	₹48,759.00	NOT APPLICABLE					
PH.D	₹51,259.00	₹51,259.00	₹48,759.00	₹50,759.00					

### Total fee per student for academic year 2021-22 (per semester)

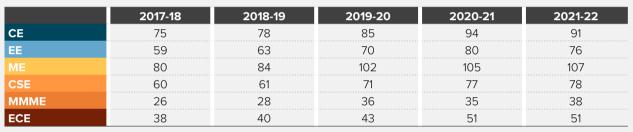
### Graphical Representation of Different Academic Programmes up to 2021-22 (Based on Admission Records)

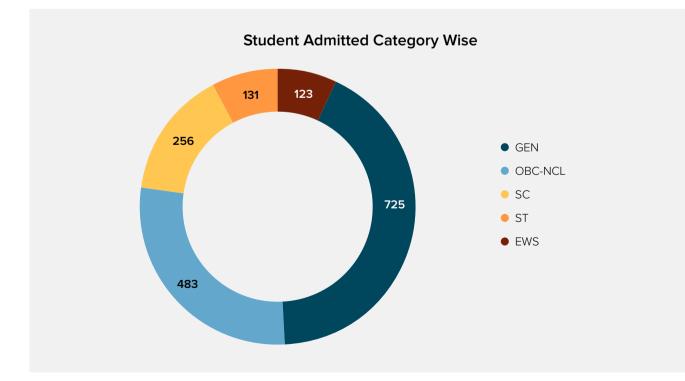


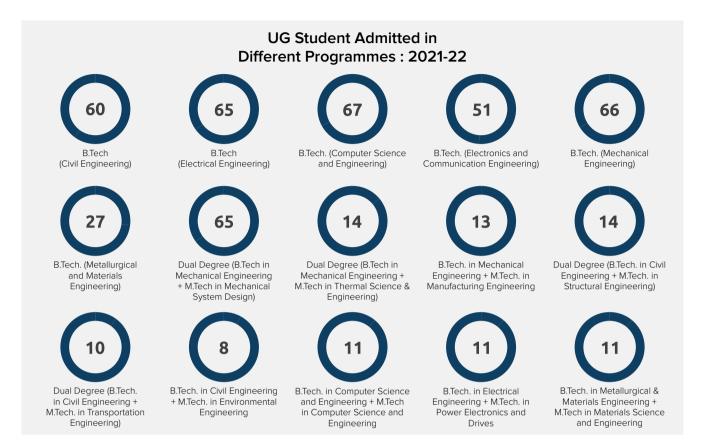




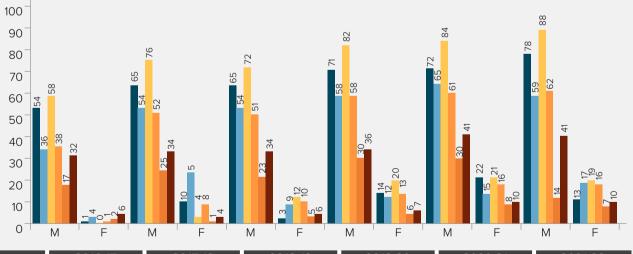
### **B.Tech. & Dual Degree Programme**





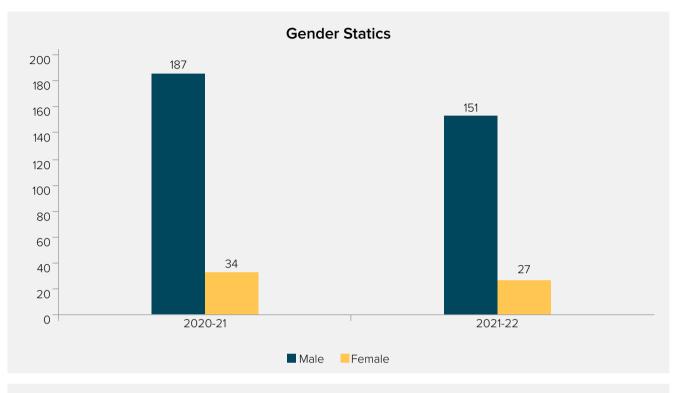


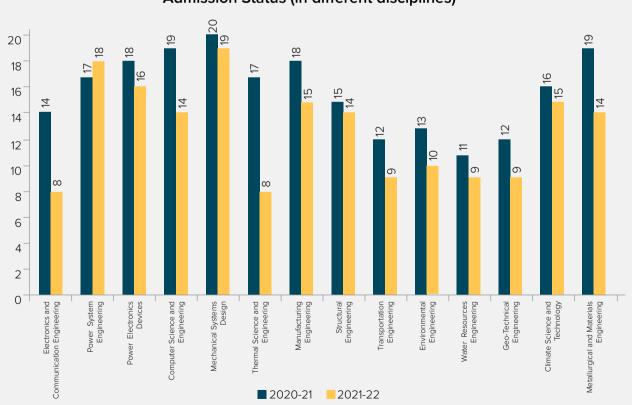
### Gender Statistics of students in B.Tech & Dual Degree Programe



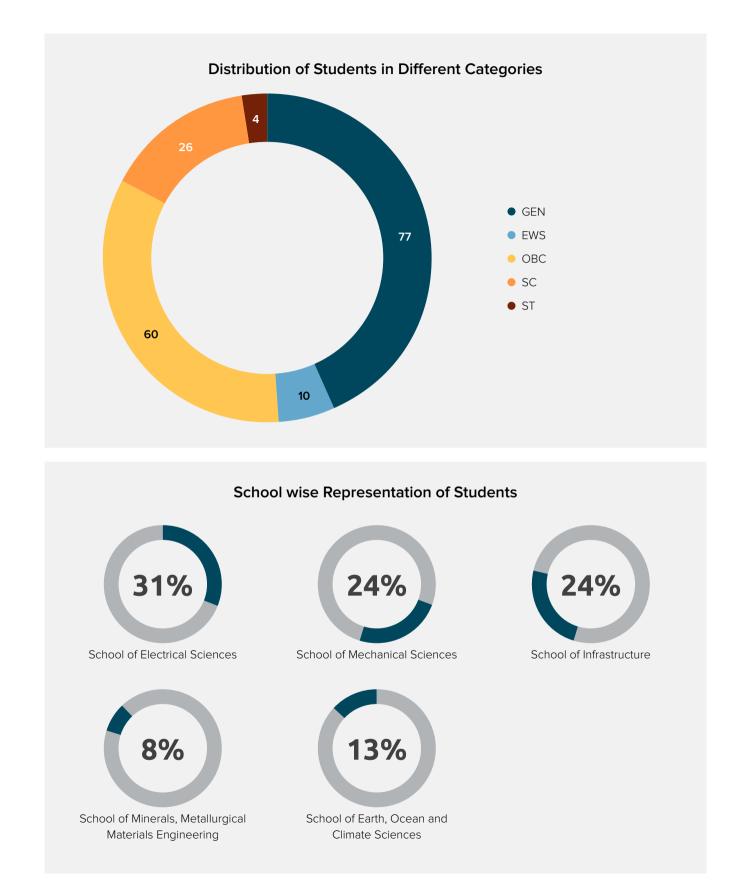
	201	6-17	201	7-18	201	8-19	201	9-20	202	0-21	202	1-22
	М	F	М	F	М	F	М	F	М	F	М	F
CE	54	1	65	10	65	3	71	14	72	22	78	13
EE	36	4	54	5	54	9	58	12	65	15	59	17
ME	58	0	76	4	72	12	82	20	84	21	88	19
CSE	38	1	52	8	51	10	58	13	61	16	62	16
MMME	17	2	25	1	23	5	30	6	30	8	14	7
ECE	32	6	34	4	34	6	36	7	41	10	41	10

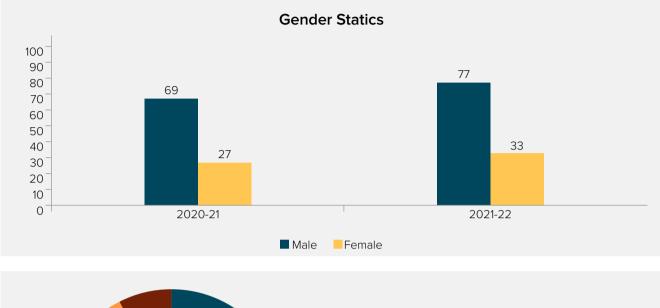
### M.Tech. Programme



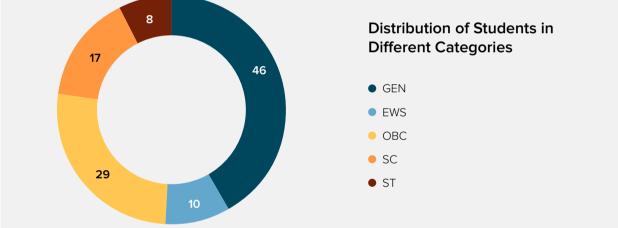


### Admission Status (in different disciplines)



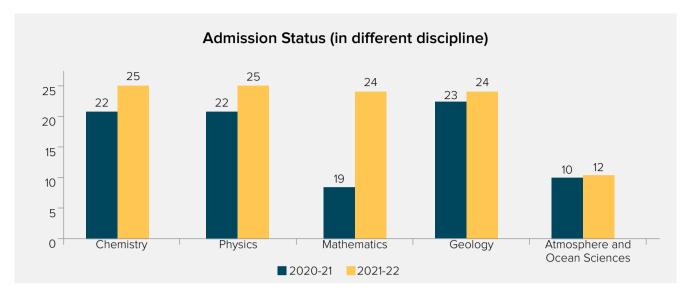


### Joint M.Sc. - Ph.D. Programme

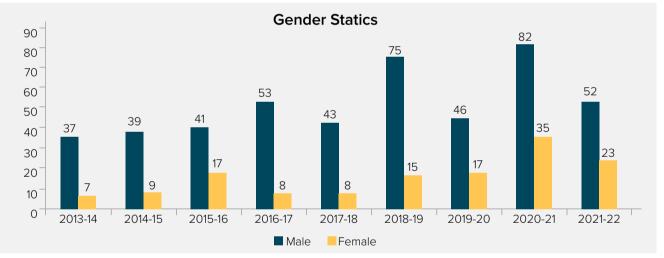


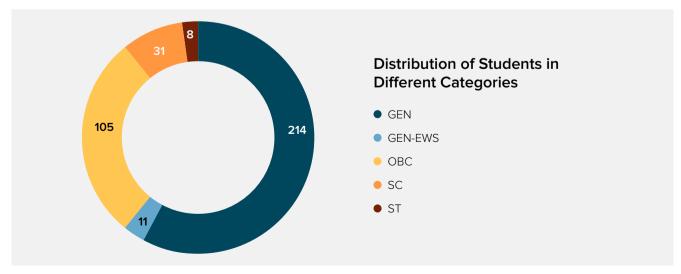
### School wise representation of Students

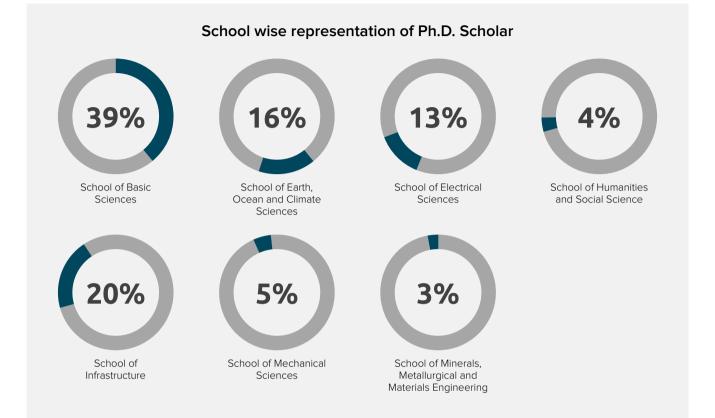




### Ph.D. Programme







### **Graphical Graduation Data (Last Three Years)**

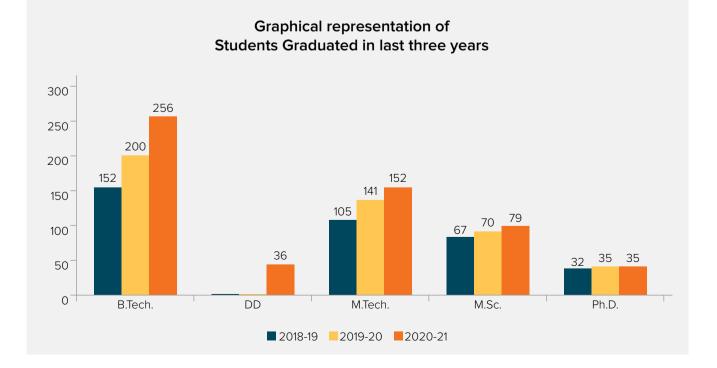
Disciplines	Ph.D.	M.Tech.	M.Sc.	B.Tech.
Graduation Data 2018-19				
Civil Engineering				32
Computer Science and Engineering				44
Electrical Engineering				35
Mechanical Engineering				31
Electronics & Communication Engineering		14		
Metallurgical and Materials Engineering				10
Material Science and Engineering		07		
Climate Science & Technology		15		
Mechanical Systems Design		13		
Thermal Science and Engineering		16		
Power System Engineering		11		
Structural Engineering		08		
Transportation Engineering		09		
Environmental Engineering		05		
Water Resources Engineering		07		
School of Basic Sciences	13			
School of Electrical Sciences	08			
School of Infrastructure	04			
School of Mechanical Sciences	03			
School of Humanities, Social Sciences & Management	02			
School of Earth, Ocean and Climate Sciences	02			

Disciplines	Ph.D.	M.Tech.	M.Sc.	B.Tech.
Atmosphere and Ocean Sciences				
Chemistry			17	
Geology			12	
Mathematics			21	
Physics			17	
Total	32	105	67	152
Graduation Data 2019-20				
Civil Engineering				32
Computer Science and Engineering		16		41
Electrical Engineering				37
Mechanical Engineering				35
Electronics & Communication Engineering		13		41
Metallurgical and Materials Engineering		18		14
Climate Science & Technology		15		
Mechanical Systems Design		19		
Thermal Science and Engineering		16		
Power System Engineering		13		
Structural Engineering		10		
Transportation Engineering		4		
Environmental Engineering		9		
Water Resources Engineering		8		
School of Basic Sciences	12			
School of Electrical Sciences	7			
School of Infrastructure	6			
School of Mechanical Sciences	4			
School of Humanities, Social Sciences & Management				
School of Earth, Ocean and Climate Sciences	3			
School of Minerals, Metallurgical and Materials Engineering	3			
Atmosphere and Ocean Sciences			9	
Chemistry			14	
Geology			18	
Mathematics			16	
Physics			13	
Total	35	141	70	200

### Graduation Data 2020-21

Discipline	Ph.D.	M.Tech.	M.Sc.	B.Tech.	Dual Degree
Civil Engineering				44	
Computer Science and Engineering		13		55	
Electrical Engineering				51	
Mechanical Engineering				46	
Electronics & Communication Engineering		15		40	
Metallurgical and Materials Engineering		06		20	
B.Tech. in Civil Engineering and M.Tech. in					10
Structural Engineering					
B.Tech. in Civil Engineering and M.Tech. in					06
transportation Engineering					
B.Tech. in Mechanical Engineering and M.Tech.					11
in Mechanical System Design					

Discipline	Ph.D.	M.Tech.	M.Sc.	B.Tech.	Dual Degree
B.Tech. in Mechanical Engineering and M.Tech.					09
in Thermal Science and Engineering.					
Climate Science & Technology		14			
Mechanical Systems Design		17			
Thermal Science and Engineering		17			
Power System Engineering		17			
Structural Engineering		04			
Transportation Engineering		06			
Environmental Engineering		03			
Water Resources Engineering		05			
Geotechnical Engineering		05			
Manufacturing Engineering		14			
Power Electronics and Drives		16			
School of Basic Sciences	08				
School of Electrical Sciences	11				
School of Infrastructure	04				
School of Mechanical Sciences	03				
School of Humanities, Social Sciences &					
Management					
School of Earth, Ocean and Climate Sciences	05				
School of Minerals, Metallurgical and Materials	03				
Engineering					
Atmosphere and Ocean Sciences			05		
Chemistry			20		
Geology			15		
Mathematics			21		
Physics			18		
Total	35	152	79	256	36



### Scholarship:

### B.Tech. & Dual Degree & Joint M.Sc.-Ph.D

Programme	Name of Scholarship	2021 (Batch)	2020 (Batch)	2019 (Batch)	2018 (Batch)	2017 (Batch)	2016 (Batch)
	MCM Scholarship	167	70	45	37	65	
B. Tech. & Dual	Free Studentship	15			6	1	
Degree	Financial Assistance	0		7	1	5	2
Joint M.Sc.– Ph.D.	INSPIRE & Other Scholarship	9	4	11			

### Awards & Medals and Participation in Conference

Programme	Awards & Medals	National Conference	International Conference
B. Tech.	10		
Dual Degree	1		
M. Tech.	8		
Joint M. Sc. – Ph.D.	6		
Ph.D.	35	8	3

### Special Events in 2021-22

Programme	Date
Senate Meetings	04.06.2021
	23.12.2021
10 <sup>th</sup> Annual Convocation	20.10.2021
14 <sup>th</sup> Foundation Day	12.02.2022
National Science Day	28.02.2022





# SCHOOL OF BASIC SCIENCES (SBS)

#### About the School

The School of Basic Sciences is a unique school with an emphasis on interdisciplinary research in areas of Physics, Chemistry, Mathematics and Biosciences.

### Presently SBS offers programs as follows:

- » Joint M.Sc.- Ph.D. in Physics, Chemistry and Mathematics
- » Ph.D. in Physics, Chemistry, Mathematics and Biosciences
- » Post-doctoral program

The School is proud to have two Centres of Excellence, namely MOE Centre of Excellence for Novel Energy

Materials (CENEMA) and S. K. Dash Centre of Excellence of Bio-sciences and Engineering & Technology (SKBET)

### **Statistics**

- » No. of faculty: 38
- No. of publications: 208

- » No. of Class Rooms with multimedia projectors: 6
- » No of Ongoing Sponsored Research Projects for 2021-22-43

### **Major Teaching Areas**

The school lends is support to basic science courses (Biochemistry, Chemistry, Physics and Mathematics) to the undergraduate (B.Tech.) programmes running at IIT Bhubaneswar in. In addition, the school offers full-fledged Master of Science (Joint M.Sc.-Ph.D.) programmes in Chemistry, Physics and Mathematics disciplines. The intake capacity in each of these M.Sc. Programmes is 20.

### **Major Research Areas**

The school enjoys a multitude of interdisciplinary research. However, the major research areas can be broadly categorized into the disciplines of Biochemistry, Chemistry and Biosciences, Mathematics and Physics.

### **Biochemistry**

Protein Chemistry and Spectroscopy, Structure-Function Elucidation of Various Small Heat Shock Proteins Related to Different Diseases (Cataract, Leprosy and Tuberculosis); AAA+ ATPase; gastrointestinal (stomach, pancreatic and colorectal) cancers, cancer biomarkers; cancer therapeutics; gut microbiota; pan-cancer analyses. Structure Function Studies on Peptide or Protein binding G-protein Coupled Receptors; Rational Design of Peptides / Proteins as Therapeutics Antimicrobial / Antiviral / Anti-inflammatory); Chemical and Cellular Biology; Computational Biology and Bioinformatics; Protein-Protein Interactions; Drug Design and Discovery

### Chemistry

There are three broad research areas in Chemistry research – inorganic, organic, and physical and theoretical chemistry.

**Inorganic Chemistry:** Biomedicinal Chemistry: T1, T2 and paraCEST based contrast agent for Magnetic Resonance Imaging; Fluorogenic and Chromogenic Chemosensor: sensing cations, anions and some hazardous and explosive molecules/ions.

**Coordination Chemistry:** Synthesis of [nxn] grid complexes and 3d-4f metal complexes and their magnetochemistry and Emission properties; Bioinorganic perspective of coordination complexes: Stabilization of unusually high oxidation states of metal ions; Ionic Liquids and their application; Synthesis and Coordination Aspects of Homo and Heterometallic Complexes; Metal-Based Anticancer/Imaging Agents; Functional Materials and Luminescent Materials; Nanoparticle-Based Sensors; Metal-Organic and Covalent Open Frame (MOF and COF) Compounds; Design of Functional Organometallics, Multimetallic Catalysis for Fine Chemicals, Novel Activation of C1-Platform Chemicals, Mechanistic studies of C-H, C-O, C- N, C-X activation on Organometallic Template, Green Chemistry: On-Water Catalysis, Nanoparticle catalysis.

**Organic Chemistry:** Heterocyclic Chemistry, Asymmetric synthesis using chiral pool approach; Enantioselective catalysis and new reaction methods; New molecular entities with biological properties; Dipolar Cycloadditions; C-H functionalization, Pericyclic reactions, Metathesis, Umpolung chemistry, Radical chemistry, traditional & newer functional group transformations for application in marine alkaloids synthesis, terpenoids and

polyketide based natural products; Carbohydrate Chemistry, novel synthetic methods development, Bioactive Natural and Unnatural Products synthesis; Supramolecular Chemistry, Molecular Recognition, Polymer chemistry: Synthesis of Chiral Polymers and their applications in chiral induction; Synthesis of Achiral and Chiral Resins and their applications in synthesis; PIL stabilized metal nanoparticles and their applications; Polyelectrolyte-DNA interaction studies; PILs for gas separation membranes; Synthesis of MIPs and resins for nuclear waste treatment; Synthesis of (RAFT derived) ionic, pH, temperature and solvent responsive homo- and block copolymers towards their self-assembling for drug delivery; Design, Synthesis and Characterization of Peptides; Anticancer and antimicrobial activities of plant-derived natural products.

**Physical, Theoretical, and Computational Chemistry:** Molecular modeling; molecular dynamics (MD) simulations; Development and application of multi-configurational quantum mechanical methods to study energetics and dynamics of bound and transient states; Investigation of photochemical reactions in the non-adiabatic ("beyond-Born-Oppenheimer") realm; Computational modeling of chemical reactions using quantum mechanical (QM) and mixed quantum mechanical – molecular mechanical (QM/MM) methods; Investigation of bacterial resistance toward beta-lactam based antibiotic drugs using QM/MM methods.

### **Mathematics**

The main areas of research in Mathematics are Analysis, Applied Functional Analysis, Complex dynamics and Fractals, Matrix Theory, Graph theory, Optimization Theory, Queueing Theory, Applied Probability Models, Computational Fluid Dynamics, Numerical Methods, and Soft Computing

### Physics

### Experimental:

- » Expertise on PVD, PLD, CVD, MBE, and MOCVD growth processes and methods.
- » Expertise on Transport measurements and other Physical property measurements including magnetic and electronic properties, scanning tunneling microscopy and spectroscopy, electron microscopy, X-ray and Ion Scattering, cryogenic temperature measurements.
- » Expertise on sensors and device fabrication and their applications.
- » Growth, characterization and prototype applications of low-dimensional systems (1D and 2D materials) in the realm of nanoscience and nanotechnology and quantum technology, surface and interface physics
- » Novel materials for energy applications, sensor applications, industrial applications, and strategic research.
- » Strongly correlated electron system, the study of real-time kinetics including ultrafast dynamics
- » Optical fibre sensors, nano- and bio-photonics, terahertz sensing and spectroscopy, waveguide & interferometer, materials for quantum optics.

» Accelerator ion beam based research such as engineering nanostructured materials, ion-matter interaction processes, ion beam induced synthesis and characterization with ion beams, atomic and molecular surface physics.

### Theory/Computational:

- » Expertise on computational physics and quantum information.
- » First principles molecular dynamics simulations, quantum transport, quantum biology.
- » Non-equilibrium statistical mechanics, nanomagnetism, quantum dissipation and decoherence.
- » Computational condensed matter physics; electronic and magnetic properties of 2D materials; functional materials; energy storage; chromatin folding and DNA transcription.
- » Theoretical and experimental high energy physics: quantum field theory, quantum information, string theory, black holes (theory) and beyond standard model physics (experiment – international collaborations)

#### Theme areas:

- (a) Emergent phenomena and energy materials: 2D layers, nanostructures for solar cells, supercapacitors, and fuel cells
- (b) Device physics: sensors, photonic devices, electronics, and health care
- (c) Computational condensed matter physics
- (d) Quantum technology: quantum information (theory), Qbits (future), devices based on quantum technology.

The discipline of Physics, School of Basic Science will focus on synthesis and detailed characterization (structural, electronic, optoelectronic, topological, and correlated quantum states) of materials based on family of two-dimensional (2D) transition metal dichalcogenides (TMDs) (MX2 where M is metal centres such as Mo, W, and X is chalcogen such as S, Se, Te). Effectively, the plan for the next five years is to build background knowledge which will be essential for working on technologies for the realization of quantum computers. Briefly, the proposal focuses on emergent electronic properties of 2D TMDs structures, quantum nanophotonics, and theoretical aspects of quantum transport and dynamics.

Two-dimensional materials have been at the forefront of condensed matter physics since more than a decade. Joining graphene and hBN are a family of 2D TMDs which exhibit diverse electrical properties ranging from metallic, semiconducting, ferromagnetic and superconducting to topological phases. TMDs have also opened an avenue to create material structures through "materials by design" by realizing van der Waals (vertical) and lateral heterostructures. Multiple degrees of freedom (e.g. properties of Individual TMD layers, their stacking, and the relative azimuthal rotation between the layers in vdW HS; properties of Individual TMD layers and type of interface in lateral HS) enable us to synthesize "materials by design" which is not present in conventional materials system. Consequently, the complex lateral and vertical heterostructures formed by 2D TMDs will provide even richer and versatile platform to explore new emergent and complex phenomena which are rather weak or absent in their pristine counterparts.

These materials will have potential applications in the realization of quantum bits as well as next-generation solar cells, transistors, diodes, p-n photodiodes, and CMOS devices. While new exotic physical phenomena and their technological importance are envisaged in various TMD structures, extensive experimental studies need to be carried out for exploring these phenomena. The discipline of physics, School of Basic Science, IIT Bhubaneswar has the following plan:

- Synthesis: We propose to develop new mathematical 1. and computational models to advance the fundamental understanding of the growth of heterostructures in order to predict layer morphologies and to provide a rationale framework to optimise the growth process. Using this understanding, we plan to synthesize various 2D TMD materials by harnessing the concepts of kinetics and thermodynamics of growth reactions. We will mainly use Chemical Vapour Deposition (CVD) technique to realize TMD structures. We aim to synthesize ternary alloys of 2D TMDs materials, vdW (vertical) and lateral TMDs. While ternary alloys of will allows more precise tuning of their electronic Properties, lateral and Vertical heterostructures will possess fascinating and exotic 1D electronic states at their interface.
- Structural characterization: Structural characterization 2. of the synthesized TMD structures will be carried out using Raman spectroscopy, Atomic Force Microscopy (AFM), Scanning Tunneling Microscopy (STM). AFM and STM measurements will be used to image the TMD structures for the determination of the lateral size and layer thickness for the optimization of the growth process. AFM also allows to record wealth of information such as maps of elastic modulus, adhesion, deformation, local surface conductivity, and contact potential. Additionally, STM measurements will be used to record images of the TMD structures with atomic resolution capturing information about surface reconstructions, superlattices like moire pattern in vdWheterostructures as well as electronic properties like the electronic density of states, work function. Further, we will use Raman spectroscopy to investigate the electronic, optical, and lattice-vibration properties of the synthesized structures.

- 3. Electrical transport measurements and devices: We will realize devices based on TMD structures and investigate their electronic properties through electronic transport in a cleanroom environment. Towards this end, we will fabricate devices in Field Effect Transistor (FET) and Hall bar geometries using large area TMD structures. FET geometry will allow us to measure carrier type, carrier mobility (often used as a figure of merit), and carrier density in the TMD structures.
- 4. Quantum optical measurements: We will study electrical, optical and magnetic characterization of different 2D quantum dot emitters (QDE) and their heterostructures for generation of single photon. Further, the synthesized QDEs will be integrated with Nanowires and we will study its anti-bunching behaviour, saturation measurement and coupling efficiency towards single photon emitter: experimentally and computationally. Further, to have more insight into the coupling of the QDEs to the nanowire, polarization dependence excitation and emission will be done. These systems will be used for the development of interferometer, resonators and single molecule detection.
- 5. Computational modeling: We will conduct a large scale computational search to identify novel compositions of TMDs and their heterostructures. Furthermore, interlayer stacking sequence and different orientation of the adjoining monolayers further expands the composition phase space of TMD materials.

This class of materials is so broad and varied in the composition that to identify the "best performers" in the enormous parameter space through experiments is impractical and expensive. As a result, a high-throughput computational screening approach is needed where predictions of chemical and mechanical stability, changes in interlayer spacing, strain in the layers during heterostructure formation and basic electronic properties can be made efficiently. We will also devise the highthroughput approaches for novel composition discovery and property predictions based on existing approaches such as genetic algorithm and machine learning.

6. Quantum dynamics and quantum thermodynamics: To enhance the deeper understanding of 'designer material' devices and to prepare for the quantum-bit based technologies, we will investigate the fundamentals of quantum dynamics, quantum transport at the nanoscale, and quantum thermodynamics. Starting from the first principles, we aim to develop new methodologies and will try to implement new computational treatments to address the novel phenomenon in quantum dynamics, thermal energy management, and Optoelectronics is essential for the realization of quantum computers.

#### **Details of Strength of Physics Discipline**

We strongly believe that the faculty members at the Discipline of Physics, School of Basic Sciences, IIT Bhubaneswar are among the best groups in the scientific community in the world working in the areas of theoretical and experimental condensed matter physics, Nano and micro-photonics, open quantum systems, black holes and string theory, experimental high energy physics, and cosmology.

Further, the faculty members have national and international collaboration with groups from many renowned and prestigious universities and institutes such as TIFR Mumbai, TIFR Hyderabad, IISER Pune, ICTS Bangalore, IISc Bangalore, University of Toronto, Canada, NTU Singapore, National University of Sydney, Aalto University, Finland; Columbia University, New Jersey Institute of Technology, Stanford University, Kings College London, TU Vienna, and KU Leuven.

### **State of the art Facilities**

The School has procured state-of-art equipment to pursue advanced research. The following advanced instrumentation facilities have been established through central instrumentation facility:

- » X-ray Diffractometers(XRDs)
- » Scanning Electron Microscope (SEM)
- » Raman Spectrophotometer
- » Rheometer Nuclear Magnetic
- » Resonance (NMR)
- » Physical Properties Measurement System (PPMS)
- » Gas Chromatography-Mass Spectrometry(GC-MS)

IIT Bhubaneswar is a member of both Belle and Belle II collaborations at KEK, Japan and a member of CMS collaboration, at Large Hadron Collider (LHC), CERN, Geneva.

The School is fully equipped with a central computing server system and is integrated and functional for all sorts of high computing research and analysis.

### **SBS** Laboratories

The School of Basic Sciences presently has the following laboratories equipped with relevant modern equipment and instruments:

- » Atomic Molecular and Surface Physics Lab
- » Biochemistry Lab
- » Bioinstrumentation Lab
- » Chemical Biology Lab
- » Coordination Chemistry and Materials Chemistry Lab
- » Coordination Chemistry Lab

- » Theoretical Chemistry Lab
- » Quantum Chemistry Lab
- » Experimental High Energy Physics Lab
- » M.Sc. Chemistry Lab
- » M.Sc. Mathematics Lab
- » M.Sc. Physics Lab
- » Magnetic Materials Lab
- » Nano Photonics & Plasmonics Lab
- » Nanostructure & Soft Matter Physics Lab

- » Organic Chemistry Lab
- » Organic Synthesis Lab
- » Protein Chemistry Lab
- » Quantum Chemistry Lab
- » Renewable Energy Lab
- » Supramolecular Chemistry Lab
- » Undergraduate Chemistry Lab
- » Undergraduate Physics Lab

### Infrastructural strengths:

#### The following experimental and theoretical research facilities are currently available.

Facility	Research
Physical Property Measurement System (PPMS)	For electronic transport measurements at low-temperature (2K) and high magnetic field (9T)
Pulsed Laser Deposition (PLD) setup	For creating dissimilar heterostructures
Field Emission Scanning electron Microscope (Carl Zeiss)	For morphological and elemental characterization of the synthesized TMD structures
Raman Spectrometer - (triple Raman Spectrometer, T64000, Horiba)	For optimization of high quality growth of TMDs structures
Solar Simulator	For solar-cell measurements
Scanning Tunneling Microscope (ambient condition) - in the process of procurement	For structural and electronic characterization of the TMD structures
Wire bonder	For bonding devices on sample holders
Single crystal and powder X-ray Diffractometer	For structural characterization and phase analysis
Source meter + Impedance analyzer + Nano-voltmeter	For electrical characterization
Time-resolved photoluminescence	For study of fast electronic deactivation processes
Electron- and lon-implantation setup (Indigenously developed)	For ion/electron modification of TMDs and other nanomaterials
Optical microscope	For optical access to the structures
MATLAB + LabView + Comsol + VASP	For computational simulation and modelling of materials and material properties





# School of Earth, Ocean and Climate Sciences (SEOCS)

### About the School

The School of Earth, Ocean and Climate Sciences (SEOCS) has established in 2012 to provide an intellectual, congenial and vibrant atmosphere for developing state-of-the-art education and research in Earth System Sciences through an integrated inter-disciplinary systemic view of Earth-Ocean-Atmospheric interactions processes for sustainable development. Earth is a complex and dynamic system. While understanding and appreciating its work is essential; knowledge of its dynamics is not only important but also necessary for sustainable living. Earth scientists, atmospheric scientists, and oceanographers have challenging responsibilities to help guide the planet through the current climate crisis.

Though rich in natural resources, Odisha is also prone to natural calamities and extreme events such as tropical cyclones, heavy rainfall, heatwave, thunderstorm and lightning, flood, etc., drought. The region also faces massive problems of pollution due to large mining operations and coal combustion, coastal erosions, mangrove depletion, etc.

The famous Chilka lake and bio-reserve areas like Similipal are under severe threats. Even though these appear as local and regional problems, they have far-reaching global implications. Among many other global research thrust areas, SEOCS is also contributing to these aforementioned regional research challenges.

### **Academic Programs**

Presently SEOCS offers programs as follows:

- » Joint M.Sc. Ph.D. in Geology and Joint M.Sc. Ph.D. in Atmosphere and Ocean Sciences
- » M. Tech. in Climate Science & Technology
- » Ph.D. in Geological, Atmospheric and Oceanic Sciences

The School offers postgraduate-level degree programs besides doctoral research avenues in the areas of Geosciences and Climate Sciences intending to impart state-of-the-art education and training on both fundamental and applied aspects of Earth, Ocean and Climate Sciences besides enabling the students to carry out cutting edge research and innovation in Earth System Sciences.

The School aims to create well trained, educated and competent human resource to address various issues like protection of water and air, development of renewable energy, hydrocarbons, disaster warming, prediction and preparedness, watershed and flood management, coastal erosion, environment pollution assessment, resource conservation and recycling, development of clean technologies, climate change prediction and impact on socio-economic well-being.

The School's research is focused on Physical oceanographic monitoring and oceanographic modeling. The research in the atmospheric sciences focused on understanding Indian Summer Monsoon and Tropic Cyclone dynamics and future predictions, besides environmental modeling. The Geoscience research is focused to resolving and understanding the saltwater intrusion into coastal aquifers, groundwater pollution, coastal processes, environmental monitoring and assessment, understanding of paleomonsoon and paleoclimate in centennial to the multi-millennial time scale, crustal deformations etc.

### **Statistics**

- » Number of Faculty: 11
- » Post-doctoral Fellows: 02
- » Ph.D. awarded/submitted: 07/11
- » Ph.D. students enrolled: 12
- » Number of Ph.D. students: 36
- » Number of M.Sc. students: 67
- » Number of M.Tech. students: 25
- » Number of Publications (2021): 76
- » Ongoing Sponsored Research Projects = 16

### State-of-The-Art-Laboratories

The School has established state-of-the-art facilities for Geophysical and Geochemical analyses, Petrological and Paleontological studies, Paleoceanography and Paleoclimatology, Hydrogeochemical and Environmental studies, Remote Sensing & GIS, Modelling and Visualization Weather Analysis and Forecasting, and Simulations of Atmospheric and Oceanic Processes. The list of laboratories are as follows

- » Advance Geochemistry Laboratory
- » Advanced Mineralogy & Crystallography Laboratory
- » Applied Paleontology Laboratory
- » Climate Observatory
- » Cloud physics
- » Computational Geosciences & Geophysical Laboratory
- » Geophysical Lab
- » Hydrogeological and Hydro-metrological Laboratory
- » Instrumentation and Observation Laboratory
- » Modeling and Visualization Laboratory
- » Ocean Analysis and Modeling Laboratory
- » Ore Geology Laboratory
- » Petrology & Geochemistry Laboratory
- » Remote Sensing and GIS Laboratory
- » Structure Geology Laboratory
- » Sedimentology Laboratory
- » Paleoclimatology and Paleoceanography Laboratory
- » Weather Analysis and Forecasting Laboratory

The institute has also got possession of land along the coastline near Loudigaon adjacent to IISER Berhampur, to monitor the land-sea interaction processes in and around the Bay of Bengal region. It is envisaged to establish a coastal observatory for collecting real-time observational data and closely monitor the Bay of Bengal. Several national and international institutes have come forward to collaborate and address challenging scientific problems.





# School of Electrical Sciences

### About the School

The School of Electrical Sciences was established in the year 2008. Presently SES offers the following academic programs:

- » 4-year B. Tech. in Electrical Engineering, Computer Science & Engineering, Electronics and Communication Engineering
- » 5-year dual degree (B. Tech. and M.Tech.) in Electrical Engineering, Computer Science & Engineering
- » M. Tech. in Electronics & Communication Engineering, Power System Engineering, Computer Science and Engineering and Power Electronics and Drive (July 2019)

» Ph.D. Programmes: In all major areas of Electrical Sciences

The school has a distinguished record in both teaching and research. Faculty members are active in research and development and are publishing their research findings in highly reputed national and international leading journals and in national and international conferences. In addition, the faculty members are engaged in a number of consultancies and in project activities sponsored by government and leading industries.

### **Statistics :**

- » No. of Faculty: 29
- » No. of Ph.D. Students enrolled: 57
- » No. of Ph.D. Students Graduated: 41
- » No. of M. Tech. Students Enrolled: 116
- » No. of B.Tech.. Students Enrolled: 811
- » No. of publications (2021): 132
- » No of Ongoing Sponsored Research Projects for 2021-22: 34

### **State of the Art Facilities**

The School has numerous state of the art laboratories and facilities including VLSI system design and fabrication lab, RTDS lab, Renewable Energy system lab, Radiating system design lab and computational facilities for application development and research. Full-fledged FPGA implementation and development facilities linked with embedded system tools and MATLAB provide a smooth platform for ambitious developmers.

#### **Laboratories**

The School has full-fledged laboratories to train the undergraduate, postgraduate students, and research scholars from the very basics to modern trends in the field of Electrical Engineering, Electronics and Communication and Computer Science Engineering. Students utilize the modern lab facilities and equipment to carry out design and testing of various circuits, projects, programs, and proof of concepts of various research aspects in electrical, electronics, communications, and computer engineering. At present, there are 34 laboratories that include:

- » Advanced Communication Lab
- » Algorithm Lab
- » Analog & Digital Electronics Lab
- » Basic Electronics Lab
- » Biomedical Signal Processing Lab



- » Cloud Lab
- » Communication Engineering Lab
- » Computer Architecture and Embedded Systems Lab
- » Computer Networking Lab
- » Control & Instrumentation Lab
- » Database Systems Laboratory
- » Digital Signal Processing Lab
- » Electric Machines Lab
- » Electrical Technology Lab
- » FACTS and Power Quality Laboratory
- » High Performance Computing laboratory
- » Image & Video Processing Lab
- » Measurement and Instrumentation Lab
- » Micro-fabrication and Characterization Lab
- » Multimedia Lab
- » Operating System & DBMS Lab
- » Optical Communication Lab
- » Power Electronics & Electric Drives Lab
- » Power Quality & FACTS Lab
- » Power System Analysis & Protection Lab
- » Real Time Digital Simulation (RTDS) Lab
- » Real time Embedded Systems Lab
- » Real-time Signal Processing Lab
- » Renewable Energy Systems
- » RF, Microwave & Characterization Lab
- » Security Lab
- » Signal Processing Lab
- » Smart Grid & Hybrid Energy System Lab
- » Telemedicine Lab
- » Wireless Communication & Sensor Networks Lab
- » VLSI Simulation Lab





# School of Humanities, Social Sciences and Management (SHSS&M)

### About the School

The School aims at imparting inter-disciplinary education in Humanities and other Social Sciences to its students. It has developed into a full-fledged department having expertise in three different disciplines – Economics, English and Psychology. Having a team of six young and dynamic faculties, well-versed in inter-disciplinary areas like environment, finance, management, personality development, communication skills and neural science, this school seeks to generate erudite citizens who would be perfect amalgamation of technical knowledge, creativity, empathy and social responsibility.

### **Statistics**

- » Number of Ph.D. students graduated: 09
- » Number of Ph.D. students enrolled at present: 18
- » Number of Ph.D. students submitted the thesis: 01
- » Ongoing Research Projects: 01
- » Completed Research Projects: 01
- » Academic Awards / Fellowships / Funding: 3
- » No. of Computers: 27
- » No. of Faculty: 8
- » No. of Major Equipment's: 1
- » Industry and academic conferences attended / organized: 20
- » Number of research papers published: 17

### Integrated Computational Lab with Data Bank (ICLDB)

The ICLDB is meant to be used by the research scholars and faculty members for Computation and forecasting of various socioeconomics variables.

### **Research Areas**

- » English language training programme
- » Forest Resource Management
- » Impact of climate change on Agricultural sector
- » Mining Sector and Productivity; Valuation of natural resource
- » Solid Waste Management
- » Insurance
- » Indian Writing in English;
- » Migrant/Diaspora LiteratureTravel Literature; Autobiographies; Creative Writing;
- » Film Studies and Popular Culture
- » Postcolonial World Literature; American Literature; Canadian Literature
- » Cross-cultural Communication; Business Communication
- » Clinical Psychology : Cognitive Neuroscience, Cognitive Psychology, Hemispheric Lateralisation, Personality, Neurolinguistics
- » Developing Critical Vocabulary of ESL Learners; Cognitive Reading Skills; Second Language Acquisition; Teacher Education and Development; Communication Skills; Technology and Language Learning
- » Non-Western Philosophical Schools: Advaita Vedanta, Buddhism and other schools of Indian Philosophy.



# School of Infrastructure (SIF)

### About the School

School of Infrastructure at IIT Bhubaneswar has come up to dedicate its excellence in engineering education, creation of knowledge, innovation in research and leadership in professional services. The mission of the School is to offer an unbounded academic and research environment in undergraduate, postgraduate and doctoral programs. The academic activities of the School emphasize on a comprehensive understanding of fundamental principles, the development of creative ability to handle the challenges of realworld Civil Engineering problems, and the analytical ability to solve problems having interdisciplinary in nature. Our goal is to do research in challenging engineering problems and provide efficient engineering solutions in the various sub-disciplines of Civil Engineering. The school has a strong focus in the research areas of Environmental Engineering, Geotechnical Engineering, Structural Engineering, Transportation Engineering and Water Resources Engineering.

### Presently the School offers programs as follows

- » B. Tech. in Civil Engineering, Dual-degree B. Tech in Civil Engineering + M. Tech. in Environmental Engineering, Dualdegree B. Tech in Civil Engineering + M. Tech. in Structural Engineering, Dual-degree B. Tech in Civil Engineering + M. Tech. in Transportation Engineering
- M.Tech in Environmental Engineering, M.Tech. In Structural Engineering, M. Tech. in Transportation Engineering, M.Tech. In Water Resources Engineering and M.Tech. in Geotechnical Engineering
- » Ph.D. Programmes

The Department is actively involved in basic and applied research and consultancy and provides high quality technical advisory support through various R & D projects and consultancy to various organizations. The School also encourages its students to engage in extracurricular activities, promotion of team spirit, and refining their budding managerial skills.

### **Statistics**

- » Number of Faculty: 21
- » Number of Ph.D. students enrolled at present: 41
- » Number of M.Tech students: 76
- » Number of Dual Degree students: 24
- » No. of publications (2021): 107
- No of Ongoing Sponsored Research Projects for 2021-22:
   21

### **State of the Art Facilities**

The School is having an Advanced Computational Laboratory facility with modeling and simulation packages like Staad Pro, Staad Pro Foundation, PLAXIS 3D, ABAQUS, HYDRUS 3D, VMODFLOW, Matlab, AutoCAD and Gid for practical training in handling real-world civil engineering problems.

The Environmental Engineering Laboratory of the School is equipped with state-of-the-art equipment like Ion chromatograph, Double beam UV visible spectrophotometer, HPLC, TOC analyzer, high speed centrifuge, respiratory BOD analyzer, AAS, GC, Freeze Dryer, Radiometer, UV-Vis. Spectrophotometer, Zeta Potential cum Particle Size Analyzer, etc. for carrying out various sophisticated analyses of water and wastewater.

The Geotechnical Engineering Laboratory houses advanced instruments such as Testing frames with O-ring, large sieve shakers, GPR, Cyclic Triaxial Setup, Laser Profilometer, Flexible Wall Permeameter, Geotechnical centrifuge, Geosynhtetics testing apparatus, Controlled humidify chamber, Device for thermal property, Impedance analyzer, Swelling pressure apparatus, Laser sensing system etc.

The Structural Engineering and Concrete Technology Laboratories house state-of-the-art facilities such as Dynamic Actuators, Shake Table, sub-sonic wing tunnel, Servo Controlled Compression Testing Machines, NDT Equipment, Corrosion Analyser, etc. for analysis and evaluation of various types of civil engineering structures. The Transportation Engineering Laboratory is equipped with state-of-theart instruments to carry out advanced experiments and simulations works such as bituminous mix design, pavement evaluation, rutting measurement, evaluation of multi-modal urban transportation network, traffic flow etc. The Laboratory facility houses sophisticated instruments such as Dynamic Shear Rheometer, Repeated Load Triaxial Test, Wheel Tracking Machine with Roller Compactor, Superpave Gyratory Compactor etc. Besides the lab has a computational facility for those working in the Transportation System Planning and Traffic Engineering field.

The Water Resources Engineering Laboratory is capable of carrying out various experiments and simulations relating

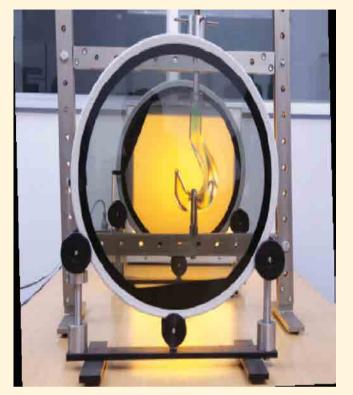
to fluvial hydraulics, flow through submerged and emergent vegetation. The laboratory is equipped with state-of-theart equipment like 20 m recirculating hydraulic flume, Down looking and Side looking Acoustic Doppler Velocimeters, Acoustic Doppler Profilers, Recirculating Tilting Flumes with Wave Generator and sensors like Flow Visualization Apparatus, MIKE\_SHE software, Water Depth Recorder, Digital Flowmeter, etc.

### Laboratories

The School of Infrastructure currently runs with eight wellequipped undergraduate and postgraduate laboratories as follows:

- » Advanced Computational Laboratory
- » Concrete Technology Laboratory
- » Engineering Mechanics Laboratory
- » Environmental Engineering Laboratory
- » Geotechnical Engineering Laboratory
- » Geoenvironmental Engineering Laboratory
- » Groundwater Hydrology Laboratory
- » Hydro-meteorology Laboratory
- » Soil Dynamics Laboratory
- » Structural Engineering Laboratory
- » Surveying Laboratory
- » Transportation Engineering Laboratory
- » Water Resources Engineering Laborator

All of the above laboratories are equipped with modern facilities to carry out high-end research works in any of the micro specializations of the Civil Engineering field. In addition to the state-of-the-art laboratories, the classrooms are equipped with multimedia projectors. Besides, the school is having 20 faculty cabins, Five classrooms, 80 desktop computers, One seminar room, and one classroom with an audio-visual facility, recreation room, and conference room. The school is collaborating with various agencies/ industries like Airport Authority of India Ltd, NBCC, Vedanta Limited, IDCO, Voltas Ltd, Odisha Mining Corporation (OMC), RWSS (Govt. of Odisha) and Tata Steel Ltd in research and consultancy work. Currently, the school is working on 12 research projects. The school has 3 on-going SPARC proposals. Besides this, our faculty presents regularly research papers at conferences in India & abroad, conducts workshops and conferences for the dissemination of research findings. Recently, lectures from foreign faculty were organized from 22 February - 14 April 2021 for UG Freshers, All BTech and Dual degree students in Civil Engineering to provide them updated knowledge and expose them to various disciplines of civil engineering.





# School of Mechanical Sciences (SMS)

### About the School

The School of Mechanical Sciences at IIT Bhubaneswar endeavors to be both globally competent and locally relevant.

### Presently the School offers programs as follows

- B. Tech. in Mechanical Engineering, B. Tech. in Mechanical Engineering + M. Tech. in Mechanical System Design, B. Tech. in Mechanical Engineering + M. Tech. in Thermal Science & Engineering, B. Tech. in Mechanical Engineering + M. Tech. in Manufacturing Engineering.
- » M. Tech. in Mechanical System Design.
- » M. Tech. in Thermal Science and Engineering.
- » M. Tech. in Manufacturing Engineering.
- » Ph.D. Programmes

Thrust areas of the School include Systems design, Energy & Environment, Advanced Manufacturing, Autonomous Robotics,

Agricultural automation and Product Design. The faculty members of the school are also involved in basic research in their own areas of specialization while also coming together to blend their shared expertise in creating technologies, products and processes that will enrich both the national and local economy. The school sees its role in nation-building via three important avenues of contribution – building of (i) human, (ii) knowledge and (iii) wealth capitals through the creation of a comprehensive idea-to-industry cycle.

#### **Statistics**

- » No of faculty: 19
- » No. of B. Tech Students: 213
- » No. of Dual degree: 170
- » Number of M. Tech. Students: 98
- » No. of publications 2021: 79

### State of the Art Facilities

The Advanced Product Development Laboratory houses an advanced Stratasys 3D-printer, high-end FORTUS 400 FDM based rapid prototyping machine and a high accuracy 3-D Optical Profilometer.

The thermo-fluid laboratory has NEXA PEM fuel cell training system, Mach-Zehnder Interferometer for visualization of various heat transfer phenomena, Hotwire anemometer, 2D time-resolved PIV system, and a Differential scanning thermometer.

The advanced manufacturing laboratory has various inhouse developed equipment such as 400W Fiber laser micro workstation, Laser-Milling Hybrid processing and a Pulsed Micro-Electroforming. Besides, the lab also houses CNC Router with digitizer for Reverse Engineering, CNC milling, Wire EDM and Gear hobbing machine.

### **Laboratories**

The school has the following laboratories with major equipment's:

### Advanced Manufacturing Laboratory

Optical Profilometer, Profile projector, Grinders, Laser-based Micro-machining Workstation.

### CAD/CAM/CAE Laboratory

The school has a computational laboratory consisting of 45 workstations installed with various software packages like Ray Tracing software, ANSYS, SolidWorks, NASTRAN, Hyper works, Pro-E, CATIA, ADAMS, COMSOL, MATLAB, Lab VIEW, ASAP-PRO, DELMIA, Smart Team and Tecplot360

### Sense & Process Laboratory

Sound Impedance Tube, Handheld Sound Analyzer.

### Materials Testing Laboratory

Hardness testing machines: Rockwell, Brinell, Vickers, Spring testing machine, Torsion testing machine, Rotary bend fatigue testing machine, Erichsen cupping test machine, Photo-elastic bench, Izod-Charpy impact tester and 100 ton Universal testing machine.

### **Opto-Thermal Lab**

Mach-Zehnder Interferometer setup

### Machine and Mechanism Laboratory

Epicyclic gear train apparatus, Static and Dynamic Balancing, Whirling of shaft, Gyroscope, Governors, Anti-Friction bearing, Hydrodynamic lubrication, Basic kinematics demonstrations.

### **Fluid Dynamics Laboratory**

4 Channel hot wire anemometer, 70 cfm 13 bar screw type compressor experimental set ups for measurement of fluid viscosity, Flow measurement equipment, Measurement equipment for forces on immersed bodies, Schlieren flow visualization setup, Kaplan turbine, 3 axis force sensor, Pitot probe with traverse and a 2D time resolved PIV.

### **Micro-fluidics Laboratory**

High speed cameras, Inverterted flouroscence microscope, Inverted microscope, Syringe pumps, Droplet dispenser and High end work stations.

### **Heat Transfer Laboratory**

Radiation Heat Transfer Unit, Unsteady State Heat Transfer Unit, Combined Cycle Refrigeration Unit with Cycle Inversion Valve, Critical Heat Flux Boiling Heat Transfer Unit, 5Å~3 Tube Bundle Boiling Heat Transfer Testing Setup, PCM Based Electronic Chip Cooling Setup, Contact angle goniometer, Differential scanning thermometer, Solar, Filament drowse condensation unit.

### **IC Engine Laboratory**

Variable compression ratio engine, Axial flow gas turbine unit, Flame propagation and stability unit, NEXA fuel cell training system, 4 stroke 4 cylinder CRDi Diesel engine with open ESU and Exhaust gas analyzer.

### **Advanced Product Development Laboratory**

Fused deposition method based rapid prototyping production system, Optical three dimensional (3D) profiler system.

### **Artificial Intelligence and Mechatronics Lab**

Stewart platform, Humanoid robot platforms (Bioloid and Lamark), Manipulator arm, Hexapod robot, Four wheeled robots, Tabletop CNC milling and Turning machines.

### Advanced Manufacturing Laboratory

Optical profilometer, Grinders, Laser-based micro-machining workstation.

### **Metrology Laboratory**

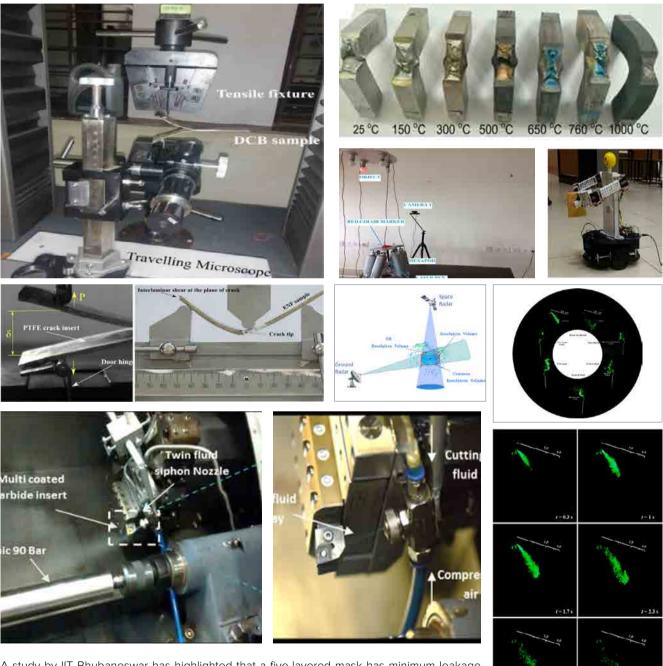
Profile projector, Height master, Precision surface plate, and other measuring equipment's.

### **CWF** Laboratory

TIG and MIG welding, General purpose belt grinder and surface polisher, Hydraulic specimen mounting press, Induction furnace, Resistance furnace, Foundry equipment and machinery, Muffle furnace, 80 Ton hydraulic press.

### Machine Tools and Machining Laboratory

Wire cut EDM, Ultrasonic drilling cum milling machine, CNC vertical milling center, Master gear hobbling, Radial drilling machine, Industrial grinder, Lathe machine, Milling machine, Hydraulic surface grinder, Die sinking EDM, Piezoelectric type 6-component dynamometer, Lapping machine, Talyrond (surface roundness measurement).



A study by IIT Bhubaneswar has highlighted that a five-layered mask has minimum leakage of the droplets which may trigger the airborne transmission of COVID-19 and other similar diseases





# School of Minerals, Metallurgical and Materials Engineering (SMMME)

### About the School

The School of Minerals, Metallurgical and Materials Engineering at IIT Bhubaneswar, established in 2012, is a unique initiative where minerals, metals and materials have come into a collaborative existence with a mission to be locally relevant and globally competitive in the area of Minerals, Metallurgical and Materials Engineering. Presently the School offers programs as follows:

- » B. Tech. in Metallurgical and Materials Engineering,
- » B. Tech.-M. Tech. Dual degree in Metallurgical and Materials Engineering,
- » M. Tech. in Metallurgical and Materials Engineering and
- » Ph.D. Programme

Located in the state of Odisha, one of the most mineral rich states of India, the school is aware that the maximum economic benefit from a mineral could be achieved when economically transformed to its final product leading to ultimate benefit.

### Research

The school's thrust areas are: Transport and Structural Materials, Energy Materials and Devices, Strategic and Functional materials, various manufacturing processes (including Additive Manufacturing). The focus of school activities is therefore multi-directional with an emphasis on both teaching and research. In this regards, the school has drawn a road-map to progress via partnership with the Institute of Minerals and Materials Technology (CSIR-IMMT) at Bhubaneswar and student and faculty exchange with Warwick Manufacturing Group (WMG) at Warwick University, UK and Shanghai Jiao Tong University, China. The School has also received a generous endowment of 30 million INR from MGM Group to establish a permanent Chair Professorship.

### **Statistics**

- » No of faculty: 11
- » HPC computer clusters: 2
- » No. of major equipment: 55
- Number of Sponsored projects (on going): 16 Number of consultancy projects: 05 (to be confirmed from R&D section)
- » Number of patents granted (till date): 05
- » Number of Publications: 34
- » Number of patents pending: 02
- » No. of symposiums organized: 01
- » No. of QIP programmes conducted: 01

### State of the art Facilities

The School continuously strives to create and upgrade its advanced experimental and computational facilities. The School has procured a Field Emission Scanning Electron Microscope with EDX and EBSD facility which is under the Central Instrumentation Facility. Others include the FDM 3D printer, Arc melting with Suction Casting, Vacuum Hot press for consolidation and sintering, microscopy facilities like Inverted and upright Optical microscopes with image analysis facility, Melting and heat treatment facilities, Metallography facility for sample preparation, Glove box for preparation of samples under controlled atmosphere, Universal Hardness Testing Machine, Impression Creep, Micro-stensile tester, Electrochemical workstation and High Performance Computer Clusters together with multiscale and multi-physics simulation software.

### Laboratories

The School has been developing a number of laboratories to cater to undergraduate and postgraduate teaching and well as various research activities of the School and the Institute. Currently, it houses the following laboratories:

- » Thermodynamics Laboratory
- » Material Testing Laboratory
- » Mechanical Testing Laboratory
- » Modelling and Simulation Laboratory
- » Optical Microscopy Laboratory
- » Physical Metallurgy Laboratory + Metallographic Laboratory
- » Powder Metallurgy Laboratory
- » Materials Characterization Laboratory I&II
- » Process Control and Instrumentation Laboratory
- » Material Processing Lab
- » Wielding Laboratory

The faculty members are engaged in sponsored projects from Science and Engineering Research Board - Department of Science and Technology, Council of Scientific and Industrial Research, UGC-DAE Consortium of Scientific Research -Kalpakkam, Planning Coordination Department - Government of Odisha, Uchchatar Aviskar Yojana – MOE, National Aluminum Company, Naval Research Board and Ministry of Mines, Govt. of India. The school is actively providing technical consultancy services to industries such as Jindal Stainless Steel, Tata Sponge Iron Limited and Pradeep Phosphates Ltd. SMMME has organized a QIP SHORT TERM COURSE on Advances in Energy and Functional Materials, conducted from June 14-26, 2021 at SMMME, IIT Bhubaneswar. This QIP course was conducted in virtual mode and there are 20 participants attended this course from various academic institutes. This short term course

was sponsored by the All India Council for the Technical Education (AICTE). This Short term course inaugurated by Prof P. V. Satyam, HoS, SMMME, IIT BBs in the presence of school faculty and participants. SMMME. Over the two week QIP short term course of this online mode, there were several presentations delivered by renowned academicians from various IITs, IISc and scientists working in the area of Energy and Functional Materials.

Dr. Srikant Gollapudi delivered an invited lecture in workshop on corrosion & its control and characterization. Dr. Sivaiah Bathula has delivered an invited talk at international e– conference on advances in nanotechnology (ANT- 2021) 24<sup>th</sup>– 25<sup>th</sup> September–2021, Topic: Nanostructured thermoelectric Materials.

### Notable Contributions (Scientific and Society related)

- » Dr. Srikant's group has published 3 articles in peer reviewed journals. One of the articles demonstrates the importance of sample geometry in determining the correct fatigue life of Nitinol, the other article presents a thermodynamic model to evaluate the ability of an amorphous alloy to crystallize into a high entropy alloy.
- » The school faculty (Dr. Srikant and his team) has organized a Freedom run and walk, Organized a blood donation camp, organized International Day of Yoga.

### **Projects by Institute Faculty**

- » The School of Minerals, Metallurgical and Materials Engineering secured a DST-FIST grant for 1.15 crore INR during March 2021 for setting up a X-Ray Diffractometer facility
- » A research proposal on the topic "Band and nanostructural engineering of doped Mg2Si composite for optimized thermoelectric and mechanical properties" with Dr. Sivaiah Bathula as PI was awarded a research grant worth 14.5 lakh INR by SERB-DST during December 2021.
- » A research proposal on the topic "Enhancing the formability of Mg alloys by microstructural engineering using CPFEM approach" with Dr. Ramakrushna Sabat as Pl was awarded a consultancy project for a budget of Rs 28.16 lakhs INR during SERB-DST during December 2021.
- » A research proposal on the topic "Creep and fatigue of selective laser melted Ti-6242 alloy" with Dr. Srikant Gollapudi as PI was awarded a research grant worth Rs. 71.3 lakh INR during February 2022 by ARDB, DRDO, Ministry of defence, India
- » Consultancy project entitled "Testing of SS310 Steel" was awarded to Dr. Srikant Gollapudi as Pl.



ARC Melting with Suction Unit



Creep Testing Machine



DC Poling Unit



Glove Box



Hot Mounting Press



Impendance Analyzei

## **Centres of Excellence**

### Virtual and Augmented Reality Centre of Excellence (VARCoE)

Virtual Reality and Augmented Reality (VR and AR) have massive innovation potential across a wide range of industries and research fields. This research and innovation is currently across a range of industries including – product and skill development, health and medical science, art and architecture, transport, construction, tourism, entertainment, education, and productivity software. For achieving goals of such great magnitude Government of Odisha, STPI, Philanthropists like Shri Subroto Bagchi and Ms. Susmita Bagchi and IIT Bhubaneswar have come together to start this CoE.

### **Objective:**

The center is intended to span a wide spectrum of disciplines with particular emphasis on interaction technologies including virtual, augmented and mixed reality as well as mobile computing, epigenetic and evolutionary robotics, and haptic communication. The center will engage in research, teaching and services for developing advanced methods and algorithms for near-real 3D user interfaces and exploratory data analysis in virtual environments. Emphasis will also be laid on applicationdriven, interdisciplinary research in collaboration with all the reputed institutions worldwide, and partners from industry, covering fields like defense, simulation science, production technology, product development, neuroscience, architecture, and medicine.

Our CoE highlights the growth & development of Augmented and Virtual Reality solutions for achieving the digital transformation. This CoE aimed at partnerships among industry, academia, R&D Labs and innovators. The following are the major objectives of IIT Bhubaneswar CoE.

- » Give impetus to research, technology development, product development, technology incubation and entrepreneurship in Virtual & Augmented Reality and allied fields.
- » Develop a state-of-the-art research, development and testing facility/laboratories for advanced algorithms, applications and methods in aid of Virtual and Augmented Reality for Immersive Visualization and allied areas.
- » Develop application platforms for specific skill development programs based on the industry needs and relevance.

- » Produce new generation of entrepreneurs and incubators, who are ready to reap the benefits of the incubation and start-up facilities.
- » To create a core group of researchers in the area of AR/ VR.
- Applications of AR VR in education including virtual labs (could be primary, secondary, collegiate and higher education)
- » Application of AR VR in skilling and skilling system development.
- » Application of AR VR in Biomedicine/Bio engineering & health care applications.
- » Immersive visualization.
- » To create startup grants for select startups registered at Startup Center
- » IIT Bhubaneswar, STPI Bhubaneswar and Startup Odisha and a few for the most innovative projects from PAN India
- » Joining Associations like Global Virtual Reality Association, subsequently creating a Chapter at Bhubaneswar.

### Open Challenge Program on Virtual and Augmented Reality (OCPARVR-2022), [h April -10<sup>th</sup> April 2021)

IIT Bhubaneswar in association with Software Technology Parks of India (STPI), MeitY and Govt. of Odisha organized a three day long open challenge program and Workshop on Virtual and Augmented Reality in Hybrid mode. A total of 76 proposals were submitted for evaluation. After the first round of screening a total of 35 proposals were shortlisted for final presentation and evaluation during 13<sup>th</sup> to 15<sup>th</sup> March 2022. As well as during the OCPARVR and WORKSHOP besides the 35 proposals expert's talks were presented by domain experts on "Application of AR VR - Layers of Metaverse & its uses cases". A total of 07 proposals are recommended by the Selection committee for the startup supports.

### Center of Excellence for Novel Energy Materials (CENEMA)

The Center of Excellence for Novel Energy Materials (CENEMA) at IIT Bhubaneswar (IITBBS) was created with an objective to advance, explore and exploit the forefront of the science and engineering of energy materials. The major objective of this center is for developing and designing new and efficient materials that could be translated to products with industry collaboration while providing fundamental insight into the problem.

In addition to Ministry of Education funding for the centre we have obtained several industrial grants such as from NALCO, TATA Steel amounting more than Rs 5 crores. Some of the research topics include aluminium and graphene-based composites for battery to be used in mobile and electric vehicles, quantum materials for super capacitors, heat sink for electronic devices, high pure alumina for LED etc.

We continue to collaborate with the first start up from IIT Bhubaneswar, KARMA on renewable energy research to validate some of our developments. Through CENEMA, till now we have filed 2 Patents and several papers are published. Students, both under graduates and Ph D, as well postdoctoral associates are trained regularly within the centre.

### S K Dash Centre of Excellence of Biosciences and Engineering and Technology (SKBET)

S K Dash Centre of Excellence of Biosciences and Engineering and Technology (SKBET) was established in IIT Bhubaneswar in 2014 with a generous grant from Dr. Dash Foundation, USA to carry out research on probiotics and broader areas of biology, engineering, and technology. The centre has a world class laboratory with state-of-the-art instrumentation facility to carry our research on microbiology, cell biology, molecular biology, and bioinformatics. Every year we are adding new instruments in the laboratories of the center and take our research in probiotics, microbiome and its application in various diseases to the next level.

The center has a goal of developing probiotics nutraceuticals and pharmaceuticals that can be used to improve immunity, reduce ageing processes, and to treat various gastrointestinal disorders such as IBD, IBS, Gastrointestinal cancer etc. In the initial years of the establishment of SKBET, the center focused on its capacity building to carry out the cutting-edge probiotics research. Till 2021 summer we have guided 28 M. Sc. Interns to complete their dissertations in the center and make them skilled in probiotics research. From 2022 winter we are planning to take Ph. D. students in the center. The center has screened various potential probiotic strains for their probiotic properties and successfully identified nine novel probiotic strains that are at par with an established probiotic strain, LA DDS1 with respect to antimicrobial activity against eight multidrug resistant bacteria. Two of the newly identified probiotics strains secrete good amounts of antioxidants to the external media. Therefore, these two strains are being investigated for anticancer and antiinflammatory disorders and found to be effective in cultured mammalian cell system. All the nine probiotics strains are currently being tested in C57BL/6 and BALB/c mouse models and found to be safe. Further studies with these probiotics strains in mouse models for prevention/treatment of obesity, diabetes, and various inflammatory disorders are currently going on. Sixteen synbiotic products have been formulated and characterized in-vitro using the probiotics strains identified in the center. These sixteen products will be studied in cell culture, and mouse models followed by clinically trialed to reduce/treat the geriatric, inflammatory, and gastrointestinal disorders. In addition, nineteen articles have been published from the center as of summer 2022. The center is thriving and advancing to discover next generation probiotics strains and innovate new probiotics products which can be used as nutritional supplements as well as pharmaceutic intervention of various gastrointestinal and inflammatory disorders. The center is also working to innovate the synthetic microbial products to prevent/treat above said disorders as well as to improve the life expectancy of the human.



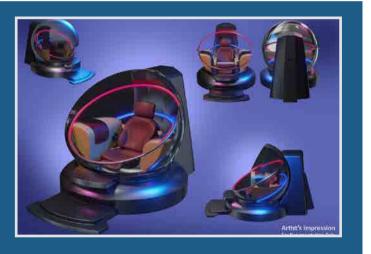
# Design Innovation Centre (DIC)

Design Innovation Centre (DIC) has been set up under National Initiative for Design Innovation (NIDI) scheme which is launched to work as a force multiplier that can help the country move up the value chain by making Indian industry globally competitive. It is an initiative under Ministry of Human Resource Development (MHRD) to encourage design-based approach focused on innovation and creativity. Under this scheme along with twenty Design Innovation Centers, one Open Design School (ODS) & a National Design Innovation Network (NDIN) also has been set up to maximize the reach of design education. The setting up of a Design Innovation centre (DIC) at IIT, Bhubaneswar under the National Initiative for Design Innovation (NIDI) scheme is a good opportunity for the introduction of design learning and innovation in eastern India. Design Innovation Center, IITBBS has involved itself in many progressive involvements since 2015 to till date in the field of creativity. It infuses a culture of innovative thinking in the budding engineers to undertake projects which lead to development of educational and community driven products primarily for children but of course, not limited to there.

Innovative Project/Ideation during 2021-22

### 1. Workosphere

It is a cozy & comfy workplace equipped with not only high-end work station, printer, Wi-Fi, adjustable 4K display, audio system but also a place to provide you maximum pleasure to unwind you from work stress. Along with all sorts of highend workstation amenities, it has facilities to dine in & taking break to prepare your favorite coffee, massage your back & feet without leaving your gyro-controlled seat. This "Glass Ball" atmosphere is beautifully constructed having RGB controlled light setup which will keep you isolated from the surrounding noise & 3D sound system that will blow your mind to ensure a hassle-free work.





### 2. Unmanned Armed Vehicle

This is designed with both automatic and manual mode so as to provide shield and cover to troops. The Al will assist its movement to rectify errors even at night with night vision capability and off terrain that is remotely operated. The vehicle designed with a robotic arm to perform delicate work and carry arms, ammunition, medical kit and any other heavy equipment.

### 3. Macro-level and micro-level path planning for autonomous vehicle

The project involves the development and testing of vehicle models in simulation and on the field. The objective is to develop, improve, and compare path finding algorithms which can plan the maneuver of vehicles for safe and reliable transit. The challenge of Parallel parking path planning was developed and deployed on a real vehicle SagacIITy. The vehicle was capable of finding parking space (using GPS and LiDARs), planning the path of maneuver (using a novel planner), generating steering commands, and following steering commands (using MPC controller).



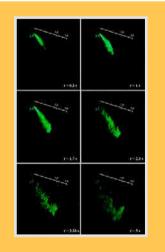


### Breathing, Virus Transmission and Social Distancing – An Experimental Visualization Study

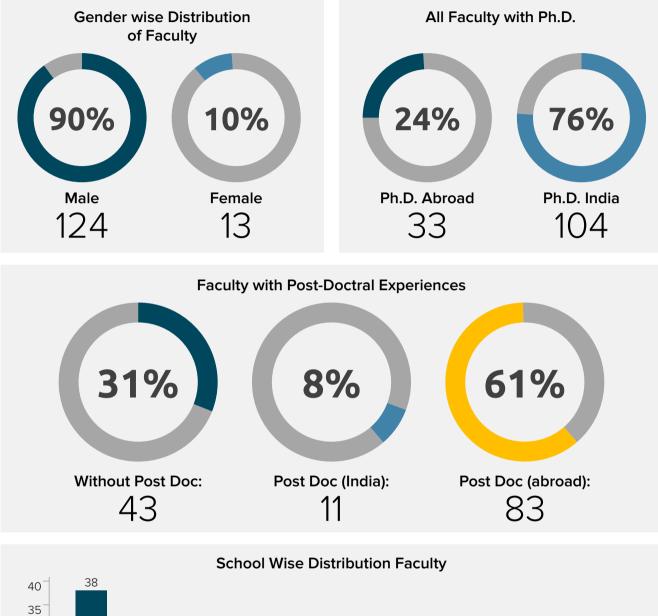
The project highlights the most commonly used protective measures like face masks and shields which are unable to prevent the escape of droplets generated during breathing. The leaked aerosol particle may contain the virus, which may trigger the airborne transmission of COVID-19 and other similar diseases. Under these circumstances, the conventional CO2 level measurement in confined space for assessing Air Quality Index may not be sufficient to regulate the airflow. New guidelines need to be formulated for deciding air circulation rate in confined space considering the leakage of the aerosol particle from protective measures.

### 5. Double Masking Protection Vs Comfort– A Qualitative Assessment

Double masking protection provides an additional layer of protection and masks fitment to minimize the leakage of droplets expelled during coughing, sneezing, talking, and breathing. This leakage may cause airborne transmission of the virus. In the project, we report a systematic quantitative unsteady pressure measurement supplement with flow visualization to quantify the effectiveness of a single and double mask. These results are useful for assessing the physiologic and psychologic adverse health effects associated with long-term mask usage.



### **Our Faculty**





S. N.	Name/Designation/ Email	Ph.D./Year	Specialization/Research Area	
Scho	ol of Basic Sciences			
1.	<b>Prof. P. V. Satyam</b> Professor satyam@iitbbs.ac.in	Institute of Physics/ Utkal University, Bhubaneswar, Odisha, 1997	Surface and interfaces, electron microscopy, experimental condensed matter physics, energy Materials.	
2.	<b>Prof. Saroj Kumar Nayak</b> Professor nayaks@iitbbs.ac.in	Jawaharlal Nehru University, 1995	First Principles Molecular dynamics Simulations, Nanostructures, Quantum transport, Quantum Biology	
3.	<b>Prof. Sujit Roy</b> Professor sroy@iitbbs.ac.in	IIT Kanpur,1987	Organometallic Chemistry, Homogeneous Catalysis	
4.	<b>Prof. T. V. S. Sekhar</b> Professor sekhartvs@iitbbs.ac.in	IIT Madras, 1995	Numerical Methods; Computational Fluid Dynamics	
5.	<b>Prof. V. R. Pedireddi</b> Professor vr.pedireddi@iitbbs.ac.in	University of Hyderabad, 1993	Solid State Chemistry; Supramolecular Chemistry; Self-Assembly of Biological, Organic and Organic inorganic Ensembles	
6.	<b>Dr. Abhijit Datta Banik</b> Assistant Professor adattabanik@iitbbs.ac.in	IIT Kharagpur, 2007	Queueing Theory, Applied Probability Models, Stochasti Modelling and Simulation, Stochastic Models in Operation Research and their application in Communication systems Transportation, Manufacturing, Production and Inventor Systems.	
7.	<b>Dr. Abhijit Sutradhar</b> Visiting Faculty abhijits@iitbbs.ac.in	IIT Kharagpur, 2017		
8.	<b>Dr. Abhishek Chowdhury</b> Assistant Professor achowdhury@iitbbs.ac.in	Harish Chandra Research Institute (DAE), Allahabad, 2016	String Theory; Black Holes; QFT; Moonshine	
9.	<b>Dr. Akhilesh Kumar Singh</b> Assistant Professor aksingh@iitbbs.ac.in	IIT Kanpur, 2007	Fluorogenic and Chromogenic Chemosensors; Magnetic Materials and MRI Contrast Agents; Synthesis and Characterization of Task Specific Ionic Liquids and Their Application	
10.	<b>Dr. Akshay Kumar Ojha</b> Associate Professor akojha@iitbbs.ac.in	Utkal University, 1997	Soft computing; Optimization Theory(Geometric programming and Fractional Programming; Data Mining and Portfolio Optimization	
11.	<b>Dr. Anasuya Roychowdhury</b> Assistant Professor aroychowdhury@iitbbs.ac.in	University of Texas Medical branch, 2009	Chemo mechanistic physiology and regulation of class of enzyme ATPase; Role of ATPase in Cancer Biology; Role of ATPase in Biological Clock	
12.	<b>Dr. Aneesh M.</b> Assistant Professor aneesh@iitbbs.ac.in	IIT Kanpur, 2016	Operator theory; Operator dynamics; Functional analysis	
13.	<b>Dr. Ashis Biswas</b> Associate Professor abiswas@iitbbs.ac.in	Bose Institute, 2006	Elucidation of structure-function relationships in small heat shock proteins and its importance in human diseases (leprosy and tuberculosis) using biochemical and biophysical techniques.; Investigating the effect of various post-translational modifications on the eye lens crystalline proteins and their role in developing cataract formation in human lens using biophysical methods.; Elucidating the mechanism behind the interaction of metal complexes (anti-cancer agents) with DNA and proteins using various biochemical techniques.	

S. N.	Name/Designation/ Email	Ph.D./Year	Specialization/Research Area
14.	Dr. Avijit Kumar	University of	Two-Dimensional Materials; Metal Organic Frameworks (MOFs);
	Visiting Faculty	Twente, the	Molecular Assembly; Molecular Electronics; Scanning Tunneling
	avijitkumar@iitbbs.ac.in	Netherlands, 2013	Microscopy (STM); non-contact Atomic Force Microscopy (nc- AFM). Worked Up To 30.06.2021
15.	Dr. Bankim Chandra Mandal	University	Numerical Analysis, Scientific Computing, Partial Differential
	Assistant Professor	of Geneva,	Equations, Domain Decomposition Methods
	bmandal@iitbbs.ac.in	Switzerland, 2014	
16.	Dr. Chandrasekhar Bhamidipati	Institute of Physics,	Heat Engines, Thermodynamics and Statistical Mechanics;
	Associate Professor	2006	Black Holes; String Theory
	chandrasekhar@iitbbs.ac.in		
17.	Dr. Hemant Kumar	Indian Institute	Computational condensed matter; Electronic and magnetic
	Assistant Professor	of Science, Bangalore, 2014	properties of 2D materials; Functional materials; Energy storage; Chromatin folding and DNA transcription
10	hemant@iitbbs.ac.in		· · · · · · · · · · · · · · · · · · ·
18.	Dr. Indrajit Jana	Univ. of California,	Probability Theory, Random Matrix Theory
	Assistant Professor	Davis, 2017	
19.	ijana@iitbbs.ac.in <b>Dr. Kari Vijayakrishna</b>	IIT Madras, 2006	Synthesis of task-specific ILs and polymerizable IL monomers;
19.	Associate Professor	III IVIAUIAS, 2000	Synthesis of Chiral Polymers and their applications in chiral
	kvijayakrishna@iitbbs.ac.in		induction; Synthesis of Achiral and Chiral Resins and their
	Kvijayakiisiina@iitbbs.ac.in		applications in synthesis; PIL stabilized metal nanoparticles and
			their applications; Polyelectrolyte-DNA interaction studies; PILs
			for gas separation membranes; Synthesis of MIPs and resins
			for nuclear waste treatment; Synthesis of (RAFT derived) ionic,
			pH, temperature and solvent responsive homo- and block
20	Dr. Kousik Somerte		copolymers towards their self-assembling for drug delivery
20.	Dr. Kousik Samanta Assistant Professor	Texas A&M University, College	Quantum Chemistry; Scattering theory; Mixed quantum- classical dynamics
	kousik@iitbbs.ac.in	Station, USA, 2009	
21.	Dr. Malay Kumar Bandyopadhyay		Open Quantum System; Non-equilibrium Statistical Mechanics;
2	Assistant Professor	University, Calcutta,	Nanomagnetism
	malay@iitbbs.ac.in	2008	5
22.	Dr. Niharika Mohapatra	IIT Bombay, 2006	Multiferroics; Thermoelectrics; Topological phases of matter
	Assistant Professor	-	
	niharika@iitbbs.ac.in		
23.	Dr. Nirmalendu Acharyya	IISc. Bangalore,	Mathematical physics; Open quantum systems; Biosensing
	Assistant Professor	2015	
	nirmalendu@iitbbs.ac.in		
24.	Dr. Pramod Padmanabhan	Syracuse	Physics on Noncommutative Spacetimes
	Assistant Professor	University, 2012	
05	ppadmana@iitbbs.ac.in		
25.	Dr. Rajan Jha	IIT Delhi, 2007	Optical Devices; Plasmonics; Fiber Optic
	Associate Professor		
26	rjha@iitbbs.ac.in Dr. Sabyasachi Pani	IIT Kharagaur	Variational Inequalities and Complementarity Decklames Arabid
26.	Dr. Sabyasachi Pani	IIT Kharagpur, 2004	Variational Inequalities and Complementarity Problems; Applied Functional Analysis; Optimization Techniques
	Associate Professor	2004	r uncuonai Anaiysis, Optimization rechniques
27.	spani@iitbbs.ac.in Dr. Sasmita Barik	IIT Guwahati, 2007	Combinatorial Matrix Theory; Graph Theory;
∠1.	Associate Professor	in Guwanad, 2007	Compinational matrix meory, Graph meory,
	sasmita@iitbbs.ac.in		
28.	Dr. Satchidananda Rath	Institute of Physics	Semiconductor nanosheets, Dilute magnetic semiconductor,
20.	Assistant Professor	Bhubaneswar,	Metal clusters, graphene, Optical properties, fast transitions,
	srath@iitbbs.ac.in	2006	Raman scattering, Small angle x-ray scattering, Rheology; Solar
			cell, Light Emitting Diodes

S. N.	Name/Designation/ Email	Ph.D./Year	Specialization/Research Area
29.	Dr. Seema Bahinipati	University of	Experimental High Energy Physics [B Physics, CP Violation,
	Assistant Professor	Cincinnati, Ohio,	Beyond Standard Model Physics]
	seema.bahinipati@iitbbs.ac.in	U.S.A., 2008	
30.	Dr. Shantanu Pal	IIT Bombay, 2006	Development of novel methodology and total synthesis of
	Associate Professor		biologically active natural products; Development of chemically
	spal@iitbbs.ac.in		modified small molecules as therapeutic agent; Synthesis o
			modified nucleic acid as anticancer or antiviral drug.
31.	Dr. Shyamal Chatterjee	The University	Experimental atomic, molecular and surface physics;
	Associate Professor	of Heidelberg,	Nanomaterials; Biomolecules, clusters
	shyamal@iitbbs.ac.in	Germany, 2007	
32.	Dr. Snehasis Chowdhuri	IIT Kanpur, 2005	Theoretical Chemistry; Statistical Mechanics; Molecular
	Associate Professor		Dynamics Simulation
	snehasis@iitbbs.ac.in		
33.	Dr. Soumendra Rana	IIT Bombay, 2007	G-protein Coupled Receptor Biology; Molecular Modelling and
	Assistant Professor		Computational Biology; Design, Synthesis and Characterization
	soumendra@iitbbs.ac.in		of Peptides
34.	Dr. Srikanta Patra	IIT Bombay, 2005	Metal Mediated Organic Transformations (Catalysis); Metal
	Assistant Professor		Based Anticancer Drugs; Functional Materials, Luminescent
	srikanta@iitbbs.ac.in		Materials, Sensors
35.	Dr. Sunil Kumar Prajapati	IIT Delhi, 2013	Algebra
	Assistant Professor		
~~~	skprajapati@iitbbs.ac.in		
36.	Dr. Tabrez Khan	University Of	Synthetic Method Development; Natural products and natural
	Assistant Professor	Mumbai, 2009	product inspired bioactive molecule synthesis
~7	tabrez@iitbbs.ac.in		
37.	Dr. Tarakanta Nayak	IIT Guwahati, 2007	
	Associate Professor		independence fractals of graphs
20	tnayak@iitbbs.ac.in		Constant Analysis, Constanting Theory, University
38.	Dr. Vasudeva Rao Allu	IIT Madras, 2010	Complex Analysis; Geometric Function Theory; Harmonic Mappings in the Plane.
	Associate Professor		
Scho	avrao@iitbbs.ac.in ol of Earth, Ocean and Climate S	sionsos	
<b>3</b> 9.	Prof. Hrusikesh Mishra		Cool Coology/Detrology Cool Proparation, Cool Patrology and
39.	Visiting Professor	University of	Coal Geology/Petrology, Coal Preparation, Coal Petrology and its application in Coal & Hydrocarbon exploration Worked Up
	•	Wollongong,New	To 30.06.2021
	hrusikesh@iitbbs.ac.in	South Wales,	10 30.00.2021
40	Prof Rambhatla G. Sastry	Australia, 1987 Moscow State	Geophysics/ Satellite gravity, Geotechnical geophysics
40.	Prof. Rambhatla G. Sastry Visiting Professor	University, Russia,	(Engineering Geophysics), Exploration Geophysics
	rgsastry@iitbbs.ac.in	1980	Linging ocophysics, Exploration ocophysics
41.	Prof. Uma Charan Mohanty	Odessa Hydro	Tropical Meteorology, Numerical Weather Prediction, Monsoon
	Visiting Professor	Meteorological	Dynamics, Regional Climate Studies and Meso-scale Modelling
	ucmohanty@iitbbs.ac.in	Institute, USSR,	
	acmonanty@nbbb.dc.In	1978	
42.	Dr. Debadatta Swain	University of Pune,	Satellite & Physical Oceanography; Ocean-Atmosphere
	Assistant Professor	2009	Interactions & Modelling; Atmospheric Dynamics
	dswain@iitbbs.ac.in	2000	······································
43.	Dr. Kiranmayi Landu	IISc Bangalore,	Climate Dynamics; Tropical Meteorology; Extreme Weather
	Assistant Professor	2008	events
	kiranmayi@iitbbs.ac.in		
44.	Dr. Raj Kumar Singh	IIT Kharagpur,	Paleoclimatology and Paleoceanography; Marine
	Assistant Professor	2009	Micropaleontology; Hydrogeology
	rksingh@iitbbs.ac.in		

S. N.	Name/Designation/ Email	Ph.D./Year	Specialization/Research Area
45.	Dr. Sandeep Pattnaik	Andhra University,	Tropical Meteorology; Monsoon, Cloud Physics; Extreme Events
	Assistant Professor	2006	(e.g. Tropical cyclone, Heavy Rainfall, Lightning)
	spt@iitbbs.ac.in		
46.	Dr. Sourav Sil	IIT Kharagpur, 2012	
	Assistant Professor		Dynamics
	souravsil@iitbbs.ac.in		
47.	Dr. Syed Hilal Farooq	IIT Bombay, 2010	Hydrogeochemistry; Geothermal Energy; Organic Geochemistry
	Assistant Professor		
40	hilalfarooq@iitbbs.ac.in		
48.	Dr. Vinoj. V	IISc Bangalore,	Aerosol Cloud Climate Interactions; Satellite Remote Sensing,
	Assistant Professor	2009	Radiative Forcing, Field Measurements; Monsoon and Climate
40	vinoj@iitbbs.ac.in	IIT Dambay 2011	Change, Climate Modelling
49.	Dr. Yengkhom Kesojit Singh	IIT Bombay, 2011	Structural geology and tectonics; geochronology;
	Assistant Professor		photogrammetry; GIS and remote sensing; Natural hazard and
C . I	yksingh@iitbbs.ac.in		disaster management; Augmented reality and virtual reality.
	ol of Electrical Sciences	National Llaiversity	Denouvable France Quaternal Device System Antimization and
50.	Prof. N. C. Sahoo Professor	National University of Singapore, 2001	Renewable Energy Systems; Power System Optimization and Control; Control of Electric Drives
	ncsahoo@iitbbs.ac.in	of Singapore, 2001	Control, Control of Electric Drives
51.	Prof. R. V. Raja Kumar	IIT Kharagpur, 1987	Wireless communications systems; Wireless networking
51.	Professor, Director	in Khalagpul, 1967	protocols; Channel equalization and baseband processing;
	director@iitbbs.ac.in		Detection methods and systems; Tracking algorithms; Adaptive
	director@itbb3.de.in		filtering algorithms and their performance analysis; Estimation of
			time-varying signals and systems; Spectral Estimation methods;
			Audio and video coding; VLSI based processors for wireless
			communication systems; Voice and multimedia over IP
52.	Dr. Anoop Thomas	IISc. Bangalore,	Coding techniques; Algebraic Error Correcting Codes; Index
	Assistant Professor	2018	Coding; Network Coding; Coded caching; Coded Distributed
<b>F</b> 0	anoopthomas@iitbbs.ac.in	V/: · · T   00/4	Computing
53.	Dr. Barathram Ramkumar	Virginia Tech, 2011	Signal Processing; Wireless Communication; Bio-Signal
	Associate Professor		Processing
54.	barathram@iitbbs.ac.in Dr. Chandrasekhar Perumalla	IIT Delhi, 2014	Integration and Control of Renewable Energy Systems; Design
54.	Assistant Professor	III Dellil, 2014	and Development of Smart Controllers for Microgrid/Smart
	pcsekhar@iitbbs.ac.in		Grid Systems; Control of Active Distribution Systems; Energy
	peseknar@itbbs.ac.in		Management in Hybrid AC/DC Microgrid Systems; Application
			of Power Electronics to Power Systems; Application of Soft
			Computing to Power Quality Problems
55.	Dr. Chandrashekhar Narayan	IIT Delhi, 2008	Renewable Energy, Distributed Generation; Power Quality,
	Bhende		Custom Power Devices; Application of soft computing
	Associate Professor		techniques to power systems
	cnb@iitbbs.ac.in		
56.	Dr. Debalina Ghosh	Syracuse	Remote Sensing; Electromagnetic Engineering and Antennas;
	Assistant Professor	University,	Radar Systems
	deghosh@iitbbs.ac.in	Syracuse, NY, USA, 2007	
57.	Dr. Debapratim Ghosh	IIT Bombay, 2017	Microwave components, circuits, and systems, microwave
	Assistant Professor		measurement systems, analog and small-scale embedded
	debapratim@iitbbs.ac.in		systems
58.	Dr. Debi Prosad Dogra	IIT Kharagpur, 2012	
	Assistant Professor		Interface; Augmented Reality
	dpdogra@iitbbs.ac.in		

S. N.	Name/Designation/ Email	Ph.D./Year	Specialization/Research Area
59.	Dr. Dipankar De	IISc Bangalore,	Switched Mode Power Converter and Design of Integrated
	Assistant Professor	2011	Magnetics; Application of Power Electronics in Power Systems;
	dipankar@iitbbs.ac.in		Wide band-gap Device-based Power Conversion
60.	Dr. Joy Chandra Mukherjee	IIT Kharagpur, 2015	Distributed Algorithms, Time-varying Network Algorithms,
	Assistant Professor		Intelligent Transportation Systems, Smart Grid
	joy@iitbbs.ac.in		
61.	Dr. M. Sabarimalai Manikandan	IIT Guwahati, 2009	Signal and Image Processing; Biometric and Multimodal
	Assistant Professor		Interfaces; VLSI and Embedded System (ON LIEN)
	msm@iitbbs.ac.in		
62.	Dr. Manoranjan Satpathy	IIT Bombay, 1997	Software Testing and verification; Advanced Computer
	Associate Professor		Architecture; Programming Languages
	manoranjan@iitbbs.ac.in		
63.	Dr. Nijwm Wary	IIT Kharagpur, 2018	Analog CMOS VLSI circuit design; circuit design for the high-
	Assistant Professor		speed serial link; SERDES; on-chip and off-chip interconnects;
	nijwmwary@iitbbs.ac.in		full-duplex and coded differential signaling
64.	Dr. Niladri Bihari Puhan	Nanyang	Image Processing; Biometrics; Biomedical Imaging
	Assistant Professor	Technological	
	nbpuhan@iitbbs.ac.in	University,	
		Singapore, 2007	
65.	Dr. Olive Ray	IIT Kanpur, 2016	Renewable power integration; Converter modeling and control;
	Assistant Professor		Digital control of Power Electronics
	olive@iitbbs.ac.in		
66.	Dr. Padmalochan Bera	IIT Kharagpur, 2011	Networks and System Security; Cryptography; Software
	Assistant Professor		Defined Networks
	plb@iitbbs.ac.in		
67.	Dr. Prasant Kumar Sahu	IIT Kharagpur,	Optical Communication; Remote Sensing; Speech and Signal
	Associate Professor	2008	Processing
	pks@iitbbs.ac.in		
68.	Dr. Pravas Ranjan Sahu	IIT Kanpur, 2006	Digital Communications, Mobile Communications, Receiver
	Associate Professor		performance in fading channels.
	prs@iitbbs.ac.in		
69.	Dr. Sankarsan Mohapatro	IISc Bangalore,	High Voltage Engineering; Industrial Application of High Voltage
	Associate Professor	2011	for Pollution Control; Renewable Energy Systems
	sankarsan@iitbbs.ac.in		
70.	Dr. Siddhartha S. Borkotoky	Clemson University,	Wireless Communications; IoT; Application-Layer Coding;
	Assistant Professor	South Carolina,	Adaptive Transmission Protocols
	borkotoky@iitbbs.ac.in	2017	
71.	Dr. Soumya Prakash Dash	IIT Delhi, 2019	Communication theory; Powerline communication; Smart grid
	Assistant Professor		communications; Diversity combining; Soft and evolutionary
	spdash@iitbbs.ac.in		computing
72.	Dr. Srinivas Bhaskar Karanki	IIT Madras, 2012	Power Quality; DC Converters for Renewable energy sources;
	Assistant Professor		Power Electronics Applications to Power Systems
	skaranki@iitbbs.ac.in		
73.	Dr. Srinivas Boppu	University	Programmable Hardware Accelerators
	Assistant Professor	of Erlangen	
	srinivas@iitbbs.ac.in	Nuremberg, 2015	
74.	Dr. Srinivas Pinisetty	INRIA Rennes,	Formal methods, runtime monitoring
	Assistant Professor	University of	
	spinisetty@iitbbs.ac.in	Rennes1, France	
75.	Dr. Subhajyoti Mukherjee	Missouri University	Power Converter Modeling and Control, Wide Band-gap
	Assistant Professor	of Science and	Devices based Power Converters, Soft switching Techniques,
	sjm@iitbbs.ac.in	Technology, Rolla,	Multiport Converters, Transportation Electrification, Grid
		MO, USA, 2017	Connected Systems, and Application of Power Electronics for
			Renewable Sources of Energy. Left on24.11.2021

S. N.	Name/Designation/ Email	Ph.D./Year	Specialization/Research Area	
76.	Dr. Subhransu Ranjan Samantaray Associate Professor srs@iitbbs.ac.in	NIT Rourkela, 2007	Power System protection; Smart-Grid; PMU and WAMs	
77.	Dr. Sudipta Saha Assistant Professor sudipta@iitbbs.ac.in	IIT Kharagpur,2015	Wireless Sensor Network; Cyber-Physical Systems; Internet-of- Things	
78.	Dr. Vijaya Sankara Rao Pasupureddi Associate Professor vijay@iitbbs.ac.in	IIT Kharagpur, 2011	Analog, RF and Mixed-Signal VLSI Integrated Circuits an Systems; IC Design for Wireless and Wireline Communications New Radio System Architectures for Next-Generation Wireles Standards; RF/Wireless System-on-Chip(SoC);	
Scho	ol of Humanities, Social Sciences a	and Management		
79.	<b>Prof. Godabarisha Mishra</b> Visiting Professor gmishra@iitbbs.ac.in	Madras University, 1986	Sanskrit and Indian Philosophy Left on 31.12.2021	
80.	Dr. Amrita Satapathy Assistant Professor asatapathy@iitbbs.ac.in	Utkal University, 2009	Commonwealth Studies, Indian Diaspora Literature, Travel Writings/ Autobiographies/ Memoirs	
81.	<b>Dr. Anamitra Basu</b> Assistant Professor anamitrabasu@iitbbs.ac.in	IIT Kharagpur, 2010	Laterality; Psycholinguistics; clinical Psychology	
82.	Dr. Dukhabandhu Sahoo Assistant Professor dsahoo@iitbbs.ac.in	Institute for Social and Economic Change, Bangalore, 2007	Open Macroeconomics; Development Economics; Environment and Natural Resource Economics	
83.	<b>Dr. Madhusmita Dash</b> Assistant Professor madhusmita@iitbbs.ac.in	IIT Kharagpur, 2016	Economics of Natural Resource Management; New Institutiona Economics; Environmental Economics; Rural Developmen Renewable Energy; Trans-boundary Water Conflict	
84.	<b>Dr. Naresh Chandra Sahu</b> Assistant Professor naresh@iitbbs.ac.in	IIT Kanpur, 2008	Environmental Economics; Finance; Mining and Rural Development	
85.	<b>Dr. Punyashree Panda</b> Assistant Professor ppanda@iitbbs.ac.in	Berhampur University, 2008	Postcolonial World Literature, Indigenous Writings; Indian Writing in English; ELT, Cross-cultural Communication	
86.	<b>Dr. Rajakumar Guduru</b> Assistant Professor rajakumarguduru@iitbbs.ac.in	English and Foreign Languages University, Hyderabad, 2011	Developing Critical Vocabulary of ESL Learners; Cognitive Reading Skills; Second Language Acquisition; Teacher Education and Development; Communication Skills; Technology and Language Learning	
Scho	ol of Infrastructure			
87.	<b>Prof. Rabindra Kumar Panda</b> Professor rkpanda@iitbbs.ac.in	Indian Agricultural Research Institute, New Delhi, 1984	Hydrology; Watershed Management; Non-point Source Pollution of Water Resources Worked Up To 30.06.2021	
88.	Dr. Anush Konayakanahalli Chandrappa Assistant Professor akc@iitbbs.ac.in	IIT Kharagpur, 2018	3 Transportation and Pavement Engineering	
89.	<b>Dr. Arindam Sarkar</b> Assistant Professor asarkar@iitbbs.ac.in	IIT Kharagpur, 2006	Flow through submerged and emergent vegetation; Scour around hydraulic structures; Mathematical flow modelling	
90.	<b>Dr. B. Hanumantha Rao</b> Assistant Professor bhrao@iitbbs.ac.in	IIT Bombay, 2009	Geotechnical Engineering; Environmental Geotechnics;	

S. N.	Name/Designation/ Email	Ph.D./Year	Specialization/Research Area	
91.	<b>Dr. Debasis Basu</b> Assistant Professor dbasu@iitbbs.ac.in	IIT Kharagpur, 2008	Sustainable Transportation, Operation of Public Transport; Transportation Economics; Traffic Studies	
92.	<b>Dr. Devesh Punera</b> Assistant Professor devesh@iitbbs.ac.in	IIT Bombay, 2018	Structural Mechanics; Composite structures; Continuum theories of beams, plates and shell structures; Smart materials; Bio-mechanics.	
93.	<b>Dr. Dinakar Pasla</b> Associate Professor pdinakar@iitbbs.ac.in	IIT Madras, 2005	Concrete Technology	
94.	Dr. Goutam Mondal Assistant Professor gmondal@iitbbs.ac.in	IIT Kanpur, 2011	Earthquake Engineering and Structural Dynamics; Seismic Analysis of Bridges; Soil-Structure Interaction	
95.	<b>Dr. Jothi Saravanan Thiyagarajan</b> Visiting Faculty at the level of Assistant Professor tjs@iitbbs.ac.in	The University of Tokyo, Japan, 2018	Structural Health Monitoring; Railway Track profile Estimation	
96.	<b>Dr. Manaswini Behera</b> Assistant Professor manaswini@iitbbs.ac.in	IIT Kharagpur, 2012	Water and wastewater treatment and reuse; Bioenergy recovery during wastewater treatment in microbial fuel cell; Solid waste management	
97.	Dr. Mayank Mishra Visiting Faculty at the level of Assistant Professor mayank@iitbbs.ac.in	University of Basilicata, Italy, 2017	Non-destructive testing of historical constructions; Machine Learning; Structural health monitoring; Optimization WORKED UP TO 30.06.2021	
98.	Dr. Meenu Ramadas Assistant Professor meenu@iitbbs.ac.in	Purdue University, USA, 2015	Hydrology; Water Resources; Drought Modelling	
99.	<b>Dr. Mohammad Masiur Rahaman</b> Assistant Professor masiurr@iitbbs.ac.in	IISc. Bangalore, 2018	Solid Mechanics, Fracture Mechanics, Peridynamics; Visco- plasticity and damage	
100.	Dr. Partha Pratim Dey Assistant Professor ppdey@iitbbs.ac.in	IIT Roorkee, 2006	Traffic Flow Modelling	
101.	<b>Dr. Pushpendu Bhunia</b> Associate Professor pbhunia@iitbbs.ac.in	IIT Kharagpur, 2008	Nutrients removal and recovery from wastewater; Vermi- filtration of domestic and industrial wastes; Recovery of energy and biogas generation from biodegradable wastes	
102.	<b>Dr. Rajesh Roshan Dash</b> Associate Professor rrdash@iitbbs.ac.in	IIT Roorkee, 2008	Environmental Engineering; Treatment of Water and Wastewater; Solid Waste Management	
103.	Dr. Remya Neelancherry Assistant Professor remya@iitbbs.ac.in	National Chiao Tung University Taiwan, 2010	Microwave photocatalytic treatment of complex wastewater; Catalytic copyrolysis of mixed solid waste; Solar photocatalytic treatment and preparation of supported catalyst	
104.	Dr. Shantanu Patra Assistant Professor shantanupatra@iitbbs.ac.in	IIT Delhi, 2013	Geotechnical engineering, geosynthetics and their application	
105.	<b>Dr. Sumanta Haldar</b> Associate Professor sumanta@iitbbs.ac.in	IISc Bangalore, 2008	Offshore wind energy foundation; Soil-structure interaction; Dynamics of soil and foundation	
106.	<b>Dr. Suresh R Dash</b> Assistant Professor srdash@iitbbs.ac.in	University of Oxford, 2011	Structural Dynamics and Earthquake engineering; Soil-Structure Interaction; Seismic Analysis and Design of Pipelines	

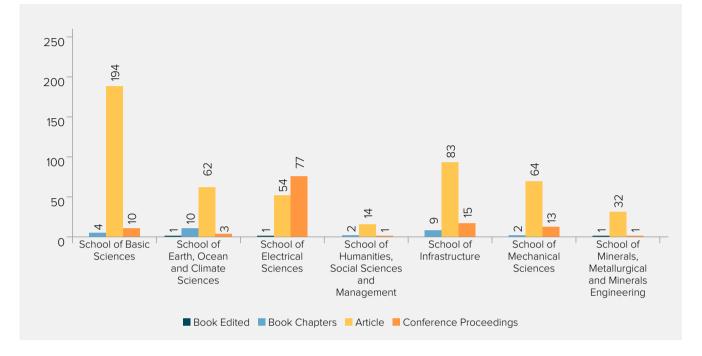
S. N.	Name/Designation/ Email	Ph.D./Year	Specialization/Research Area	
107.	Dr. Umesh Chandra Sahoo Assistant Professor	IIT Kharagpur, 2009	Pavement Analysis and Design; Pavement Materials; Low Volume Roads	
Saha	ucsahoo@iitbbs.ac.in ol of Mechanical Sciences			
<b>SCHO</b> 108.	Prof. Swarup Kumar Mahapatra	Jadavpur	Conjugate Heat Transfer; Radiation Modelling; Bio Heat Transfer	
108.	Professor swarup@iitbbs.ac.in	University, 2000	Conjugate neat mansier, Radiation Modelling, Dio neat mansier	
109.	<b>Dr. Anirban Bhattacharya</b> Assistant Professor anirban@iitbbs.ac.in	IISc Bangalore, 2014	Multi-phase and multiscale transport phenomena; Phase change and grain structure modelling; Boiling heat transfer modelling	
110.	<b>Dr. Arun Kumar Pradhan</b> Associate Professor akpradhan@iitbbs.ac.in	IIT Kharagpur, 2008	Solid Mechanics, Composite Materials & Structures, Fracture Mechanics & Delamination studies in Composites; Smart Materials & Structures; Natural Fibre Reinforced Composites	
111.	<b>Dr. Chetan</b> Assistant Professor chetan@iitbbs.ac.in	IIT Delhi, 2018	Sustainable Machining; Micro-Machining; Surface Engineering; Tribology in Manufacturing	
112.	<b>Dr. Gaurav Bartarya</b> Assistant Professor bartarya@iitbbs.ac.in	IIT Kanpur, 2014	Conventional and nonconventional Machining Processes	
113.	Dr. K. Srinivasa Ramanujam Assistant Professor sramanujam@iitbbs.ac.in	IIT Madras, 2012	Active Passive Remote Sensing; Engineering Design and Optimization; Atmospheric Radiation	
114.	<b>Dr. Manas Mohan Mahapatra</b> Associate Professor mmmahapatra@iitbbs.ac.in	IIT Kharagpur, 2008	Welding Residual Stress & Distortion control, Friction Stir Welding Tool Design, Friction Stir Processing and Friction Cladding; Thermal Spray and Laser Coating for Wear and High Temperature Applications; In-situ Metal Matrix Composites and their Manufacturability	
115.	<b>Dr. Mihir Kumar Das</b> Associate Professor mihirdas@iitbbs.ac.in	IIT Roorkee, 2006	Two Phase Heat Transfer; PCM based Cooling System; Internal Combustion Engines	
116.	<b>Dr. Mihir Kumar Pandit</b> Associate Professor mihir@iitbbs.ac.in	IIT Kharagpur, 2009	Design and Solid Mechanics; Sandwich Structures; Composite Materials	
117.	<b>Dr. Pattabhi Ramaiah Budarapu</b> Assistant Professor pattabhi@iitbbs.ac.in	Bauhaus University of Welmar, Germany, 2015	Multiscale methods for fracture; molecular dynamics; fracture in multiphysics problems; structural dynamics	
118.	<b>Dr. Prasenjit Rath</b> Assistant Professor prath@iitbbs.ac.in	Nanyang Technological University, Singapore, 2007	Transport Phenomena in Materials Processing; Ultrafa Transport; CFD/HT	
119.	<b>Dr. Sasidhar Kondaraju</b> Assistant Professor sasidhar@iitbbs.ac.in	Wayne State University, 2009	Microfluidics; Micro/Nanoscale Thermofluids; Multiphase Flows	
120.	<b>Dr. Satish Dhandole</b> Assistant Professor satish@iitbbs.ac.in	IIT Delhi, 2009	Dynamic Design; Vibro-acoustic; Mechanisms	
121.	<b>Dr. Satyanarayan Panigrahi</b> Associate Professor psatyan@iitbbs.ac.in	lISc Bangalore, 2007	Underwater acoustic absorbers; Acoustics of mufflers and ducts; Acoustic metamaterials	

S. N.	Name/Designation/ Email	Ph.D./Year	Specialization/Research Area	
122.	Dr. Soham Roychowdhury Assistant Professor soham@iitbbs.ac.in	IIT Kharagpur, 2019	Computational Solid Mechanics; Mechanics of Inflatabl Structures; Nonlinear Elasticity	
123.	<b>Dr. Suvradip Mullick</b> Assistant Professor suvradip@iitbbs.ac.in	IIT Kharagpur, 2016	Laser material processing, Non-conventional machining	
124.	<b>Dr. V. Pandu Ranga</b> Associate Professor pandu@iitbbs.ac.in	IIT Kharagpur, 2009	Robotics; Manufacturing; Soft Computing	
125.	Dr. Venugopal Arumuru Assistant Professor venugopal@iitbbs.ac.in	IIT Bombay, 2014	Fluid Structure Interaction and unsteady Aero-Hydrodynamics Heat Transfer augmentation; Acoustics	
126.	Dr. Yogesh G. Bhumkar Assistant Professor bhumkar@iitbbs.ac.in	IIT Kanpur, 2012	High performance computing; Computational aero acoustics; Transitional and turbulent flows	
Scho	ol of Minerals, Metallurgical and I	Materials Engineering		
127.	Dr. Amritendu Roy Assistant Professor amritendu@iitbbs.ac.in	IIT Kanpur, 2012	Ferroelectric and multiferroic materials for memory and energy applications; Multi component alloy design; Electronic structure calculations	
128.	Dr. Animesh Mandal Associate Professor animesh@iitbbs.ac.in	IIT Kharagpur, 2007	7 Aluminium alloys; Metal matrix composites; Semisol processing of metallic systems	
129.	<b>Dr. Brahma Deo</b> MGM Chair Professor bdeo@iitbbs.ac.in	University of Burdwan, 1975	Iron and steel making; Dynamic process control and optimization; Chaos control in dynamical systems	
130.	<b>Dr. Kaushik Das</b> Assistant Professor kaushik@iitbbs.ac.in	McGill University, 2012	Mechanical Behaviour of Nanomaterials; Integration of Nanomaterials to Microelectromechanical Systems (MEMS) LEFT ON 17.05.2021	
131.	<b>Dr. Kisor Kumar Sahu</b> Assistant Professor kisorsahu@iitbbs.ac.in	Kyoto University, 2006	Modelling and simulation of materials; Energy materials and systems; Structural and magnetic frustration of materials	
132.	<b>Dr. Kodanda Ram Mangipudi</b> Assistant Professor kodanda@iitbbs.ac.in	University of Groningen, 2012	Computational Mechanics Mechanical behavior of (nano) composite materials Mechanics of cellular solids	
133.	<b>Dr. Partha Sarathi De</b> Assistant Professor parthasarathi.de@iitbbs.ac.in	Missouri University of Science & Technology, USA, 2010	Friction stir welding and processing; High entropy alloys; Thermo-mechanical processing of metals	
134.	Dr. Rama Krushna Sabat Assistant Professor rsabat@iitbbs.ac.in	lISc Bangalore, 2015	Evolution of microstructure and texture during severe plastic deformation of a Magnesium-Cerium alloy	
135.	<b>Dr. Sivaiah Bathula</b> Assistant Professor sivaiahb@iitbbs.ac.in	Delhi Technological University (DTU), Delhi, 2016	I Thermoelectric Materials; Advanced Materials Processing Techniques; Advanced Materials Characterization Techniques; Novel Materials Synthesis Methodologies.	
136.	Dr. Soobhankar Pati Assistant Professor spati@iitbbs.ac.in	Boston University, 2010	Electrochemistry ; Energy Materials; Sustainable Materials and Process	
137.	Dr. Srikant Gollapudi Assistant Professor srikant@iitbbs.ac.in	North Carolina State University, 2007	Creep behavior of titanium, zirconium, magnesium and aluminum alloys and solders Mechanical alloying of amorphous and nanocrystalline alloys	

### Adjunct Faculty 2021-2022

S. N.	Name	Parent Institute	Name of the School visited
1.	Brig. (Dr.) Laxmi Charan Patnaik	Chairman, Board of Studies, Indian Army	SHSS&M
2.	Col. Sriprakash Pany	Senior Consultant, OPSC, Govt. of Odisha	SHSS&M
3.	Dr. Aruna Mohanty	Odissi Dancer and Choreographer, Odisha Dance Academy	SHSS&M
4.	Dr. Ashwini Nanda	Founder and CEO, HPC Research Inc., USA	SES
5.	Dr. Avijit Kumar	IIT Bhubaneswar	SBS
6.	Dr. Ileana Citaristi	Odissi Dancer and Choreographer, Founder Secretary Art Vision Dance Academy	SHSS&M
7.	Dr. K. Ramesh Babu	Centre for Human Security Studies (CHSS)	SHSS&M
8.	Dr. Manoj Kumar Mondal	IIT Kharagpur	SHSS&M
9.	Dr. Sabarimalai Manikandan	IIT Palakkad	SES
10.	Dr. Sateesh Kumar Peddoju	Indian Institute of Technology Roorkee	SES
11.	Dr. Surendra Kumar Biswal	Tirupati Graphene and Mintech Research Centre (TGMRC), Bhubaneswar	SMMME
12.	Padmashree Kumkum Mohanty	Odisha Sangeet Maha Vidyalaya	SHSS&M
13.	Prof. Amit Sen	IIT Roorkee	SEOCS
14.	Prof. B. K. Panigrahi	Director, Materials Chemistry & Metal Fuel Cycle Group, Indira Gandhi Centre for Atomic Research	SMMME
15.	Prof. Bhaswati Patnaik	Department of Psychology, Utkal University	SHSS&M
16.	Prof. Brij Kumar Dhindaw	Indian Institute of Technology Kharagpur	SMMME
17.	Prof. Dipankar Dasgupta	University of Memphis	SES
18.	Prof. Gokul Chandra Pati	Former Chief Secretary, Govt. of Odisha	SHSS&M
19.	Prof. H. K. Mishra	IIT Bhubaneswar	SEOCS
20.	Prof. J. Robert Mahan	Virginia Polytechnic Institute and State University, Blacksburg, V.A	SMS
21.	Prof. Jatindra Kumar Nayak	Centre of Excellence in Language, Literature & Culture, Utkal University	SHSS&M
22.	Prof. N. V. Chalapathi Rao	Institute of Science, BHU	SEOCS
23.	Prof. P. K. J. Mohapatra	Indian Institute of Technology Bhubaneswar	SES
24.	Prof. Pratap Kumar Rath	Centre of Advanced Study in Psychology	SHSS&M
25.	Prof. Prativa Manjari Rath	Department of Sanskrit, Utkal University	SHSS&M
26.	Prof. R. K. Panda	IIT Bhubaneswar	SIF
27.	Prof. Ravikant Vadlamani	Department of Geology and Geophysics, IIT Kharagpur	SEOCS
28.	Prof. Sadasiba Pradhan	Utkal University, Bhubaneswar	SHSS&M
29.	Prof. Sailen Routray	Consultant, Wipro Foundation, Bangalore	SHSS&M
30.	Prof. Sarat Chandra Panigrahi	Indian Institute of Technology Kharagpur	SMMME
31.	Prof. Subrat Kar	lIT Delhi	SES
32.	Prof. Surya Narayan Misra	Former Vice-Chairman, IIPA (Odisha)	SHSS&M
33.	Prof. Uma Kanta Mishra	School of History, G M University, Sambalpur, Cuttack	SHSS&M
34.	Prof. Vasudeva R. Yerikalapudy	Indian Institute of Technology Bhubaneswar	SBS

# PUBLICATIONS



### **Book Edited**

#### School of Earth, Ocean and Climate Sciences

 Singh, R.K. et al. (2021). Dynamics of the Pacific Antarctic Circumpolar Current. Volume 383: Dynamics of the Pacific Antarctic Circumpolar Current (DYNAPACC) (Expedition 383 Scientists, Ed.; Vol. 383). International Ocean Discovery Program. https://doi.org/10.14379/iodp.proc.383.2021

### **Book Chapters**

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- Singh, R.K. [et. al.] (2021). Site U1541.Volume 383: Dynamics of the Pacific Antarctic Circumpolar Current (DYNAPACC) (Expedition 383 Scientists, Ed.; Vol. 383). International Ocean Discovery Program. https://doi.org/10.14379/iodp. proc.383.2021
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#### School of Basic Science

 Aaryashree, Sahoo, S., Walke, P., Nayak, S. K., Rout, C. S., & Late, D. J. (2021). Recent developments in self-powered smart chemical sensors for wearable electronics. Nano Research, 14(11), 3669–3689. https://doi.org/10.1007/ s12274-021-3330-8

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# School of Minerals, Metallurgical and Materials Engineering

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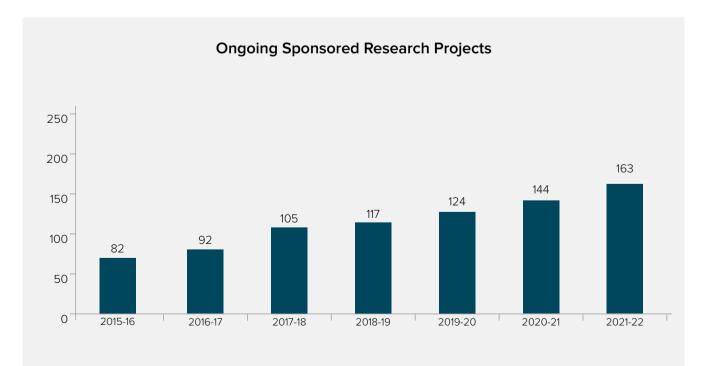
# Research, Development and Collaborations

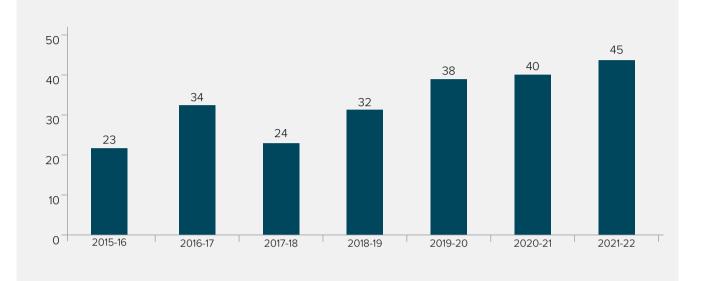
The Research and Development activities are increasing with time. The total value of projects received by the Institute so far (2008-22) is around ₹163.06 crores through 314 sponsored research and 335 consultancy projects. The breakup values of research and consultancy projects are ₹139.60 crores and ₹23.46 crores respectively. During the current year (2021-22), projects worth ₹21.86 crores have been received which includes ₹18.02 crores worth of sponsored research projects and ₹3.84 crores worth of consultancy projects. The major funding agencies are DST MOE CSIR UGC ISRO DRDO ICSSR DAE CPRI DAC DBT Deity NALCO NPOL IUSSTF INCOIS MoES MoWR IITM NCAOR BRNS KPIT P&C Dept.-Govt. of Odisha etc. In addition to the above, a total number of 67 project proposals worth ₹47.8 crores submitted recently are in pipeline.

The major areas covered by these projects are Advance Materials Energy Nanotech Hardware Health Care Defence CS & ICT Environmental Sciences & Climate Change Water Resources & River Science Manufacturing and Sustainable Urban Design. Our faculty members participated in major initiatives of MOE like IMPRINT Uchhatar Avishkar Yojana (UAY) Swachta Action Plan FIST and Unnat Bharat Abhiyan (UBA) etc. The Institute is also actively participating in the national R&D missions namely: "IMPacting Research Innovation and Technology (IMPRINT)". A total of five projects under IMPRINT worth ₹2.43 crores are now ongoing.

# **Sponsored Research Projects for 2021-22**

No. of ongoing sponsored projects for the year 2021-22 = 163 No. of new sponsored projects for the year 2021-22 = 45





## New Sponsored Projects

S. N.	Title of the Project	Name of the Funding Agency	Name of the Faculty (Principal Investigator)
Schoo	ol of Basic Sciences		
1.	Design and study of Nano and micro displacement sensor based on Photonic Crystal Fiber modal interferometer	ISRO	Dr. Rajan Jha
2.	Materials and related storage devices for grid-deprived communities	DST	Prof. Saroj Kumar Nayak
3.	Spectra of multidigraphs and their applications to complex networks	DST	Dr. Sasmita Barik
4.	Impact of lysine acetylation in Hsp16.3 on its structure chaperone function and the growth survival as well as pathogenesis of Mycobacterium tuberculosis	DST	Dr. Ashish Biswas
5.	lon induced modification of nanostructured materials and tuning of surface wetting property	DST	Dr. Shyamal Chatterjee
6.	Development of dppz based mononuclear complexes of iridium and gold as potential luminescent probe and anticancer agent	CSIR	Dr. Srikanta Patra
7.	Independence polynomials of graphs and associated fractals	DST	Dr. Tarakanta Nayak
8.	Development of Cost Effective process and known for production of Al-Mg alloys of enhanced mechanical properties incorporating graphene/grapheme oxide suitable for automobile application	NALCO	Prof. Saroj Kumar Nayak
9.	Development of heterodimetallic complexes and their theranostic and catalytic aspects	DST-IMPRINT II	Dr. Srikanta Patra
10.	A Novel fluorescence-based assay for rapid detection and quantification of Exosomes	DST	Dr. Srikanta Patra
11.	Development of Aluminium-based Materials for Energy Storage Application-Super capacitor	NALCO-IMMT	Prof. Saroj Kumar Nayak
12.	High Pure Nano-Alumina for Solar Cell Anti-Reflection Coatings and Reinforcing Aluminium	NALCO	Prof. Saroj Nayak
13.	Taylor column phenomena of axially translating sphere in a rotating fluid - a numerical study	DST	Prof. T V S Sekhar

S. N.	Title of the Project	Name of the Funding Agency	Name of the Faculty (Principal Investigator)
14.	Design and development of metal-oxide hetero-structures for enhancement of photovoltaic energy conversion efficiency		Dr.Niharika Mohapatra
15.	Space-time domain decomposition methods for non-linear cahn- hilliard equation and their implementations in parallel computers	DST	Dr. Bankim Chandra Mandal
16.	Design Preparation and Evaluation of S (Sulphur) and P (Phosphorous) Mediated Functional Solids in the Form of Co- crystals Metal-Organic Frameworks (MOFs) Structures and Covalent Organic Frameworks (COFs)	DST	Prof. V. R. Pedireddi
17.	Blending traditional and newer synthetic methods for regio-/ stereoselective synthesis of functionalized carbo-/heterocycles: Application towards the asymmetric total synthesis of some complex bioactive terpenoid-alkaloids	DST	Dr. Tabrez Khan
18.	Quasi-permutation representations and Gel'fand pair?	DST-MATRICS	Dr. Sunil Kumar Prajapati
19.	A study of harmonic analogue of certain univalent and analytic functions	DST-MATRICS	Dr. Basudeva Rao Allu
20.	Functional consequences of cancer testis antigen ATAD2 in pancreatic cancer	DBT	Dr. Anasuya Roychowdhury
21.	Spectrum of random band matrices	DST INSPIERD	Dr. Indrajit Jana
22.	Synthesis of Homo Di and Tri (ABA type) Block Co-polymers of Less Activated Monomers by Reversible Deactivation Radical Polymerization	DST	Dr. Vijayakrishna Kari
23.	Metal Complexes of Macrocyclic/ Acyclic Ligands as T1 and ParaCEST-based Contract Agent for MRI	DST	Dr. Akhilesh Kumar Singh
24.	Multiscale (QM/MM) modeling approach to understand the bacterial resistance towards beta-lactam based antibiotics	DST	Dr. Kousik Samanta
25.	Photovoltaic assisted water harvesting from moisture using biometric surface	DST	Dr Shyamal Chatterjee
26.	National Post-Doctoral Fellowship to Dr. Surjit Sahoo	DST	Prof. Saroj Kumar Nayak
27.	Growth of semiconductor heterostructure nanolayers for solar cell application	SERB	Dr Satchidananda Rath
28.	Controlling Heat Float at Nanoscale: A Versatile Approach to Generate Sustainable Energy From Waste Heat	SERB	Dr.Malay Kumar Bandyopadhyay
29.	C-H C-O Activation and C1-Platform Chemicals: Synthetic and Mechanistic Studies on Two-metal Synergy	SERB	Prof. Sujit Roy
30.	Topological Phases Based on Metail-Organic Framework	SERB-DST	Dr. Avijit Kumar
31.	Contact Geometry Framework for Thermodynamics Statistical Mechanics and Dissipative Dynamics?	SERB-DST	Dr. Chandrasekhar Bhamidipati
32.	Interaction of vortex beam with quantum emitters coupled to photonic nanowire	SERB-DST	Dr. Rajan Jha
33.	Consultancy work on "Development of Specialty Fiber Modal Interferometer as a Thermometer for Harsh Environment	IGCAR	Dr. Rajan Jha
34.	An enquiry into the problems in Geometric Function Theory	SERB-DST	Dr. Vasudeva Rao Allu
35.	Identification synthesis and validation of potential ATAD2 ligands as a therapeutic strategy for stomach cancer	ICMR	Dr. Anasuya Roychowdhury
36.	Indigenous development of controlled interferometry based high- temperature industrial flow measurement device	DST	Dr. Rajan Jha
37.	Prototype Development Fabrication and validation of Al-Graphene Composite Battery with Cooling Plates	NALCO	Prof. Saroj Kumar Nayak
38.	Development of Synthetic Strategies to Diverse N-Heterocyclic Fused ISOXAZOLES: Evaluation of Biological Activities And Photophysical Studies	CSIR-HRDG	Dr. Shantanu Pal

S. N.	Title of the Project	Name of the Funding Agency	Name of the Faculty (Principal Investigator)
39.	FIST Program: Discipline of Physics SBS IIT Bhubaneswar	DST	Prof. P. V. Satyam
40.	Development of process for 4N High Pressure pure alumina (HPA) and substrate making for its validation in LED applications	JNARDDC C/o NALCO	Dr. Hemant Kumar
41.	Design and synthesis of cocrystals/satls of anticancer drugs to improve physicochemical and pharmacokinetic properties: crystal engineering approach		Prof. V. R. Pedireddi
42.	Hypercyclic and chaotic behavior of adjoint multiplication operators on Banach spaces of analytic functions	SERB	Dr. Aneesh M.
43.	Rational Design Flexible Energy Storage Devices Using Multiscale Simulations and Machine Learning	SERB	Dr. Hemant Kumar
44.	Development of computational method for finding the exact result on the queueing model involving heavy-tail distributions using complex analysis	SERB	Dr. Abhijit Datta Banik
45.	Geometric optimization of finite time quantum thermodynamic processes under different control protocols	SERB	Dr. Malay Kumar Bandyopadhyay
46.	DST-Storage MAP: Automation and AI/ML- Assisted development of solid state battery technology	DST	Dr. Hemant Kumar
47.	Novel Al Nano-structure based electrodes for battery and supercapacitor devices	DST	Prof. Saroj Kumar Nayak
48.	X-ray and Ion-Scattering methods for Material Characterization	SERB	Prof. P.V. Satyam
Schoo	l of Earth Ocean and Climate Sciences		
49.	Detection of Lightning Phenomena and Associated Processes and its now-casting	ISRO	Dr. Debadatta Swain
50.	Impact of changing aerosol loading and urbanization on surface temperature and rainfall over select cities over India	DST	Dr. Vinoj V.
51.	Development of long-term high resolution Land Use Land Cover (LULC) data for Bhubaneswar peri-urban & rural areas and future projection	DST-SPLICE	Dr. Debadatta Swain
52.	Evaluation and development of hyperlocal forecasting system for smart city Bhubaneswar and neighbourhood regions	DST	Dr. Sandeep Pattnaik
53.	Urban Modelling: Development of multi-sectorial simulation lab and science based decision support framework to address urban environment issues		Prof. U. C. Mohanty
54.	The inter-relationship between atmospheric aerosol distribution and tropical intraseasonal oscillations over the Indian region	DST	Dr. Vinoj V.
55.	Subsurface variability of the Bay of Bengal from observations and models: relationship with Indian Monsoon and Cyclogenesis	DST	Dr. Sourav Sil
56.	Middle Pleistocene to Holocene dynamics of Antarctic Circumpolar Current and its implications to global climate: Evidence from Southern Pacific	SERB	Dr. Raj Kumar Singh
57.	National Post Doctoral Fellowship (N-PDF) (Life Sciences) to Dr. Amit Kumar Mishra	SERB-DST	Dr. Syed Hilal Farooq
58.	Effect of climate change on convectively coupled equatorial waves and MJO and their influence on extreme rainfall events over Indian region		Dr. Kiranmayi Landu
59.	Pliocene dynamics of the southern Pacific and its linkages with the low latitude climate	National Centre for Polar and Ocean Research	Dr. Raj Kumar Singh
60.	Investigation of coastal and off-shelf processes in the eastern coast of India	National Institute of Ocean Technology	Dr. Debadatta Swain

S. N.	Title of the Project	Name of the Funding Agency	Name of the Faculty (Principal Investigator)
61.	Utilization of ITR Doppler Weather Radar Products in high- resolution mesoscale model for prediction of severe weather over Chandipur- Phase II	ITR Chandipur	Prof. U. C. Mohanty
Schoo	ol of Electrical Sciences		
62.	Special Manpower Development Program for Chips to System Design (SMDP-C2SD)	DeitY	Dr. M. Sabarimalai Manikandan
63.	Visvesvaraya Ph scheme for Electronics and IT	DeitY	Dr. M. Sabarimalai Manikandan
64.	Design and Development of Affordable and Movable Solar Photovoltaic (SPV) Water Pumping System	DAFP	Dr. Srinivas Bhaskar Karanki & Dr. M. S. Manikandan
65.	UK India Clean Energy research institute (UKICERI)	DST	Dr. Srinivas Bhaskar Karanki
66.	Si/SiC Hybrid Semiconductor based solid state transformer for PV application	DST	Dr. Dipankar De
67.	UI-ASSIST: US-India collaborative for smart distribution system with storage	Indo-US Science & Technology Forum	Dr. S. R. Samantaray
68.	FIST Programme	DST	Dr. P. K. Sahu
69.	Light weight Reconfigurable Cognitive Radio Platform for M2M and IoT applications	DST-IMPRINT II	Dr. Barathram Ramkumar
70.	Prototype of Imaging Radar in UWB	DST-IMPRINT II	Dr. Srinivas Boppu
71.	Smart Grid Security Control Using Nature - Inspired Decentralised Cooperative Metaheuristic Strategies	DST - TARE	Prof. N. C. Sahoo
72.	Design and Development of tools for detection and prevention of cyber-attacks in Smart Grid Energy Management Systems (EMS)	CPRI	Dr. P. L. Bera
73.	Development of hybrid smart grid communication network for last mile connectivity: A D2D and PLC approach	DST	Dr. Soumya praksh Dash
74.	Grid Interconnection Protocols for Largely Dispersed Minigrids/ Microgrids for Electrification of Rural India (MultiGrid)	DST	Dr. Chandrasekhar Perumalla
75.	Quadratic boost converter based multi-input power converter interface for renewable applications	DST	Dr. Olive Ray
76.	Design and Development of Dynamic Phasor and Frequency Estimator Complying IEEE C37.118 standard under Teachers Associateship for Research Excellence (TARE)	DST - TARE	Dr. S. R. Samantaray
77.	Add on Radar for Jamming UAVs	Ministry of Defence	Dr. Deblina Ghosh
78.	Development of Formal Verification Tools for Proactive Assessment and Prevention of Security Threats in Enterprise Networks	DRDO	Dr. P. L. Bera
79.	National Post-Doctoral Fellowship to Dr. Haimabati Das	DST	Dr. N. B. Puhan
80.	Efficient cache aided data delivery using deep reinforcement learning	DST	Dr. Anoop Thomas
81.	Achieving reliable communications in the Internet of things: an erasure-correction coding approach	DST	Dr. S. S. Borkotoky
82.	Design Of Dynamic MAC and PHY SoC for Low Power and Long Range networks	MeitY	Dr Vijaya Sankara Rao Pasupureddi
83.	High-speed and energy efficient CMOS transceiver design for full- duplex chip-to-chip serial link	SERB-DST	Dr. Nijwm Wary
84.	Design and Implementation of Artificial Intelligence Powered Internet-of-things (IoT) Climate-Aware Health Monitoring and Disease Prediction System for Sustainable Health and Wellness Management	Medical Research	Dr. M. Sabarimalai Manikandan

S. N.	Title of the Project	Name of the Funding Agency	Name of the Faculty (Principal Investigator)
85.	Development of Internet of Things Enabled Phasor and Power Quality Monitoring Devices for Smart Power Grids		Dr. Subhransu Ranjan Samantaray
86.	Bone health classification using machine learning	SERB-DST	Dr. Debalina Ghosh
87.	Design and Development of Deep Learning based App for Early Warning of Blindness	SERB-DST	Dr. N B Puhan
88.	Design and Development of a Software Defined Radar for Road Safety Applications	Odisha Motor Vehicle Department Govt. of Odisha	Dr. P K Sahu
89.	Designing of computer vision guided intelligent traffic systems for smart cities	SERB-DST	Dr. Debi Prosad Dogra
90.	Design and Development of Cost-Effective Floating-Solar Energy Generation Technologies and Infrastructure for Achieving Nearly Zero-Energy Villages	DST	Dr. Srinivas Bhaskar Karanki
91.	Speech to Speech Translation for Tribal Languages using Deep Learning Framework	Ministry of Electronics and Information Technology through IIT Dharwad	Dr. M. Sabarimalai Manikandan
92.	Renewal Energy EMPOWERing European and InDian communities (RE-EMPOWERED)	DST	Dr. Srinivas Bhaskar Karanki
93.	Design Development and Demonstration of Solar-PV On-board and Off-Board Electric Rickshaw Charging Infrastructure	DST	Dr. Olive Ray
94.	EU Erasmus DIVERSASIA project – Embracing diversity in ASIA through the adoption of inclusive open practices	Nottingham Trent University	Dr. M. Sabarimalai Manikandan
95.	DHR-GIA Proposal: Development of an Affordable Wearable IoT- GPS Enabled Intelligent Vital Signs Monitor for Smart Health Monitoring Services	ICMR	Dr. M. Sabarimalai Manikandan
96.	Development of Coordinated Protection and Control Scheme for Microgrid	SERB-DST	Dr. S R Samantaray
97.	Development of cost-effective energy management strategies for a green hydrogen based electric vehicle charging station	SERB-TARE	Dr. Chandrasekhar Narayan Bhende
98.	Design and Development of Doppler Radar System for Inbore Projectile Velocity Measurement	ARMREB-DRDO	Dr. Debalina Ghosh
99.	Development of adaptive motor controller for PMSM based three- wheeler Electric Vehicle	MeitY	Dr. Chandrashekhar N Bhende
100.	Design and Development of Grid Interactive Adaptive Controls for Frequency Regulation from Large Scale PV Systems	CPRI	Dr. Chandrasekhar Perumalla
101.	Single chip test set for portable 5G network analyzers	DST	Dr. Debapratim Ghosh
Schoo	of Infrastructure		
102.	Study of the effects of Climate Change on Hydro-meteorological processes: Droughts and Floods at Different Spatial and Temporal Scales in Eastern India	DST	Prof. R K Panda
103.	Measures for Improving the Attractiveness of Pedestrian Facility Accessing Urban Local Bus Stops	MHRD IMPRINT I	Dr. Debasis Basu
104.	Treatment for domestic wastewater using microphyte assisted vermifiltration system	MHRD share for Swachhta Action Plan (SAP)	Dr. R R Dash
105.	Impact Assessment of climate change on Hydro-meteorological processes and water resources of Mahanadi river basin	Ministry of water resources	Dr. Arindam Sarkar
106.	Urban Flood Modelling - A Web-based Decision Tool Integrating UAV Based Information	DST	Dr. Meenu Ramadas

S. N.	Title of the Project	Name of the Funding Agency	Name of the Faculty (Principal Investigator)
107.	Energy Efficiency in Agricultural pumping with smart groundwater management through monitoring and targeting aquifers		Prof. R K Panda
108.	Seismic Design of Pipelines	NDMA & BIS	Dr. S. R. Dash
109.	Life Cycle and performance assessment of cold mix roads	NRIDA	Dr. U. C. Sahoo
110.	Cost effective ICT-Data analytics system for efficient management of water and fertilizer in precision agriculture	DST-IMPRINT II	Dr. Meenu Ramadas
111.	Saraswati 2.0 - Identifying best available technologies for decentralized wastewater treatment and resource recovery for India	DST	Dr. Manaswini Behera
112.	Stochastic Material Degradation based Large Deformation Finite Element Analysis of FRP Composites in Hygrothermal Environment using Thickness Stretching Kinematic Model-Special Investigation of Tidal Turbine Blades	DST	Dr. Devesh Punera
113.	Developing a process for determining the polymer content in waste plastic modified bituminous mixes	NRIDA	Dr. U. C. Sahoo
114.	A thermodynamically consistent model for designing high- performance ceramic laminates with tailored residual stresses	SERB-DST	Dr. Mohammad Masiur Rahaman
115.	Evaluation of Bridge approach settlement mitigation schemes through field application	NRIDA	Dr. Suresh Ranjan Dash
116.	Performance evaluation of cement concrete pavements in rural roads	NRIDA	Dr. Anush Konayakanahalli Chandrappa
Schoo	l of Mechanical Sciences		
117.	National Initiative for Design Innovation	MHRD	Dr. S. N. Panigrahi
118.	Study of Wetting and De-Wetting Transition for Fog-Water Harvesting	DST INSPIRE Research Grant	Dr. Sasidhar Kondaraju
119.	FIST Program	DST	Dr. A. Satyanarayana
120.	Design and Development of Co-axial synthetic jet for electronics cooling	DST	Dr. Venugopal Arumuru
121.	Development of metal matrix nano-composites using selective laser melting process	DST	Dr. Anirban Bhattacharya
122.	Development of a three dimensional unsteady compressible flow solver (based on LES methodology) to optimize shape of a launch vehicle for reducing aerodynamic drag and flow induced acoustic noise at transonic Mach numbers	ISRO	Dr. Yogesh Bhumkar
123.	Development of continuous gradient Functionally Graded Materials (FGMs) by using gravity die casting under Teachers Associateship for Research Excellence (TARE)	DST - TARE	Dr. M. M. Mahapatra
124.	Design and Development of Hybrid "PCM-Synthetic Jet" based Heat Sink for Electronic Cooling	DST	Dr. Mihir Kumar Das
125.	Dynamic Analysis and Design of Dynamically Balanced Gait Controller for Lower Limb Exoskeleton	DST	Dr. Pandu Ranga Vundavalli
126.	Development of a sub-micrometer resolution electro hydrodynamic jet printer for printing customized polymeric structures	DST-IMPRINT II	Dr. Sasidhar Kondaraju
127.	Design and development of lightweight and crashworthy hierarchical materials and structures	DST	Dr. B. Pattabhi Ramaiah
128.	Prediction of impact dynamics of projectile and armour plate with accurate thermal modelling	DRDO	Prof. S. K. Mohapatra
129.	Thermal Characterization of gun barrel during dynamic firing	DRDO	Prof. S. K. Mohapatra

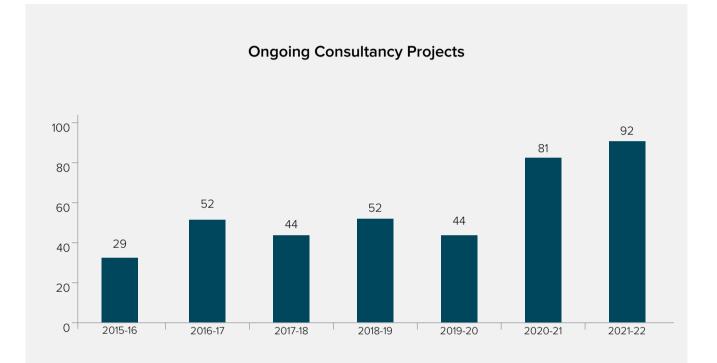
S. N.	Title of the Project	Name of the Funding Agency	Name of the Faculty (Principal Investigator)
130.	Development of heat transfer enhancement methods at boiling and evaporation on horizontal tube bundles for falling films and forced flow of liquids		Dr. Mihir Kumar Das
131.	Assimilation of Ground Radar Data with Weather Research and Forecast Model in Information Theoretic Framework	Ministry of Earth Sciences	Dr. Srinivasa Ramanujam Kannan
132.	Ultrasonic assisted laser additive manufacturing of nickel based super alloys and its online temperature monitoring to control the directionality in grain growth anisotropy in mechanical properties and elemental segregation; and enhancement of the component life by laser shock peening.	SERB-DST	Dr. Suvradip Mullick
133.	Development of in-reflection fiber based interferometer for residual stress measurement	DST	Dr. Manas Mohan Mahapatra
134.	Indigenous Development of a novel low-cost Solar PV panel self cleaning device	DST	Dr. Venugopal Arumuru
135.	Load distribution design and joint configurations for Load Grounding through Human Worn Exo-Frames	DIPAS-DRDO	Dr. Pandu Ranga Vundavalli
136.	Titanium alloy based fine featured Cranial implant development using Incremental Forming and ECM	SERB-DST	Dr. Gaurav Bartarya
137.	Investigation on the role of residual stresses on shape memory effect and superelasticity in shape memory alloy welds	SERB-DST	Dr. Manas Mohan Mahapatra
138.	Design and Development of a Screw type Wheeled Snake-like Robot to Access the inaccessible Areas inside the Boiler Tubes and other Enclosures	CPRI	Dr. Pandu Ranga Vundavalli
139.	Machine Learning Based Model for Optimization of PCM-Metal Foam Composite Energy Storage System	SERB	Dr. Anirban Bhattacharya
140.	Stability and contact problems of inflatable structures under DST INSPIRE Faculty Fellowship	DST	Dr. Soham Roychowdhury
141.	Analysis and Design of elastodynamic metamaterials for vibro- acoustic control	Naval Physical & Oceanographic Laboratory	Dr. S. N. Panigrahi
Schoo	ol of Minerals Metallurgical and Materials Engineering		
142.	Optimization Of Silos Bins And Hoppers Designs Through Modelling Primarily Intended For Iron Ore Storage	UAY of MHRD & NMDC	Dr. K. K. Sahu
143.	Improving damping capacity of cast Nickel Aluminium Bronze (NAB) Alloys	NRB	Dr. Partha Sarathi De
144.	Online corrosion monitoring in naval structures	NRB	Dr. Soobhankar Pati
145.	Development of stand-alone cost-effective conversion coatings for Magnesium alloys	UAY of MHRD	Dr. K. K. Sahu
146.	Stress corrosion cracking (SCC) evaluation of materials for naval applications: new insights from Double Cantilever Beam (DCB) technique	NRB	Dr. K. K. Sahu
147.	Low temperature electro refining process for production of high purity aluminium (4N and above)	NALCO	Dr. Soobhankar Pati
148.	Centre for H2 Solutions - Materials Energy Systems (H2 - M & ES)	DST-NFTDC	Dr. Soobhankar Pati
149.	Mechanical behaviour of additively manufactured hierarchical micro-architected metamaterials and composites for structural and functional applications	DST	Dr. Kodandaram Mangipudi
150.	Improved surface hardness of bus body panels: A simple route by shot peening	NALCO	Dr. Srikant Gollapudi

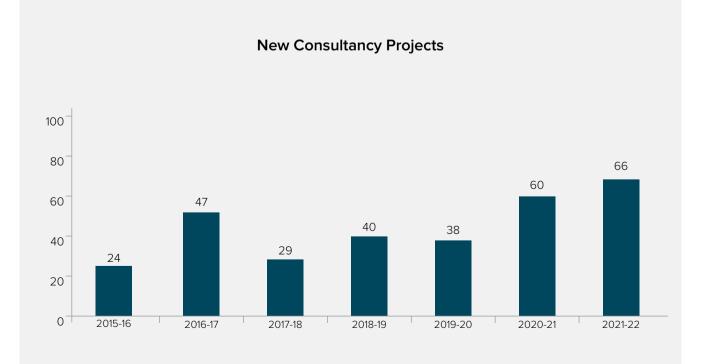
S. N.	Title of the Project	Name of the Funding Agency	Name of the Faculty (Principal Investigator)
151.	Design and characterization of an Al-Ti based high entropy alloys	DST	Dr. Partha Sarathi De
152.	Designing of novel transition metal oxide based ferroelectric perovskites for visible light photovoltaic application	DST	Dr. Amritendu Roy
153.	Fast Charging High Energy Density Lithium Ion Batteries with Nanoporous Silicon Anodes	SERB	Dr. Soobhankar Pati
154.	Computational alloy design and mechanical property study of complex concentrated alloys	Naval Materials Research Laboratory Ambernath	Dr. Kodanda Ram Mangipudi
155.	Employing metallurgical silicon to develop new class of silicon composites for structural applications	Ministry of Mines	Dr. Srikant Gollapudi
156.	Development of PIEZOELECTRIC Ceramic-Polymer flexible composite based energy harvester for smart automobiles	CSIR-HRDG	Dr. Amritendu Roy
157.	Evaluation of Coal Tar Derived Hard/Soft Carbon Anodes for Power Li-ion Batteries	Tata Steel Limited	Dr. Soobhankar Pati
158.	FIST Program: SMMME IIT Bhubaneswar	DST	Dr. Animesh Mandal
159.	Band and nanostructural engineering of doped Mg2Si composite for optimized thermoelectric and mechanical properties	SERB-DST	Dr. Sivaiah Bathula
160.	Enhancing the formability of Mg alloys by microstructural engineering using CPFEM approach	SERB-DST	Dr. Rama Krushna Sabat
161.	Creep and fatigue of selective laser melted Ti-6242 alloy	ARDB-DRDO	Dr. Srikant Gollapudi
162.	Experimental and theoretical investigations into the local structure and magnetic phases vis-a-vis transitions in multicomponent AlcuFeMn alloy using ab-initio density functional theory calculations high energy synchrotron and neutron diffractional techniques	UGC-DAE CSR	Dr. Amritendu Roy
163.	Effect of laser shock peening on the fatigue behavior of Nitinol shape memory alloy	DST	Dr. Srikanta Gollapudi



## **Consultancy/Development Projects for 2021-22**

No. of ongoing consultancy projects for the year 2021-22 = 92No. of new consultancy projects for the year 2021-22 = 66





130

S.N.	Title of the Project	Name of the Funding Agency	Name of the Faculty (Principal Investigator)
	School of Basic	Sciences	
1.	Design and formulation of coating using molecular modelling and simulation	M/s Tata Steel Ltd	Prof. Saroj Kumar Nayak
	School of Electric	al Sciences	
2.	Establishment of Chair Position at IIT Bhubaneswar by OPTCL	M/s Odisha Power Transmission Corporation Ltd	Dr. Subhransu Ranjan Samantaray
3.	Vetting of Electrical and E&I Designs and Drawings for Bramhagiri & Krushnaprasad block of Puri district of Odisha Project	Voltas Limited	Dr. Srinvas Bhaskar Karanki
4.	Vetting of Electrical and E&I Designs and Drawings for Rairakhol block of Sambalpur district of Odisha Project	Voltas Limited	Dr. Srinvas Bhaskar Karanki
5.	Technical vetting of CAPEX Plan of TPCODL	M/s GRIDCO Ltd	Dr. Subhransu Ranjan Samantaray
6.	Understanding Road Traffic and Pedestrian Anomalies	M/s Korean Institute of Science and Technology (KIST)	Dr. Debi Prosad Dogra
7.	Vetting of Electrical and E&M Designs and Drawings of Puri-Ganjam Project	M/s GVPR Engineers Limited	Dr. Srinvas Bhaskar Karanki
8.	Analog Design for Serial Communication	M/s Ceremorphic Inc.	Dr. Nijwm Wary
9.	Implementation of Advanced Machine Learning Algorithms for Cluster Expansion	M/s Indo Korea Science and Technology Center Bangalore	Dr. Debi Prosad Dogra
	School of Infra	structure	
10.	Proof checking of Design and drawing of Superstructure Substructure and bearing for the Proposed bridge crossing IOCL Pipelines in connection with proposed Multi-Model Logistic Park/Container Terminal at Paradeep (Odisha)		Dr. Goutam Mondal
11.	Engineering operations philosophy for long term mud management of pond B	M/S. Utkal Alumina International Ltd.	Dr. B. Hanumantha Rao
12.	Design vetting of the technical report for the proposed gabion wall reinforced by the anchor	M/s Gateway Office Parks Private Limited	Dr. B. Hanumantha Rao
13.	Vetting of Traffic Assessment Report for M/s Tirumala Infrastructure and Development (P) Ltd. residential building project at Subudhipur and Shankarpur for Environmental Clearance		Dr. Rajesh Roshan Dash
14.	Vetting of Traffic Assessment Report for M/s Shuvam Construction (P) Ltd. building project at Ghatikia for Environmental Clearance		Dr. Rajesh Roshan Dash
15.	Proof checking of Design and Drawings for a Two Lane bridge at Km 432/25-27 over Rly track between Mancheswar-Vanivihar	M/s Rail Vikas Nigam Limited	Dr. Dinakar Pasla
16.	Carrying out Proof Checking Overhead Structural Utility Gallery for Tata Steel Kalinganagar	TATA Steel Limited	Dr. Dinakar Pasla
17.	Water Quality Analysis and Interpretation to check its suitability for construction purpose	M/s NCC Limited	Dr. Manaswini Behera
18.	Vetting of Traffic Assessment Study for Environmental Clearance of Residential Project of Utkal Builders Limited located at Patia	M/s Utkal Builders Ltd.	Dr. Rajesh Roshan Dash
19.	Vetting of Traffic Assessment Study for Environmental Clearance of Residential Project of Utkal Realtor Pvt Ltd located at Pahal		Dr. Rajesh Roshan Dash
20.	Vetting of the technical report on slope stabilization at slope protection at Noney Manipur	Gabion Technologies India Private Limited	Dr. B. Hanumantha Rao

S.N.	Title of the Project	Name of the Funding Agency	Name of the Faculty
			(Principal Investigator)
21.	Proof checking of Design and drawing of foundation (pile and pile cap) for one pier at location of ROB at MCL Talcher	Rites Ltd (Bhubaneswar)	Dr. Suresh Ranjan Dash
22.	Proof checking of flexible pavement design of Duburi- Chandikhol Section of NH-53	Ms Infra Engineers Private Limited	Dr. Anush K. Chandrappa
23.	Proof check of bridge no. 4 (ROB) and 5 (Over creek) for IPRCL Bhubaneswar	Indian Port Rail & Ropeway Corporation Limited	Dr. Devesh Punera
24.	Manufacturing of Building Blocks	M/S TATA Steel Limited	Dr. Dinakar Pasla
25.	Carrying out the vetting of PEB at Hindustan Coca Cola Beverages Pvt Ltd (Building structure design vetting under NBC- for building > 15meters)		Dr. Dinakar Pasla
26.	Vetting of Comprehensive Traffic Density Report for M/s Alishan Realcon Pvt Ltd at Nuahata Dist Cuttack Odisha for Environmental Clearance		Dr. Rajesh Roshan Dash
27.	Proof checking of 3.0m wide foot over bridge (steel structure) across at Singapur Road station as part of execution of 3 <sup>rd</sup> Railway Line project from TIG-VZM in East Coast Railway	-	Dr. Dinakar Pasla
28.	Proof check for major bridge no. 12 13 and 35 for the work "Development for railway infrastructure up to 4 MTPA plant expansion" of Vedanta Limited Jharsuguda		Dr. Devesh Punera
29.	Proof Checking of Bridge No.02 (1 X 6 m RCC Slab + 1 X 48.0 m Bow String Girder + 1 X 6 m RCC Slab)	Indian Port Rail & Ropeway Corporation Limited	Dr. Devesh Punera
30.	Soil Sample Analysis (Landfill PH-III-B)	Ramky Enviro Engineers Limited	Dr. B. Hanumantha Rao
31.	Vetting of Geotechnical Investigation Report Conducted at Kenjaru Village in Mangaluru Karnataka	M/S Swayin & Associates	Dr. B. Hanumantha Rao
32.	Proof checking of slopestability and settlement analysis of formation between Ballia Bansdin section of North Eastern Railway		Dr. Sumanta Haldar
33.	Mix designs for Cuttack Water Supply Project	JMC Projects (India) Limited	Dr. Dinakar Pasla
34.	Vetting of 2x300 MSV tanks for BPCL at Kondapally Vijayawada	M/S Creative Studio	Dr. Devesh Punera
35.	Structural vetting of 5 nos. of bridges of ESL Steel Ltd	M/s PIR Projects and Consultancy Private Limited	Dr. Goutam Mondal
36.	Vetting/Consultancy for - "Execution of Rural Piped Water Supply Project pertaining to Ranipada cluster of Banpur Block of Khorda district including five years Operation & Maintenance"	M/s UMSL Ltd	Dr. Arindam Sarkar
37.	Concrete Mix Design for the construction of 3km long three lane flyover near joda	M/s RANJIT-CHEVROX (JV) C/o Odisha Bridge & Construction Coporation Limited	Dr. Dinakar Pasla
38.	Testing of Construction Materials for proposed Rail connectivity of Spur No 3 & 4 Jagannath Washery under Jagannath Area Talcher	M/s Shanti Construction	Dr. U. C. Sahoo
39.	Vetting of Comprehensive Traffic Density Report for M/s Assotech Sun Growth Adobe LLP at Rudrapur Bhubaneswar Odisha for Environmental Clearance.		Dr. Rajesh Roshan Dash
40.	Study of failure of beams of Track Hopper & proposal for rectification.	M/S Odisha Power Generation Corporation Limited	Dr. Dinakar Pasla

S.N.	Title of the Project	Name of the Funding Agency	Name of the Faculty (Principal Investigator)
41.	Monitoring and remedial measures for controlling settlement on the embankment for Kolkata Metro	M/S Rail Vikas Nigam Limited	Dr. Sumanta Haldar
42.	Proof check for design and detailed engineering and execution of piping civil & structural jobs related to NG firing facility in GTs at PDR		Dr. Devesh Punera
43.	Proof Checking for Shiv Statue at Jajpur Odisha	M/S Matu Ram Art Centres Private Limited	Dr. Dinakar Pasla
44.	Mix design for construction of Lord Shiva Statue at Jajpur Town	M/S Matu Ram Art Centres Private Limited	Dr. Dinakar Pasla
45.	Scrutiny of structural design of Sudarshan Vatika	M/S Sudarshan Estcon Private Limited	Dr. Devesh Punera
46.	Surface Run-Off Management Study at Gandhamardan Iron Ore Mine Block-A & Block B M/s OMC Ltd located in Telkoi Tahasil of Keonjhar District Odisha	M/s OMC Ltd	Prof. R. K. Panda
47.	Structural vetting of the Swosti Premium Beach Resorts a B+G+13 storied resort project situated at Sipasurubuli Puri	M/S Swosti Premium Limited	Dr. Goutam Mondal
48.	Consultancy Services for proof checking of the Design Calculations and Working drawings of the bridges and culverts on Non-Government Railway line of The Dhamra Port Company Limited at Dhamra Odisha		Dr. Suresh Ranjan Dash
49.	Carrying out vetting of projects developed by Utkal Developers for Patrapada2 Bhubaneswar	M/S Utkal Builders Ltd.	Dr. Dinakar Pasla
50.	Water management at MGM Minerals Limited Dhenkanal	M/S. MGM Minerals Limited	Dr. Arindam Sarkar
51.	Construction & upgradation to 2-lane with paved shoulder from Design Km. 67+805(End of 83 <sup>rd</sup> km Tunnel) to Km 80+675 (Start of Kistwar Bypass) of 12.870 Km length on Khellani-Kishtwar-Chattroo section of NH-244 in the Union Territory of Jammu & Kashmir on EPC mode (PkgIII)		Dr. Partha Pratim Dey
52.	No increase in pollution load certificate for constructing 2 <sup>nd</sup> red mud pond	M/S National Aluminium Co. Ltd.	Dr. B. Hanumantha Rao
53.	Proof checking the Designs and Drawings of Minor Bridges in connection with Jaroll-Jakhpura railway doubling project		Dr. Suresh Ranjan Dash
54.	Design of non-shrink concrete for Tata Steel Kalinganagar project	M/S Tata Steel Limited	Dr. Dinakar Pasla
55.	Audit on geotechnical investigation calculations of pile capacity piling practices pile test procedures and suggesting measures for improvement in pile drilling process.		Dr. B. Hanumantha Rao
56.	Mix designs for M30 grade of concrete using PPC PSC and SRPC at Chandipur	M/S Cmrgs Infrastructure Projects Ltd.	Dr. Dinakar Pasla
57.	Proof checking of the design of Railway Foot Over Bridge (Steel Structure) at AMB station yard		Dr. Dinakar Pasla
58.	Development of Concrete Mix Designs for IIM Sambalpur	M/S Dee Vee Projects Limited C/O NBCC(INDIA) Limited	Dr. Dinakar Pasla
59.	Vetting of new South-west red mud pond and PWL (Process Water Lake) designs		Dr B. Hanumantha Rao
60.	Mix design for Construction of Substructure and Superstructure at Chandipur	M/S LIRA Constructions Private Limited C/O MES Chandipur Odisha	Dr. Dinakar Pasla
61.	Proof checking of foot over bridge and overhead piping crossing railway track for Tata Steel	M/s Tata Steel Limited	Dr. Dinakar Pasla

S.N.	Title of the Project	Name of the Funding Agency	Name of the Faculty (Principal Investigator)
62.	Soil core lab testing	M/s Ramky Enviro Engineers Limited	Dr. B. Hanumantha Rao
63.	Environmental Audit of CHWTSDF	M/s Ramky Enviro Engineers Limited	Dr. B. Hanumantha Rao
64.	Development of Hydrophobic Concrete for Seabird Project	M/s Master Builders Solutions India Private Limited	Dr. Dinakar Pasla
65.	Vetting of GTI rock fall protection netting specifications "D-WR"	Gabion Technologies India Private Limited	Dr. B. Hanumantha Rao
66.	Measurement of factor of safety for tailings dams of RMP & ash pond at Vedanta Limited	Vedanta Limited Aluminium & Power	Dr. B. Hanumantha Rao
67.	Vetting of box culvert design of Jeypore airport under RCS- UDAN (Long Term)	Directorate of Aviation Bhubaneswar C/o M/s Nirman Soudha	Dr. Goutam Mondal
68.	Proof checking of the structural design & drawing of PEB Hangar at Biju Patnaik international Airport Bhubaneswar	M/s Yazdani International Pvt.Ltd/ C/o Capt Zaheed Parvez	Dr. Goutam Mondal
69.	Structural Scrutiny of Railway Buildings	M/s PIR Projects and Consultancy Private Limited	Dr. Goutam Mondal
70.	Consultancy for corrective action for cracks developed during launching of pre-cast rcc box segment (span $2 \times 6.0 \times 6.0 \text{ m}$ )	M/s RITES Limited	Dr. S. R. Dash
71.	Environmental Audit of secured landfill in smelter plant NALCO at Angul	NALCO	Dr. R. R. Dash
72.	Design of CGBM using Provence 907 a ready mix grout	M/s Avijeet Agencies Pvt.Ltd	Dr. U. C. Sahoo
73.	Rehabilitation and Up-gradation of Road from Km 0.000 to Km 16.290 (Lenggth- 16.290 km) of Manu-Lalcherra section of NH 44A to two lane with Paved shoulder in the state of Tripura on EPC basis (pkg-1)- safety consultant service reg.	M/s SSK Infrastructures	Dr. Partha Pratim Dey
74.	Carrying out Mix-designs of concrete for the Widening & Strengthening of Sankara Bypass Road	M/s Altima Infrastructure Private Limited C/O NBCC (India) Limited	Dr. Dinakar Pasla
75.	Proof check and scrutiny of designs and drawings of substructure for 3 nos of major bridges in connection with NTPC-LARA project	M/s RITES Limited	Dr. Suresh R. Dash
76.	Testing of spray concrete panels with PP fibers	M/s Master Builders Solutions India Private Limited C/0 M/s BASF India Ltd	Dr. Dinakar Pasla
77.	Surface Run-Off Management studies at Daitari Iron Ore Mine South Kaliapani Chromite Mine and Sukrangi Chromite Mines M/s OMC Ltd	The Odisha Mining Corporation	Prof. R. K. Panda
78.	Product development and technical support for cold mix Asphalt Application in Eastern India	Bitchem Asphalt Technologies Ltd	Dr. U. C. Sahoo
79.	Carrying out the third party quality assurance consultancy (TPQAC) for the construction and development of Kendriya Vidyalaya School at Jagatsinghpur Odisha		Dr. Dinakar Pasla
80.	Proof checking of design and drawing of substructure and foundation of 5 major bridge at Brajrajnagar Jharsuguda		Dr. S. R. Dash
81.	Carrying out concrete mix designs for new greenfield airport at Hirasaar Rajkot (Gujarat)		Dr. Dinakar Pasla
82.	Proof checking of detailed design and drawing for construction of New Greenfield Airport at Rajkot Gujarat		Dr. Anush K. C.
83.	Database for Principal Technical Agency & State Technical		Dr. U. C. Sahoo

S.N.	Title of the Project	Name of the Funding Agency	Name of the Faculty (Principal Investigator)
84.	Proof check and scrutiny of design and drawings of 1 major bridge substructure and foundation in connection to NTPC- LARA project	RITES Ltd	Dr. S. R. Dash
	School of Mechani	cal Sciences	
85.	Technical viability of use of Raw Petroleum coke in Manufacturing of ECP/Soderberg Paste	NOC Foundation New Opportunity For Childrens	Dr. V. Pandu Ranga
	School of Minerals Metallurgical	and Materials Engineering	
86.	Accretion control in kins to enhance campaign life from 60 days to 90 days	Shri Mahavir Ferro Alloys (P) Ltd	Prof. Brahma Deo MGM Chair Professor
87.	No increase in pollution load certificate for additional products of Portland composite cement (PCC) Masonry cement (MC) Sulfate reisisting Portland cement (SRPC)		Dr. Rama Krushna Sabat
88.	Composite roll feasibility study of M/s Deem Rool Technology Pvt Ltd	M/S Deem Roll-Tech Limited	Dr. Partha Sarathi De
89.	Environmental Audit of secured landfill facility at Paradip Refinery Paradip Odisha	M/s Indian Oil Corporation Limited	Dr. Rama Krushna Sabat
90.	Testing of TMT Rebar	M/s Rungta Mines Limited C/o R&D & Q.P (R&B) Govt. of Odisha	Dr. Soobhankar Pati
91.	Development of static model for Tata steel BOF	Tata Steel Ltd	Prof. Brahma Deo
92.	SS310 Testing by IIT BBSR for SAP HRS TOWER and TFR $\ensuremath{PIPING}$		Dr. Srikant Golapudi



# SPARC Project Conducted During 2021-22

S. N.	Project Cod & Title	Name of Project In charge	Name of the International Investigators	Name of the University
1.	Code: P701: Title: Securing Implantable Medical	Dr. S. Pinisetty	Dr. Parth S Roop	The University of Auckland, New Zealand
	Devices using Formal Methods		Dr. Mark Trew	The University of Auckland, New Zealand
2.	Code: P420	Prof. S. K.	Prof. Sunil Kumar	New York University(NYU), USA
	Title: Computationally Guided Laser Based Tumor Diagnosis and Therapy	Mahapatra	Prof. Zhixiong Gou	Rutgers University- (New Brunswick), USA
			Prof. Kunal Mitra	Florida Institute of Technology, USA
З.	Code:P275	Dr. S. Patra	Dr. Michael Brown	University of Dundee, UK
	Title: Design and Development of Low-Cost, Easy to Install, Sustainable Foundations for Renewable Energy Devices		Dr. Jonathan knappett	University of Dundee, UK
4.	Code: P468	Dr. M. S.	Prof. Keshab K. Parhi	University of Minnesota, USA
	Title: E3DCRM: Energy-Efficient Embedded Systems for Data-Driven Cardiac Rhythm Monitoring	Manikandan & Dr. Srinivas Boppu	Dr. Alena Talkachova	University of Minnesota, USA
5.	Code: P712	Dr. Manoranjan	Prof. Laxmi Narayan Bhuyan	Univeristy of California, USA
	Title: Rigorous Verification and Validation of Memory Systems in	Satpathy	Dr. Sumit Kumar Jha	University of Central Florida, USA
	Heterogeneous		Prof. S Ramesh	General Motor R & D, USA
6.		Dr. Meenu Ramadas	Dr. Meghna Babbar-Sabens	Oregon State University, USA
			Dr. Jenna Tilt	Oregon State University, USA
	Support Cyberinfrastructure for Empowering Rural Communities to Plan for Water-Agro-Energy Climate Resiliency.		Mr. Suresh Marru	Indiana University Bloomington, USA
7.	Code: P680 Title: Wearable devices based on multi	Dr. Rajan Jha	Dr. Lei Wei	Nanyang Technological University, Singapore
	material and post processed fiber		2.Dr. Rajan Singh	Nanyang Technological University, Singapore
8.	Code: P879 Title: A Novel Biotreatment of	Dr. Hanumantha B. Rao	Prof. Krishna R Reddy	University of Illinois, Chicago(UIC), USA
	Bauxite Residue for Conversion into Sustainable Geomaterial		Prof. Craig D Foster	University of Illinois Chicago(UIC), USA
9.	Code: P1249 Title: Stochastic Geometry-based	Dr. Barathram Ramkumar	Dr. Harpreet S Dhillon	Virginia Polytechnic Institute (Virginia Tech)
	Design of UAV-Assisted IoT Network for Ubiquitous Surveillance Applications		Prof. Michael R. Buehrer	Virginia Polytechnic Institute (Virginia Tech)
10.	Code: P1167 Title: Design and Development of Low	Dr. Subhransu Ranjan	Dr. Virgilio A Centeno	Virginia Polytechnic Institute (Virginia Tech)
	cost Time Synchronized devices for SWAMs in Smart-Grids		Prof. Chen-Ching Liu	Virginia Polytechnic Institute (Virginia Tech)
11.	Code: P744	Dr. Animesh	Prof. Hari-Babu Nadendla	Brunel University
	Title: Aluminium-Cerium based alloys for high temperature applications	Mandal	Dr. Brian McKay	Brunel University

# **Patents Filled**

S. N.	Title	Name of the inventor/s	Application No.	Year	School
1.	Microwave based torrefaction system for biomass	Dr. Remya Neelanchery	202131017278	2021	SIF
2.	Gypsum-red mud composites for non- structural applications	Dr. Srikanta Golapudi, Dr. Hanumanta Rao, Mr. Rajendra Goud, Mr. P. Chaitanya, Dr. K. Vijayakrishna and Dr. P. Dinakar	202131033229	2021	SMMME, SIF and SBS
3.	All-optical system and method for active modulation of optical signals	Dr. Rajan Jha, Dr. Venugopal, Mr. Kalipada Chatterjee and Mr. Subrat Sahu	202131047683	2021	SBS and SMS
4.	Wearable, skinmountable and multifunctional flexible sensor systems based on reconfigurable optical interferometer		202131053181	2021	SBS
5.	An Optical System and Method for Physiological Activity Monitoring	Dr Rajan Jha and Mr. Kalipada Chatterjee	202231014885	2021	SBS

# **Patents Granted**

S. N.	Title	Name of the inventor/s	Application No.	Patent Number	School
1.	A Processing Condition Monitoring System And/Or Method For Motor Operated Utility Products Such As Food Processors and the Like	Satya Narayan Panigrahi, Dibya Prakash Jena	1391/KOL/2012	370356	SMS
2.	Graphene Coated Metal/ Metal Alloy Wire and Its Process of Manufacture	Dr. Kisor K. Sahu, Shreeja Das, Soumyabrata Basak, Dr. Soobhankar Pati, Prof. Saroj Kumar, Anil D. Pathak, Turin Dutta, V. Sai Pranav, Dr. Amritendu Roy	201631017052	372089	SMMME and SBS
3.	Device For Raising And	Prof. Brahma Deo, Srinivas Karumanchi, Satya Venkata Seshu Kumar Devarakonda, Kanan Kumar Sahoo, Ms. Ishani Shukla, Dr. Deepu Phillip, Dr. Kantesh Balani, Dr. Madhurai Malathi	949/CHE/2015	366467	SMMME

## Invited Lecture/Presentation/Conference/Workshop/ Programmes/Seminar/Lecture/Colloquium by Faculty

i. I.	Title of Lecture/ Presentation	Author(s)	Conference Name, Year, Duration, Place	Remarks
	ool of Basic Sciences			
•	Scalable Total Syntheses of Some Natural/Unnatural Marine Pyrrole Alkaloids	Dr. Tabrez Khan	RAHC-2022	
2.	A novel approach to manipulate ceramic nanostructures for applications in energy storage and coating	Dr. Shyamal Chatterjee	International conference on recent advances in materials (ICRAM - 2022), 21 <sup>st</sup> – 23 <sup>rd</sup> march, 2022, CUTM, Bhubaneswar, India	Invited talk
	A novel approach to manipulate ceramic nanomaterials for various frontier applications		International Online Conference on Materials Science and Technology 2021, Mahatma Gandhi University, Kottayam, Kerala, India	Invited talk
ŀ.	Irradiation Induced Modification of Surface Chemistry of Nanostructured Materials for Frontier Applications	Dr. Shyamal Chatterjee	3 <sup>rd</sup> International Webinar on Chemistry and Applied Sciences, USA, 11-12 <sup>th</sup> November 2021	Invited talk
5.	A novel approach to join ceramic nanomaterials and its implications in energy storage device		17 <sup>th</sup> International Conference on Advanced Nanomaterials, University of Aveiro, Portugal, July 22-24, 2021.	Talk
5.	A novel approach to manipulate ceramic nanomaterials for various frontier applications	,	International Online Conference on Materials Science and Technology 2021, Mahatma Gandhi University, Kottayam, Kerala, India	Session Chair
7.	Environment dependent vibrational heat transport in molecular junctions : Rectification, quantum effects, vibrational mismatch		Qmat 2021	Invited Speaker
3.	Molecular Probes for Magnetic Resonance & Fluorescence Imaging	Dr. A. K. Singh	Recent Advances in Inorganic Chemistry	
Э.		Dr. A. K. Ojha	Invited talk on n AICTE-ISTE- Sponsored One Week Online FDP on "Multi-Objective Optimization: Algorithms and Engineering Applications, on 22-02-2022 to 28-02- 2022 at Government Engineering college Valsad, Gujurat 2022	
0.	Tangency Portfolio Optimization	Dr. A. K. Ojha	2 <sup>nd</sup> International Conference on Applied Mathematics in Science and Engineering at SOA University 24 <sup>th</sup> -26 <sup>th</sup> march 2022	Invited talk
1.	The Mystery and Beauty of Julia sets	Dr. Tarakanta Nayak	Recent Advances in Mathematics, Ravenshaw University, Cuttack, 26-28 October 2021	Held online
2.	Oncogenic Characterization of ATAD2 in Stomach Cancer	Dr. Anasuya Roychowdhury	Invited speaker at International seminar on Recent Advances in Chemistry and Material Science, 160 <sup>th</sup> Birth Anniversary Celebration of Acharya Prafulla Chandra Ray organized by the Indian Chemical Society, Kolkata (August 7, 2021).	

S. N.	Title of Lecture/ Presentation	Author(s)	Conference Name, Year, Duration, Place	Remarks
13.	Many Color Codes in two dimensions	Dr. Pramod Padmanabhan	String Meeting, Institute of Physics, Bhubaneswar, 2021	
14.	Subspace projection method to investigation scattering resonances	Dr. Kousik Samanta	Theoretical chemistry symposium 2021	
15.	Developments in Extended Thermodynamics of Black Holes.	Dr. Chandrasekhar Bhamidipati	String Meeting, Institute of Physics, Bhubaneswar, 2021	Oral Presentation
Scho	ool of Electrical Sciences			
16.	The chirp-spread spectrum modulation for the Internet of Things	Dr. S. S. Borkotoky	Modulation, Coding and Multiple Access Techniques for Wireless Communication and Storage Systems: ATAL FDP, IIT Goa	
17.	Cloud-Based Event and Agricultural Data Management	Dr. S. S. Borkotoky	Application of IoT in Agriculture: ATAL FDP, Gandhi Institute of Technology, Bhubaneswar	
18.	Runtime verification and its possible application to memory systems	Dr. Srinivas Pinisetty	CPU-GPU Memory Systems: Optimization Opportunities and Verification Challenges (SPARC 2 day workshop, 13 and 14 August 2021)	
19.	Trends, Challenges and Opportunities in Wireless IC Design	Dr. Vijaya Sankara Rao Pasupureddi	Siksha 'O' Anusandhan Deemed to be University Bhubaneswar	
20.	Coded Gradient Aggregation	Dr. Anoop Thomas	at CNI Network Seminar Series, Indian Institute of Science Bengaluru	Invited Talk
21.	Converters for Hybrid Vehicles and its Switching Techniques	Dr. Srinivas Bhaskar Karanki	"Advances in Renewable Energy and Electric Vehicles" from 26 <sup>th</sup> – 30 <sup>th</sup> March 2022,	NIT Silichar
22.	High-gain Transformer less Power Electronic Converter Topologies For Renewable Energy Sources		"Power Electronics Applications in Renewable Power Generation Systems", (21-30, SEP 2021)	IIIT D & M
23.	High Gain DC DC Converters and its Simulation Studies	Dr. Srinivas Bhaskar Karanki	"Simulation Tools for Electrical Engineering & its real time applications", 07.06.2021 to 12.06.2021.	Kallam Haranadhareddy Institute of Technology (KHIT)
24.	Energy Storage Integration to Grid for Ancillary Services	Dr. Srinivas Bhaskar Karanki	"Hybrid Energy Storage Systems- DPE"(Phase-I), 24 <sup>th</sup> March 2021 to 30 <sup>th</sup> March 2021	Pragati Engineering College
25.	Use of IoT and Machine Learning approaches to make power distribution network smarter.	Dr. C. N. Bhende	Conference on Applied Electromagnetics, Signal Processing and Communication (AESPC-2021)	Keynote Speaker
26.	Al and its Applications in Cyber Security	Dr. Padmalochan Bera	FDP on Al and Cyber Security, NIT Warangal	Invited Lecture
27.	Machine Learning for Cyber Security - an intelligent Intrusion Detection perspective		STC on Recent Trends and Applications in Machine Learning	Invited Lecture
28.	Bioradar Technology: Current and Future Scope	Dr. D. Ghosh	Emerging Wireless Technologies: Connecting the Future, NIT Rourkela, 19 <sup>th</sup> – 23 <sup>rd</sup> March 2022	Invited Lecture
29.	Industrial Applications of High Voltage - Part I	Dr. Sankarsan Mohapatro	Condition Monitoring of Power Apparatus adopting Multi Sensor Fusion Technique, 2022, 28 Feb to 6 <sup>th</sup> March, 2022	

S. N.	Title of Lecture/ Presentation	Author(s)	Conference Name, Year, Duration, Place	Remarks			
	School of Earth, Ocean and Climate Sciences						
30.		Dr. S. Pattnaik,	INTROMET-2021	Invited lecture			
31.	Climate Change and Extreme Weather Events	Dr. S. Pattnaik	Faculty Orientation program Organized by Human Resource Development Centre (HRDC) Utkal University	Invited lecture			
32.	Climate change in the context of Odisha	Dr. S. Pattnaik	National Disaster Management Authority	Invited lecture			
33.	Climate Change and Severe Weather	Dr. S. Pattnaik	Niyatee foundation	Invited lecture			
34.	Remote Sensing to the Remote Rescue	Dr. D. Swain	14 <sup>th</sup> SOA Weekly Academic Lecture (SOAWAL), 2021, October 30	Organised by American Society of Civil Engineers Student Chapter & SOA University Dept. of Civil Engineering			
35.	Effective utilization of remote sensing for monitoring coastal water quality	Dr. D. Swain	International Workshop on Water for all: Addressing issues surrounding water quality, quantity and waste water treatment in India, 2022, January 11-13	Organised by DST- UKIERI			
36.	Atmospheric Aerosols and Air Pollution Over the Indian Region: A Meteorological Perspective	Dr. V. Vinoj	International Symposium on Tropical Meteorology (INTROMET 2021) on 24 <sup>th</sup> November 2021 at Cochin University of Science and Technology, Kochi, INDIA.				
37.	Aerosol loading over the Indo- Gangetic Plains and its link to changing climate and land use over the Thar Desert and Rajasthan	Dr. V. Vinoj	International Conference on Aerosol Air Quality, Climate Change and Impact on Water Resources and Livelihoods in the Greater Himalayas				
38.	Natural Aerosols and the Indian Summer Monsoon Rainfall	Dr. V. Vinoj	Frontiers in Geosciences Research Conference, Physical Research Laboratory, Ahmedabad, 28 <sup>th</sup> Sept 2021				
39.	Air Pollution and Climate Change	Dr. V. Vinoj	International Day of Clean Air for Blue Skies, 2021, State Pollution Control Board, Odisha, Bhubaneswar Regional Office, 7 <sup>th</sup> Sept 2021				
40.	Particulate Air Pollution over the Indian Region: A Meteorological/ Climate Perspective	Dr. V. Vinoj	National Webinar on Environment and Ecosystem Restoration at K. L. University, Andhra pradesh, World Environment Day, 2021.				
41.	Particulate Air Pollution over the Indian Region: A Meteorological Perspective	Dr. V. Vinoj	Geological Survey of India e-training entitled "Course on Medical and Environmental Geology" (31 <sup>st</sup> May - 4 June 2021)				
Scho	ool of Infrastructure						
42.	Monitoring of railway track using wireless sensors	Dr. Saravanan. T.J.	Resource person for Short Term Training Programme (STTP) on "Repair, Rehabilitation & Retrofitting Techniques of Reinforced Concrete Structures" Phase-III from 28 <sup>th</sup> June to 03 <sup>rd</sup> July 2021, SRIT-India, sponsored by AICTE.				

S. N.	Title of Lecture/ Presentation	Author(s)	Conference Name, Year, Duration, Place	Remarks
43.	Piezoelectric sensor-based early age monitoring and damage progression in concrete	Dr. Saravanan. T.J.	Resource person for Short Term Training Programme (STTP) on "Repair, Rehabilitation & Retrofitting Techniques of Reinforced Concrete Structures" Phase-III from 28 <sup>th</sup> June to 03 <sup>rd</sup> July 2021, SRIT-India, sponsored by AICTE.	
44.	Foundation for renewable energy devices	Dr. S. Patra	Five days National FDP on "Emerging areas of Geotechnical Engineering" at the Department of Civil Engineering, SKDAV Government Polytechnic, Rourkela, 2021, July 13-17	
45.	Estimation of conflicting traffic volume using temporal conflicting factor	Dr. P.P. Dey	Faculty development program on "Advances in Highway Technology and Traffic Systems (7-11 February 2022	
46.	Performance assessment of urban roads (INDO-HCM Method)	Dr. P.P. Dey	14 <sup>th</sup> -18 <sup>th</sup> February, 2022, organized by Department of Civil Engineering, Indira Gandhi Institute of Technology Sarang (An Autonomous Institute of Govt. of Odisha)	
47.	Geotechnics and valorization of industrial wastes in promising applications	Dr. B.H. Rao	two-day Int. Conf. on "Advances in Civil Engineering (ICACE-2021), organized by Department of Civil Engineering, KL Deemed to be University, Guntur, Andhra Pradesh, from 19 <sup>th</sup> – 20 <sup>th</sup> June 2021.	
48.	Geotechnics and valorization of industrial solid wastes	Dr. B.H. Rao	IGS Warangal chapter lecture series organized by Department of Civil Engineering, NIT Warangal, August 29 <sup>th</sup> 2021.	
49.	Potential of Pyrolysis Techniques for Sustainable Waste Management	Dr. Remya Neelancherry	STC - Advancement in Sustainable Waste Management	
50.	Leachate collection & treatment	Dr. Remya Neelancherry	STC- Design of landfill and waste containment system	
51.	Synthesis of Titanium-Based Nanomaterials for Photocatalytic Applications		GIAN ourse - Nanotechnology in Water and Wastewater treatment	
52.	Utilization of modified dolochar for removal of phosphate in rural domestic wastewater treatment		Advances in Energy, Environment for Sustainable Development (AEESD 2022), 2022, 7 <sup>th</sup> and 8 <sup>th</sup> January 2022	
53.	Biological Treatment of Solidwaste	Dr. Rajesh Roshan Dash	Special Seminar at GIFT, Bhubaneswar, 2022, 22.03.2022	
54.	Environmental Pollution and Traffic Flow	Dr. Rajesh Roshan Dash	TEQIP 3 Short term course on Traffic Flow Modeling	
55.	Design and Construction of Soil- Cement Bases for Cost-effective Rural Roads		Workshop on Recent Advancements & Economic Aspects of Transportation Geotechnology, NIT Agartala, 20-24 December 2021	Online
56.	Design of Flexible Pavements in India	Dr. U.C. Sahoo	Training Programme on Design, Construction & Maintenance of Flexible Pavements, 22 Nov-03 Dec 2021	Online

S. N.	Title of Lecture/ Presentation	Author(s)	Conference Name, Year, Duration, Place	Remarks
57.	Design of Rural Roads-A Sustainable Approach	Dr. U.C. Sahoo	ATAL FDP on Contemporary Technologies for Sustainable Road Construction, during 01-05 Oct 2021, SOA University, Bhubaneswar	Online
58.	Pavement Maintenance Techniques	Dr. U.C. Sahoo	AICTE sponsored FDP on Recent Advances in Pavement Analysis, Design and Evaluation, during 20-24 September 2021, IIT Jodhpur, Rajasthan, India	Online
59.	Design and Construction of Soil- Cement Bases for Cost Effective Pavements	Dr. U.C. Sahoo	Workshop on Pavement Characterization And Traffic Analysis (PCTA-2022), 21-25 February, 2022, IGIT, Sarang, Odisha	Online
60.	Design of Long Life Pavements	Dr. U.C. Sahoo	AICTE-QIP sponsored Short Term Programme on "Advances in Pavement Engineering", 24-28 May 2021, IIT Bhubaneswar	Online
61.	Emerging Trends in Offshore Geotechnical Engineering	Dr. Sumanta Haldar	Faculty Development Programme (FDP) at VNIT Nagpur, 2021, 5 days	Invited Lecture
62.	Challenges in Foundation Design for Offshore Wind Energy Converters	Dr. Sumanta Haldar	IIT Roorkee Research Conclave 2021, 3 days	Invited Lecture
63.	Future Changes in Hydroclimatic Drought Characteristics based on the CMIP6 Multi-model Ensemble		DST-GATI sponsored webinar series on "Advances in Water Resources Engineering (AWRE-2022)", February 15-19, 2022	
64.	Impacts of Climate Change on Hydro-Meteorological Extremes Through Case Studies		Faculty Development Training Sessions for Civil Engineers, October 04-09, 2021	
65.	Urban Hydrologic Modeling using HEC-HMS & SWMM: Simulating Storm Water Runoff under Pre- and Post-development Conditions	Dr. Meenu Ramadas	AICTE Training and Learning Academy (ATAL) Sponsored 5-Days online FDP on "Urban Hydrology", August 02–06, 2021	
66.	QA & QC In Rigid Pavements	Dr. Anush Konayakanahalli Chandrappa	Department of Civil Engineering, IIT BHU, Varanasi held on 27-Feb-22	Invited Lecture
67.	Design of Dry lean concrete and thin white Topping	Dr. Anush Konayakanahalli Chandrappa	Department of Civil Engineering, IIT BHU, Varanasi held on 27-Feb-22	Invited Lecture
68.	Application of image processing and analysis techniques in Paving mixtures		Department of Civil Engineering, IGIT, Sarang held on 25-Feb-22	Invited Lecture
69.	Structural Evaluation of Flexible Pavement using Falling Weight Deflectometer		Department of Civil Engineering, GMRIT, Vishakapatnam held on 19-Feb-22	Invited Lecture
70.	Structural Evaluation of Flexible Pavement using Falling Weight Deflectometer	Dr. Anush	Department of Civil Engineering, KIIT, Bhubaneswar held on 27-Oct-21	Invited Lecture
71.	Application of Image Processing and Analysis Techniques in Paving Mixtures	Dr. Anush Konayakanahalli Chandrappa	Department of Civil Engineering, G H Raisoni College of Engineering and Management, Pune held on 29-Jul-21	Invited Lecture
72.	Pervious concrete for Pavement Applications - Solution towards Low Impact Development		Department of Civil Engineering, Mar Baselios College of Engineering and Technology, Kerala held on 08-Jul-21	Invited Lecture

S. N.	Title of Lecture/ Presentation	Author(s)	Conference Name, Year, Duration, Place	Remarks
	ool of Humanities, Social Sciences	& Management		
73.	Analysis of Union Budget 2022- 23		Panel discussion on Analysis of Union Budget 2022-23	Department of Business Management CV Raman Global University
74.	Union Budget 2022-23	Dr. D. Sahoo	Panel discussion on Analysis of Union Budget 2022-23	Madhusudan Das Regional Academy of Financial Management (MDRAFM), Bhubaneswar
75.	National Income Accounting	Dr. D. Sahoo	Talk to the OT&AS Probationers	Madhusudan Das Regional Academy of Financial Management (MDRAFM), Bhubaneswar
76.	Business Environment Scanning	Dr. Naresh Chandra Sahu	FDP on making self-sufficient entrepreneurs & innovators	
77.	Business Environment Scanning, Role of DIC, SIDC, DI-MSME, IPR and business decision making	Dr. Naresh Chandra Sahu	FDP on making self sufficient entrepreneurs & innovators	
78.	Indian Financial System, Money Market & Bond Market	Dr. Naresh Chandra Sahu	Short Term Training Programme on Financial Market & Portfolio Management from 05 <sup>th</sup> July to 11 <sup>th</sup> July 2021,Kirloskar Institute of Advanced Management Studies, Harihar	
79.	Strategies for Sustainable Development: issues and Challenges	Dr. Naresh Chandra Sahu	Bhagat Phool Singh Mahila Viswavidyalaya, Haryana, and national Symposium on the theme "Sustainable Development: Path Ways to save the Planet organized by Faculty of Social Sciences from 20-21 Dec.2021.	
80.	Women in Leadership Roles	Dr. Amrita Satapathy	Webinar on Empowering Women at the Workplace	Speaker, WWC, IIT BBS
81.	Digital Education: Challenges and Road Ahead		Webinar on Digital Education: Challenges and Road Ahead, Her- World in collaboration with Policy Centre and Gender Lab, Miranda House, New Delhi,	Panelist, Her- World in collaboration with Policy Centre and Gender Lab, Miranda House, New Delhi,
82.	'Online Teaching Practices in English'	Dr. Punyashree Panda	International FDP on 'Online Teaching Practices in English,' 14-18 June 2021	Virtual
83.	Pair Interactions and Group Discussions	Dr. Punyashree Panda	AICTE ATAL online FDP Personal Effectiveness, 23-27 August 2021	Virtual
84.	Effective Team Work	Dr. Punyashree Panda	AICTE ATAL FDP from 26-30 July 2021	
85.	Enhancing Communication: Empowering Technocrats	Dr. Punyashree Panda	AICTE QIP STC from 7-11 June 2021	

S. N.	Title of Lecture/ Presentation	Author(s)	Conference Name, Year, Duration, Place	Remarks
86.	Effective Team Work	Dr. Punyashree Panda	AICTE ATAL FDP "(Advanced Level) from 4-8 October 2021	
87.	Design Thinking	Dr. Punyashree Panda	AICTE-ISTE sponsored Induction / Refresher Program (online) titled "Pedagogy Workshop On Innovative Teaching And Learning" during 04/01/2022 to 10/01/2022	Virtual
88.	Before and After White Arrival: A Postcolonial Narrative of Struggle and Survival in Mitiarjuk Nappaaluk's Sanaaq	Dr. Punyashree Panda	Department Of Germanic And Romance Studies University Of Delhi Annual International Conference Conflict And Literature: Narratives Of Struggle 10 <sup>th</sup> - 12 <sup>th</sup> March 2022	Virtual
89.	Cartographies of Gender based Violence: Literary Reflections from South Asia and Beyond		International Conference on Cartographies of Gender based Violence: Literary Reflections from South Asia and Beyond, IIT Patna-SICI, 10-11 March 2022	Virtual Chairing of a Panel
90.	Mapping Memory in the Wake of the Posthuman: India and Canada		IITBBS-SICI International Conference from 25-26 March 2021	
Scho	ool of Mechanical Sciences			
91.	Microwave Remote Sensing of Earth's Atmosphere	Dr. S. R. Kannan	Radiation Transport and Applications, Jan 2022	
92.	Surface integrity issues in hard turning	Dr. Gaurav Bartarya	Advancement in Manufacturing processes and Techniques, 2021, July 12-16	Short term course
93.	Laser material interaction phenomena; Laser cutting, drilling, grooving & Water assisted Laser Processing	Dr. Suvradip Mullick	Advancement in Manufacturing Processes and Techniques, 2021, 12-16 July	Online short- term course under the Quality Improvement Program (QIP) of All India Council for Technical Education (AICTE), Government of India
94.	Sustainable Machining of Aerospace Alloys	Dr. Chetan	Emerging Trends in Mechanical Engineering Conducted by Department of Mechanical Engineering (Sharda University) from 21/06/2021 to 26/06/2021	
95.	Green Approaches in Machining of Aerospace alloys	Dr. Chetan	FDP on " Current & Future Prospects in Mechanical and Heavy Industries" Conducted by Department of Mechanical Engineering (Sharda University) from 06/12/2021 to 10/12/2021	
96.	Sustainable Manufacturing	Dr. Chetan	Short term course on Advances in Manufacturing Engineering and Materials (IIT Indore) from 04/04/2022 to 09/04/2022	
97.	Application of Abrasive Finishing Operations	Dr. Chetan	Contemporary Approaches in Manufacturing and Their Applications" conducted by Mechanical Engg. Department from 19/04/2021 to 23/04/2021	
98.	Application of Surface Engineering in Manufacturing	Dr. Chetan	Virtual Expert Talk Series 2022 organized by Department of Mechanical Engineering (Desh Bhagat University) on 26/04/2022	

S. N.	Title of Lecture/ Presentation	Author(s)	Conference Name, Year, Duration, Place	Remarks
99.	Biped Robotics	Dr. V. Pandu Ranga	Department of Mechanical Engineering G H Raisoni Institute of Business Management, Jalgaon, Nagpur	Invited lecture, April 2022
100.	Biped Robotics	Dr. V. Pandu Ranga	Department of Mechanical Engineering, MIT ADT University, Loni Kalbhor, Pune	Invited lecture, March 2022
101.	Biped Robotics	Dr. V. Pandu Ranga	Recent Trends in Robotics (RTR-2021)" at Vasavi College of Engineering, Hyderabad	FDP, December 2021
102.	Biped Robotics	Dr. V. Pandu Ranga	Industrial IOT and Robotics at NITTTR, Chandigarh	AICTE-QIP FDP, November 2021
103.	Biped Robotics	Dr. V. Pandu Ranga	Advances in Modelling and Control of Robotics (AMCR-2021)" at NIT Kurukshetra	STC, October 2021
104.	Advanced Manufacturing	Dr. Gaurav Bartarya and Dr. Suvradip Mullick	Advancement in Manufacturing Process and Techniques" at IIT Bhubaneswar	FDP, July 2021
105.	Modelling of microstructure evolution in manufacturing processes	Dr. Anirban Bhattacharya	Advancement in Manufacturing Processes and Techniques, 2021	AICTE-QIP-STC
106.	CFD Modeling of Micro-scale Solidification & Microstructure Evolution		Learning CFD/HT through Industry Relevant Problems, 2021	AICTE-TEQIP
107.	Pore-scale CFD Modeling of PCM-Metal Foam Energy Storage Systems		Learning CFD/HT through Industry Relevant Problems, 2021	AICTE-TEQIP
108.	Introduction to bio Heat Transfer		iW-RTA, IIT BBSR	
109.	Conjugate Heat Transfer in Enclosures		SMS, IIT BBS	
Scho	ol of Minerals, Metallurgical and N	-	g	
110.	Nanostructured thermoelectric Materia	Dr. Sivaiah Bathula	International E–Conference On Advances In Nanotechnology (ANT- 2021) 24 <sup>th</sup> –25 <sup>th</sup> September–2021	Invited lecture
111.	Fundamentals of crystallography	Dr. Amritendu Roy	Nanomaterials and their Green Applications, at NITTTR Chandigarh March 28, 2022	
112.	Essential crystallography for engineers -I and II	Dr. Amritendu Roy	Essential Materials Chemistry for Engineers' at NITTTR Chandigarh January 03, 2022 to January 07, 2022	
113.	Fundamentals of crystallography-I & II	Dr. Amritendu Roy	Online Short-Term Course on 'Essential Materials Physics for Engineers' at NITTTR Chandigarh, December 27, 2021 to December 31, 2021	
114.	Future of manufacturing high-end 2D functional materials	Dr. Kisor K. Sahu	2021	
115.	A hybrid DFT-machine learning protocol	Dr. Kisor K. Sahu	2021	
116.	Kinetics of corrosion	Dr. Srikant Gollapudi	Short term course on	
117.	Grain size and grain boundary misorientation distribution effects on thermal stability of nanocrystalline materials		NMD-ATM 2021	

S. N.	Title of Lecture/ Presentation	Author(s)	Conference Name, Year, Duration, Place	Remarks
118.	An overview of Powder Materials and Processing	Dr. Srikant Gollapudi	STC on Advancement in Manufacturing processes and Techniques	
119.	Shape memory alloys	Dr. Srikant Gollapudi	QIP short term course on Advances in Energy and Functional Materials	

## Seminar/ Conference / Workshop Attended by Faculty

S. N.	Name	Title	Da	tes	Place	Remarks
			From	То		
Schoo	ol of Basic Sciences					
1.	Dr. Sasmita Barik	International Conference on Linear Algebra and its Applications (ICLAA 2021)	15-12-2021	17-12-2021	Manipal University, Manipal	Online
2.	Dr. Ashis Biswas	44 <sup>th</sup> Indian Biophysical Society Meeting (Conceptual Advances in Biophysics and its Applications)	30-03-2022	01-04-2022	ACTREC, Tata Memorial Centre, Navi Mumbai	Chaired the session & Acted as a judge to evaluate a poster session
3.	Dr. Akhilesh Kumar Singh	Recent Advances in Inorganic Chemistry	25-03-2022	26-03-2022	IIT Bhubaneswar	Invited Talk
4.	Dr. Akshay Kumar Ojha	49 <sup>th</sup> Annual conference of Orissa Mathematical Society	26-03-2022	27-03-2022	P.G Department of Mathematics, Utkal University, Vanivihar	
5.	Dr. Pramod Padmanabhan	String Meeting@IOP	25-03-2022	25-03-2022	Bhubaneswar	
6.	Dr. Kousik Samanta	Theoretical chemistry symposium 2021	11-12-2021	14-12-2021	IISER Kolkata	
7.	Dr. Chandrasekhar Bhamidipati	Indian Strings Meeting 2021	12-12-2021	17-12-2021	IIT Roorkee	Online
Schoo	ol of Electrical Science	s				
8.	Dr. Joy Chandra Mukherjee	COMSNETS	08-01-2021	11-01-2021		
9.	Dr. Dipankar De	Reduced DC Voltage Fed Grid Connected Transformer-less Shunt Compensator with AC- Side Impedance-Source Configuration	13-10-2021	16-10-2021	Toronto, ON, Canada	Virtual Mode
10.	Dr. Srinivas Boppu	VDAT 2021	16-09-2021	18-09-2021	MINT, Surat	Online
11.	Dr. Srinivas Pinisetty	ACM Symposium on Applied Computing	22-03-2021	26-03-2021		
12.	Dr. Srinivas Pinisetty	19 <sup>th</sup> ACM-IEEE International Conference on Formal Methods and Models for System Design	20-11-2021	22-11-2021		
13.	Dr. Srinivas Pinisetty	19 <sup>th</sup> IEEE International Conference On Software Architecture	12-03-2022	15-03-2022		

S. N.	Name	Title	Da	tes	Place	Remarks
			From	То		
14.	Dr. Anoop Thomas	2021 IEEE Information Theory Workshop (ITW 2021)	17-10-2021	21-10-2021	Japan	Attended Virtually
15.	Dr. Srinivas Bhaskar Karanki	10 <sup>th</sup> National Power Electronics Conference	15-12-2021	17-12-2021	Bhubaneswar	Papers Presented
16.	Dr. Srinivas Bhaskar Karanki	2021 IEEE 12 <sup>th</sup> Energy Conversion Congress & Exposition-Asia (ECCE- Asia)	24-05-2021	27-05-2021	Singapore (Online)	Papers Presented
17.	Dr. Srinivas Bhaskar Karanki	The UK - India Joint Virtual Clean Energy Centre (JVCEC)	24-02-2022	25-02-2022	UK (Online)	Paper Presented
18.	Dr. Niladri Bihari Puhan	IEEE International Symposium on Biomedical Imaging (ISBI)	28-03-2022	31-03-2022	Online	
19.	Dr. Niladri Bihari Puhan	24 <sup>th</sup> IEEE International Conference on Intelligent Transportation Systems - ITSC2021	19-09-2022	22-09-2021	Online	
20.	Dr. Niladri Bihari Puhan	VISAPP 2022 : 17 <sup>th</sup> International Conference on Computer Vision Theory and Applications	06-02-2022	08-02-2022	Online	
Schoo	l of Earth, Ocean and	Climate Sciences				
21.	Dr. Sandeep Pattnaik	India Radar Meteorology 5 <sup>th</sup> Conference iRAD2022	09-01-2022	11-05-2022	IIT Bhubaneswar	
22.	Dr. Sandeep Pattnaik	INTROMET 2021	23-11-2021	26-11-2021	Cochin University of Science and Technology	
23.	Dr. Debadatta Swain	Indian Space Program Journey since Independence	26-10-2021	26-10-2021	Online	organised by IIRS/ ISRO
24.	Dr. Debadatta Swain	IEEE GRSS Distinguished Lecturer Program	11-08-2021	11-08-2021	Online	organised by IEEE & MIT Lincoln Laboratory, USA
25.	Dr. Debadatta Swain	Two-Day Workshop on Data Science and Curation: Spatial Data Science	24-06-2021	25-06-2021	Hybrid mode	organised by Technology Innovation Hub Indian Statistical Institute, India
26.	Dr. Debadatta Swain	International Climate Summit 2021 - Powering India's Hydrogen Ecosystem	03-09-2021	03-09-2021	Hybrid mode	organised by PHD Chamber of Commerce and Industry
Schoo	l of Infrastructure					
27.	Dr. B. Hanumantha Rao	RAiSE2022	22-02-2022	26-02-2022	Uttar Pradesh	
28.	Dr. B. Hanumantha Rao	IGC2021	16-12-2021	18-12-2021	NIT Trichy	
29.	Dr. B. Hanumantha Rao	ICGE-Colombo-2020	06-05-2021	07-05-2021	Sri Lanka	

S. N.	Name	Title	Da	tes	Place	Remarks
			From	То		
30.	Dr. Mayank Mishra	International Summer School, Digital Strategies for Endangered Cultural Heritage INTERSPECIES 6 <sup>th</sup> - 11 <sup>th</sup> September, online (ZOOM platform) University of Pavia (ITALY) 2021.	06-09-2021	11-09-2021	Online Medium	
31.	Dr. Mayank Mishra	6 <sup>th</sup> international course on Seismic Analysis of Structures using OpenSees, July 19 <sup>th</sup> -22 <sup>nd</sup> University of Palermo (online platform) 2021.	19-07-2021	22-07-2021	University of Palermo (online platform) 2021.	
32.	Dr. Rajesh Roshan Dash	Advances in Energy, Environment for Sustainable Development (AEESD 2022)	07-01-2022	08-01-2022	Online/India	Delivered Expert Lecture
33.	Dr. Arindam Sarkar	HYDRO-2021 - 26 <sup>th</sup> International Conference on Hydraulics, Water Resources and Coastal Engineering	23-12-2021	25-12-2021		Online
34.	Dr. Arindam Sarkar	EMLIH-2021	13-04-2021	15-04-2021		Online
35.	Dr. Meenu Ramadas	IAHR Global Water Security Working Group 4 <sup>th</sup> Webinar on The Challenges of Global Water Security: Linking Policy to Water Solutions	09-06-2021	09-06-2021	Online	The webinar was organized by International Association for Hydro- Environment Engineering and Research (IAHR)
36.	Dr. Meenu Ramadas	EGU General Assembly 2021	19-04-2021	30-04-2021	Online	
Schoo	ol of Humanities, Socia	al Sciences & Management				
37.	Dr. Dukhabandhu Sahoo	UGC-SAP International Seminar on Development Cooperation between India & Neighbouring Countries: Possibilities and Challenges	22-03-2022	24-03-2022	Tripura University, Agartala, India	Attended Online
38.	Dr. Dukhabandhu Sahoo	Quarterly Review of the Economy, 2021-22:Q1 in Coronavirus Times	25-06-2021	25-06-2021	NCAER, New Delhi	Attended Online
39.	Dr. Dukhabandhu Sahoo	Report on Global Economic Prospects, January 2022	24-02-2022	24-02-2022	NCAER, New Delhi	Attended Online
40.	Dr. Dukhabandhu Sahoo	Strategy to Bring the Stakeholders Together to Cooperate in the Business: A Game- Theoretic Approach	28-03-2022	29-03-2022	Mysore, India	Attended Online

S. N.	Name	Title	Da	tes	Place	Remarks
			From	То		
41.	Dr. Rajakumar Guduru	"International Conference on Education, Technology, and Social Sciences (ICETSS) 2022" with theme "Human Capital in Facing New Paradigm of Industrial Revolution 4.0	25-03-2022	26-03-2022	Online	
42.	Dr. Rajakumar Guduru	Climate Governance Certificate Workshop	14-11-2021	14-11-2021	Online	
43.	Dr.Madhusmita Dash	International conference on "Environmental Challenges and Agricultural Sustainability in Asia: Inter linkages and future implications	08-12-2021	10-12-2021	Asian Development Bank Institute (ADBI), Tokyo, Japan	Resource person and Discussant of a session
44.	Dr.Madhusmita Dash	International conference Building Alternative Livelihoods in times of ecological and political crisis	05-07-2021	08-07-2021	University of Manchester, UK	Presented a Paper entitled
45.	Dr.Madhusmita Dash	Ministry Training programme on "Biodiversity Conservation and Livelihoods"	25-11-2021	26-11-2021	Ministry of Environment, Forests and Climate Change (MoEF), Govt. of India	
46.	Dr. Amrita Satapathy	Towards Gender Equality: Overcoming Structural Barriers and Reclaiming Agency'	28-10-2021	29-10-2021	Jagran Lakecity University, Faculty of Liberal Arts and Humanities, New Delhi	Paper Presenter
Schoo	ol of Mechanical Scien	ces				
47.	Dr. Satyanarayan Panigrahi	Roadmap to Deal with Issues Concerning Drones	27-04-2022	27-04-2022	Bhubaneswar	
Schoo	ol of Minerals, Metallu	rgical and Materials Engine	ering			
48.	Dr. Sivaiah Bathula	Science, Technology and Innovation: Key Drivers for Aatmanirbar Bharat	23-12-2021	23-12-2021	Online mode	Attended the Webinar
49.	Dr. Sivaiah Bathula	Symposium on Steel	28-04-2021	28-04-2021	Online mode	Attended the Symposium on International Steels Safety Day
50.	Dr. Sivaiah Bathula	Recent Trends In Metal 3d Printing And It's Industrial Applications (RTM3DPIA2021)	17-11-2021	17-11-2021	Online mode	Attended the Webinar

## Seminars / Conferences / Workshops/ Symposiums Organized

S. N.	Title	Organized	Da	tes	Place	Remarks
			From	То		
Schoo	l of Basic Sciences					
1.	Webinar on Empowering Woman at the Workplace	Workshop	29-12-2021	29-12-2021	IIT Bhubaneswar	
2.	Foreign faculty programme (IIT-Bhubaneswar)	Workshop	11-11-2021	18-11-2021	IIT-Bhubaneswar	WKB approximation: Quantum mechanics and beyond (3 lectures by Dr. Gregory Kozyreff from University Libre de Bruxelles)
3.	Recent Advanced in Inorganic Chemistry	Workshop	25-03-2022	26-03-2022	IIT Bhubaneswar	Online
4.	One of the organizers of Teachers' Enrichment Workshop on Complex Analysis and Number Theory	Seminar	18-12-2021	31-12-2021	Online-IIT Bhubaneswar	This was an ATM School funded by the National Centre for Mathematics
5.	Random matrices and Number Theory	Seminar	30-10-2021	06-11-2021		
6.	Introduction to Domain Decomposition Methods by Prof. Martin Gander of University of Geneva	Seminar	21-10-2021	05-11-2021	IIT Bhubaneswar	online lecture series
7.	Indian Strings Meeting 2021	Conference	15-12-2021	15-12-2021	IIT Roorkee (Online)	Chaired a Session
8.	Chaotic linear transformations	Symposium	15-09-2022	15-09-2022	SOA, Bhubaneswar	Invited Talk
Schoo	l of Electrical Sciences					
9.	10 <sup>th</sup> National Power Electronics Conference (IEEE)	Conference	15-12-2021	17-12-2021	IIT Bhubaneswar	Organizing Chair (97 papers, 6 Tutorials and 4 Keynote speakers from National and International)
Schoo	l of Earth, Ocean and Climate	Sciences				
10.	India Radar Meteorology 5 <sup>th</sup> Conference iRAD2022	Conference	09-01-2022	11-01-2022	IIT Bhubaneswar	
11.	SAR Application for flood hazard mapping and monitoring	Workshop	14-07-2021	14-07-2021	Online	1017 <sup>th</sup> IIRS/ISRO programme, coordinator for Bhubaneswar region
12.	Geospatial Modeling Driven Urban Hazard and Risk Analysis	Workshop	01-12-2021	01-12-2021	Online	1019 <sup>th</sup> IIRS/ISRO programme, coordinator for Bhubaneswar region
Schoo	l of Infrastructure					
13.	Advances in Pavement Engineering	Workshop	24-05-2021	28-05-2021	IIT Bhubaneswar	Online

S. N.	Title	Organized	Da	tes	Place	Remarks
			From	То		
14.	Data-Driven And Stakeholder Centered Adaptive Management of Food, Energy, And Water (Few) Nexus	Workshop	28-02-2022	04-03-2022	IIT Bhubaneswar	Virtual workshop under the aegis of SPARC- Ministry of Education, Govt. of India, and attended by over 25 participants.
15.	Advances in Pavement Engineering	Seminar	24-05-2021	28-05-2021	IIT Bhubaneswar	AICTE sponsored
16.	Data-driven and stakeholder centered adaptive management of food, energy, and water (FEW) nexus	Workshop	28-02-2022	03-03-2022	IIT Bhubaneswar	Online
17.	Design of landfills and waste containment systems	Seminar	05-07-2021	09-07-2021	IIT Bhubaneswar	sponsored by AICTE
18.	Advances in Pavement Engineering	Seminar	24-05-2021	28-05-2021	IIT Bhubaneswar	AICTE-QIP sponsored
Schoo	ol of Humanities, Social Scienc	es & Managem	ient			
19.	Convener of an International Webinar on "Passionate Teaching: A strategy for awakening thinking among ESLers	Seminar	11-11-2021	11-11-2021	IIT Bhubaneswar	
20.	A Renewed Perspective to Language Teaching on par with Industrial Revolution 4.0	Seminar	25-10-2021	29-10-2021	Tamil Nadu	
21.	National Webinar on "Essentials of Effective Presentation Skills" organized the Department of English, KL University, Vijayawada, Andhra Pradesh	Seminar	25-09-2021	25-09-2021	Vijayawada	
22.	Webinar on "Soft Skills for Strengthening Tomorrow's Ambition"	Seminar	09-10-2021	09-10-2021	Tenali, Andhra Pradesh	
23.	A webinar titled "English for Academic Research Papers: Writing clearly, concisely and precisely"	Seminar	13-08-2021	13-08-2021	Hyderabad	
24.	A webinar on "Understanding Inclusive Education as a Transnational Concept"	Seminar	18-06-2021	18-06-2021	IIT Bhubaneswar	
25.	One- Day National Webinar on "Learning Pronunciation for Language Fluency"	Seminar	10-06-2021	10-06-2021	Vignan Institute of Technology and Science, Hyderabad	
26.	ELTAI Webinar 53 on "Soft Skills: Building Tomorrow's Talent"	Seminar	16-05-2021	16-05-2021	Chennai	

S. N.	Title	Organized	Da	tes	Place	Remarks
		-	From	То		
27.	ICBEST 2022 Internationa Conference, Committee Member	Conference	17-09-2021	17-12-2022	Online	
28.	Coordinator of National Seminar on Sun Worship	Seminar	29-12-2021	31-12-2021	IIT Bhubaneswar	
29.	National Seminar History Heritage on Sun Worship	Seminar	26-12-2021	28-12-2021	SHSS&M, IIT BBSR	
Schoo	ol of Mechanical Sciences					
30.	5 <sup>th</sup> Conference on India Radar Meteorology	Conference	09-01-2022	11-01-2022	IIT Bhubaneswar	General Chair
31.	How to start an enterprise	Workshop	05-02-2022	05-02-2022	IIT Bhubaneswar (online)	For stdeunts of insitute and outside more than 1000 participants
32.	iW-RTA, International Online Workshop	Workshop	21-01-2022	22-01-2022	SMS, IIT Bhubaneswar	8 Foreign Professor, % medical Professors & 9 Professors from IITs have delivered lectures and attended by 100 particpants
33.	Advancement in Manufacturing processes and Techniques	Seminar	12-07-2021	16-07-2021	Online	AICTE sponsored short term course
34.	Computational Fracture Mechanics	Seminar	24-05-2021	04-06-2021	SMS, IIT Bhubaneswar	AICTE scheme of Quality Improvement Program
35.	Welding and fabrication of high strength steels for modern power plants	Seminar	21-06-2021	25-06-2021	IIT Bhubaneswar	One week FDP
Schoo	ol of Minerals, Metallurgical a	nd Materials Eng	gineering			
36.	Advances in Energy and Functional Materials	Workshop	21-06-2021	22-06-2021	Bhubaneswar	
37.	Corrosion and Surface Engineering for Aerospace and other applications	Symposium	19-03-2021	20-03-2021	IIT BBS	
38.	IIT BBSR - Tata Steel :Joint One Day symposium on Steel	Symposium	28-04-2021	28-04-2021	Online, IIT Bhubaneswar	

## **Institute Seminars**

S. N.	Title of the talk	Speaker	Date
1.	Creating Market Driven and Technology led Social Impact Enterprises	Shri Ashok Madhukar (Chairman- Emeritus with Madhukar Livelihood Foundation)	14-06-2021
2.	The Unsung Heroes of India's Freedom Movement	Commander V. K. Jaitly (IIT KGP Alumnus, INS (Retired), Author of Book-We Can!)	25-08-2021
3.	Cyber Security Awareness	Prof. Manindra Agrawal, IIT Kanpur (Padma Shri)	28-10-2021
4.	Emerging viral infections: New frontiers and challenges	Dr Atanu Basu (Joint Director, Electron Microscopy and Pathology Group, National Institute of Virology, Pune)	13-11-2021
5.	Ayurveda for Improving the Quality of Life	Dr. M. M. Rao, Director of Central Council for Research in Ayurvedic Sciences (an autonomous body of the Ministry of AYUSH	17-03-2022

S. N.	Title of the talk	Speaker	Date
6.	Know your National heritage to strengthen the National security	Prof. G. S. Murthy (Former Director School of Chemistry, Andhra University)	21-03-2022
7.	Indo-Tibet Relationship Through Ages	Shri Acharya Yeshi Phuntsok (former Deputy Speaker for the 16 <sup>th</sup> Tibetan Parliament in exile)	22-03-2022
8.	Climate change and extreme events	Dr. Sandeep Pattnaik	06-01-2022
9.	Climate change and extreme events	Dr. Sandeep Pattnaik	29-07-2021
10.	Cooperative Control of Photovoltaic Systems	Dr. Chandrasekhar N. Bhende	17-12-2021
11.	Al Based Condition Monitoring of Electrical Systems	Dr. Chandrasekhar N. Bhende	03-02-2022
12.	Analysis of Advanced Space Vector PWM Techniques Extended to Over-Modulation Region for Induction Machine Drive	Burle Tulasi Rao, Ph.D scholar	03-01-2022
13.	Reduced DC Voltage Fed Grid Connected Transformer-less Shunt Compensator with AC- Side Impedance-Source Configuration	Dr. Dipankar De	15-10-2021
14.	Integration of Active Filter to the Grid at Reduced DC Voltage with Suppressed Leakage Current and Minimal Switches		15-10-2021
15.	Modeling and Mitigation of Transformer Saturation in Dual-Active-Bridge Converter	Abinash Dash, Ph.D scholar	25-05-2021
16.	A Process Scalable Architecture for Low Noise Figure Sub-Sampling Mixer-First RF Front-End	Dr. Vijaya Sankara Rao Pasupureddi	22-05-2021
17.	A 2^7-1 Low-Power Half-Rate 16-Gb/s Charge- Mode PRBS Generator in 1.2V, 65 nm CMOS	Dr. Vijaya Sankara Rao Pasupureddi	06-07-2021
18.	Enforcing Data Security in Cloud using Advanced Cryptosystems	Dr. Padmalochan Bera	14-11-2021
19.	Intelligent Intrusion Detection Systems for Smart Grid Applications	Kamalakanta Sethi, Ph.D scholar	14-06-2021
20.	Broadband CMOS RF Logarithmic Power Detector for sub-6 GHz 5G Applications	Shubham Tirmanwar, Ph.D scholar	16-09-2021
21.	Recent Technological Development In Electric Vehicle (Ev) System And Its Applications In Defence	Dr. Chandrasekhar Perumalla	09-07-2021
22.	Power quality issues in grid connected electric vehicles	Dr. Chandrasekhar Perumalla	15-03-2022

## Faculty Awards / Honours/ Distinction / Fellowships / Industry Internships / Scholarships / Memberships

S. N.	Faculty Name	Details of the Awards/Honours/Fellowship	Remarks
Schoo	l of Basic Sciences		
1.	Dr. Sasmita Barik	Chebyshev Grant, ICM-2022, from International Mathematical Union (IMU)	
2.	Dr. Sasmita Barik	Associate Editor, SIAM Undergraduate Research Online (SIURO), 2021-23	
3.	Dr. Abhijit Datta Banik	Associate Editor of the journal ``Queueing Models and Service Management"	nil
4.	Dr. Abhijit Datta Banik	Project grant approved from SERB, DST, New Delhi, India	
5.	Dr. Shyamal Chatterjee	Applied for Fulbright Nehru Fellowship	

S. N.	Faculty Name	Details of the Awards/Honours/Fellowship	Remarks
6.	Dr. Ashis Biswas	Member of the Board of Studies, Dept. of Biotechnology, Haldia Institute of Technology, Haldia, West Bengal	
7.	Dr. Akhilesh Kumar Singh	Best Poster Award to my student, Mr. Suvam Kumar Panda" in Chemical Science on Sustainable Development with Women Empowerment, held on 2 <sup>nd</sup> - 3 <sup>rd</sup> March 2022 at KIIT University organized by Indian Science Congress Association, Bhubaneswar Chapter.	
8.	Dr. Vasudeva Rao Allu	Selected for Chebyshev Grant from International Congress of Mathematicians 2022	
9.	Dr. Vasudeva Rao Allu	Editor of the Journal of Mathematical Inequalities (2021)	
10.	Dr. Rajan Jha	SERB STAR Fellowship (Physical Sciences)	
11.	Dr. Rajan Jha	Associate Editor IEEE Sensors Journal	
12.	Dr. Rajan Jha	Top 2% scientist of the Standford	
Schoo	ol of Electrical Sciences		
13.	Dr. Subhransu Ranjan Samantaray	SERB Science and Technology Award for Research (STAR) Award	The support includes fellowship of Rs. 15,000/- per month, research grant of Rs. 10 lakh per annum and Rs.1 lakh per annum as overhead charges for a period of three years.
14.	Dr. Subhransu Ranjan Samantaray	Director's Commendation for Outstanding Research	
15.	Dr. Subhransu Ranjan Samantaray	OPTCL Chair Professor	
16.	Dr. Siddhartha S. Borkotoky	Teaching Excellence Award, IIT Bhubaneswar	
17.	Dr. Vijaya Sankara Rao Pasupureddi	IEEE Senior Member	Senior Member is the highest professional grade of IEEE
18.	Dr. Srinivas Bhaskar Karanki	Teaching Excellence award for Large Class -2022	
19.	Dr. Srinivas Bhaskar Karanki	Best paper award for 1 <sup>st</sup> International Conference on Power Electronics and Energy for the paper title "Grid Integration of Single Phase a Reduced Switch Multilevel Inverter Topology" Authors: Pratik kumar Kar, Anurag Priyadashi, Srinivas Bhaskar Karanki.	
20.	Dr. Soumya Prakash Dash	Young Scientist Award 2021	Awarded for research carried out and presented in the International Scientist Awards on Engineering, Science and Medicine, organized by VDGOOD Professional Association.
21.	Dr. Debapratim Ghosh	Elected as Affiliate Member, Technical Committee-3 (RF/microwave measurements committee), IEEE Microwave Theory and Techniques Society	
22.	Dr. Nijwm Wary	Institute Best Teaching Award, IIT Bhubaneswar	

S. N.	Faculty Name	Details of the Awards/Honours/Fellowship	Remarks
Scho	ol of Earth, Ocean and Clin	nate Sciences	
23.	Dr. Debadatta Swain	Outstanding Paper Award by Committee on Space Research (COSPAR), France	The paper published by Jangir, B., D. Swain* and S. K. Ghose (2021) in the Journal "Advances in Space Research) and titled "Influence of Eddies and Tropical Cyclone Heat Potential on intensity changes of Tropical Cyclones in the North Indian Ocean [DOI: 10.1016/j.asr.2020.01.011]" has been selected for the above award.
24.	Dr. Debadatta Swain	<ol> <li>Vice Chair, IEEE Geoscience &amp; Remote Sensing Society, Kolkata Chapter</li> <li>Secretary, Forum for River &amp; Ocean Scientists &amp; Technologists</li> <li>General Member, Indian Radio Science Society (InRaSS)</li> </ol>	Chaired a Technical Session in 2021 IEEE Workshop on "Spatial Geoinformatics using Machine Learning Approaches"
25.	Dr. Syed Hilal Farooq	UNESCO Fellowship to attend World Geothermal Congress	Held in Iceland during 24-27 Oct 2021, Chaired a session in World Geothermal Congress, Iceland
26.	Dr. Syed Hilal Farooq	DAAD Fellowship	Duration 2 months (26.5.2022 - 24.5.2022)
Scho	ol of Infrastructure		
27.	Dr. Jothi Saravanan Thiyagarajan	Invited Speaker - The 7 <sup>th</sup> Asian Conference on Mechanics of Functional Materials and Structures (ACMFMS 2020+1), Tohoku, Japan.	
28.	Dr. Jothi Saravanan Thiyagarajan	Best Researcher Award under the International Scientist Awards on Engineering, Science and Medicine by VDGOOD Professional Association, India	
29.	Dr. Jothi Saravanan Thiyagarajan	Selected as one among the six Participants for the theme "Infrastructure & Unconventional Energy" at 15 <sup>th</sup> National Frontiers of Engineering Symposium (NatFoE-2021), an annual flagship event of the Indian National Academy of Engineering (INAE)	
30.	Dr. Jothi Saravanan Thiyagarajan	Early Career Advisory Board of (a) Measurement and (b) Measurement: Sensors Journals (Elsevier).	
31.	Dr. Remya Neelancherry	Innovation Award, NTPC Green charcoal Hackathon 2021 for designing microwave torrifier for rapid conversion of waste biomass to biofuel.	
32.	Dr. Remya Neelancherry	Women Researcher Award in the International Scientist Awards on Engineering, Science and Medicine, held on 04 & 05-Dec-2021, Visakhapatnam, India, Organized by VDGOOD Professional Association	
33.	Dr. Remya Neelancherry	Member, National knowledge network on National clean air programme	
34.	Dr. B. Hanumantha Rao	Selection of product in ALL IIT R&D Fair 2021	Novel technology developed on "Geopolymer concrete product with industrial wastes" stood among one of the top innovative projects (out of 77) in ALL IIT R&D Fair 2021.

S. N.	Faculty Name	Details of the Awards/Honours/Fellowship	Remarks
35.	Dr. Manaswini Behera	Received the Odisha Young Scientist Award in the category of Engineering and Technology for the year 2019 from the Honourable minister of Science and Technology, Govt. of Odisha on 4 <sup>th</sup> May 2022. This award is conferred by Odisha Bigyan Academy, Department of Science and Technology, Govt. of Odisha in recognition of original and creative research in the state of Odisha	The award investiture ceremony was held on 4 <sup>th</sup> May 2022
36.	Dr. Mayank Mishra	Marie Curie Fellowship; Awarded March 2022	Marie Skłodowska-Curie Actions grant under Horizon Project for grant amounting to €172,618. Result declared 25 March 2022
37.	Dr. Umesh Chandra Sahoo	Member of the Executive Committee, National Rural Infrastructure Development Agency (NRIDA), Ministry of Rural Development, Govt. of India.	
38.	Dr. Umesh Chandra Sahoo	Coordinator, PTA for technical approval of projects under PMGSY for states of Jharkhand, Chhattisgarh and Odisha.	
39.	Dr. Umesh Chandra Sahoo	Member (Academic), Academy of Pavement Science and Engineering (APSE)	
40.	Dr. Umesh Chandra Sahoo	Member, Flexible Pavement Committee (H-2), Composite Pavement Committee (H-9) and Rural Roads Committee (H-5) of Indian Roads Congress for the period 2021-23.	
41.	Dr. Debasis Basu	Acted as Chair of the Scientific Committee called Transport Planning, Policy, Economics and Project Finance for the Conference for Transportation Research Group of India (CTRG), 2021, Trichy.	
42.	Dr. Meenu Ramadas	Roorkee Water Conclave 2022 Best Paper Award (Third Prize)	Third Prize (cash prize of 5000 INR) was won by the paper "Comparison of state-of-the-art regionalization techniques coupled with SWAT for predicting streamflow in ungauged watersheds in Eastern India" submitted by authors: Ankita Manekar and Dr. Meenu Ramadas at the Roorkee Water Conclave 2022 held during March 02- 04, 2022 in hybrid mode.
43.	Dr. Anush Konayakanahalli Chandrappa	Nominated as Academic Editor and Editorial Member for the Journal "Advances in Civil Engineering" by Hindawi	
44.	Dr. Rajesh Roshan Dash	Member, ASCE	
45.	Dr. Arindam Sarkar	Member, State level Steering Committee (SLSC) for implementation of World Bank Assisted National Hydrology Project, Government of Odisha	
46.	Dr. Arindam Sarkar	Member, Core-Group Committee on Benchmarking of Irrigation Projects, Department of Water Resources, Government of Odisha	
47.	Dr. Sumanta Haldar	Received Prime Minister's Research Fellowship (PMRF) by a doctoral student under my supervision on the Development of Design Strategy of Floating Offshore Wind Turbines on the West Coast of India under Climate Change Scenarios	

S. N.	Faculty Name	Details of the Awards/Honours/Fellowship	Remarks
48.	Dr. Partha Pratim Dey	Member of H-1 Committee, Transport Planning & Traffic Engineering, Indian Roads Congress, New Delhi, 2021-2023	
49.	Dr. Partha Pratim Dey	Independent Director, Odisha State Road Transport Corporation, Bhubaneswar. (Sept, 2021 to)	
Schoo	ol of Humanities, Social Sci	iences & Management	
50.	Dr. Rajakumar Guduru	"2022 Betty Azar Travel Grant for Practicing ESL/EFL Teachers" - Awarded by the TESOL International Association - Received \$US1,500 for attending the TESOL 2022 International Convention & English Language Expo, Pittsburgh, PA, USA, 22-25 March.	
51.	Dr. Rajakumar Guduru	Award for Teaching Excellence, Academic Year 2021.	
52.	Dr. Punyashree Panda	Shastri Indo-Canadian Institute Conference and Lecture Series Grant 2022	Conducted a Virtual International Symposium under the prestigious Shastri Indo-Canadian Institute Conference and Lecture Series Grant 2022
53.	Dr. Madhusmita Dash	Resource person and Discussant of a session at the International conference on "Environmental Challenges and Agricultural Sustainability in Asia: Inter linkages and future implications", hosted by Asian Development Bank Institute (ADBI), Tokyo, Japan, held during 8-10 December, 2021.	
54.	Dr. Madhusmita Dash	Young Social Scientist award by the Ministry of Statistics and Programme Implementation (MoSPI), Government of India, in collaboration with United Nations Statistics Division (UNSD), European Union, UN Environment Programme (UNEP) and Ministry of Environment Forest and Climate Change (MoEFCC) during "Natural Capital Accounting and Valuation of Ecosystem Services (NCAVES) India Forum".	
Schoo	ol of Mechanical Sciences		
55.	Dr. V. Pandu Ranga	Bronze medal for the paper presented by my PhD student (Priyaranjan Samal)	Bronze medal for the paper presented by my PhD student (Priyaranjan Samal) at ICMPC held at Hyderabad
56.	Dr. B. Pattabhi Ramaiah	Editorial board member, International Journal of Computational Methods, Impact factor 2.193	From March 2021 on-wards
57.	Dr. Venugopal Arumuru	Receiving the prestigious SERB International Research Experience (SIRE) fellowship to work with Prof. Steffen Hardt at Institute for Nano- and Microfluidics, Technical University Of Darmstadt Germany.	
Schoo	ol of Minerals, Metallurgica	I and Materials Engineering	
58.	Dr. Kisor Kumar Sahu	Editorial board member, Scientific Reports (Nature publishing group)	

## Awards/ Honours for Staff Members

S. N.	Staff Name	Details of the Awards/ Honours/ Fellowship	Remarks
1.	Dr. Mansoor Ahmed Khan, Medical Officer and the team Medical Unit	Director's Commendation for Meritorious Services	On the occasion of the 14 <sup>th</sup> Foundation day of the Institute
2.	Shri Pradip Kumar Poddar		
З.	Shri Ajaya Kumar Kandi		

### **Awards and Achievements of Students**

- Mr. Nikhil Kumar Sharma, Ph.D. research scholar from the School of Electrical Sciences been selected for the Typhoon HIL Dissertation Awards-2021 in Doctoral Category.
- Ms. Shilpi Ruchi Kerketta, Ph.D. Research Scholar from the School of Electrical Sciences achieved the best student paper award at the conference IEEE APSYM 2020 held on virtual platform organized by CUSAT.

## **Distinguished Visitors (Online/ In-person)**

S. N.	Date	Name of the Event	Distinguished Visitor	Designation and Name of the University
1.	01.04.2021 to 04.04.2021	Wissenaire'21	Dr. V.K Aatre	Former Director-General, Secretary, Department of Defence R&D, Defence Research and Development Organization (DRDO)
2.	09-04-2021 to 10.04.2021	Two day Workshop, Hackathon and Start-up Colloquium on Virtual and Augmented Reality in Hybrid mode	Dr. Omkar Rai	Director General, STPI
3.	15.04.2021 to 18.04.2021	ALMA FIESTA'21, Chief Guest	Smt. Anuradha Acharya	Founder and CEO of Ocimum Bio Solutions and Mapmygenome
4.	24.05.2021 to	Advances in Pavement	Prof. A Veeraragavan	IIT Madras
5.	28.05.2021	Engineering	Mr. Sanjay Bajaj	Vice President, Wirtgen India
6.			Prof. M Amarnatha Reddy	IIT Kharagpur
7.			Dr. Kranti Kumar Kuna	IIT Kharagpur
8.			Dr.Krishna P. Biligiri	Asso.Prof., IIT Tirupati
9.			Dr. Ramya M	Asst.Prof., IIT Hyderabad
10.			Mr.Vishwas Kelkar	DGM, ICS, Ahmedabad
11.			Dr. Surya Sarat Chandra Congress	Texas A & M University, USA
12.			Dr. Yogesh Kumbargeri	EIT, Senior Staff Engineer, SME, Michigan
13.			Dr. Shashwat Sreedhar	EIT, Geodesign, Oregon
14.			Dr. Sushobhan Sen	University of Pittsburgh
15.			Dr. Deb Mishra	Oklahoma State University
16.			Dr.Veena Venudharan	Asst.Prof., IIT Palakkad
17.	24.05.2021 to	Stock Market, Portofolio	Dr. Shaliendra Kumar	IIIT Allahabad
18.	28.05.2021	Management and Trading	Dr. Pradiptarathi Panda	NISM Mumbai
19.			Mr. Prabhas Rath	SEBI
20.			Mr. Swarup Anad Mohanty	Mirae Asset Investment Management

S. N.	Date	Name of the Event	Distinguished Visitor	Designation and Name of the University
21.	24.05.2021 to	Computational Fracture	Dr. S. Nararajan	IIT Madras
22.	04.06.2021	06.2021 Mechanics	Dr. M. Agrawal	IIT Ropar
23.			Dr. P. Mastanaiah	DRDO
24.			Prof. P. K. Yalavarthy	Department of Computational and Data Science, Ilsc Bangalore
25.			Prof. X. Zhuang	Chair of Computational Science and Simulation Technology, Institute of Photonics, Leibniz University Hannover, Germany
26.	07.06.2021 to	Enhancing Communication,	Prof. Swarnalatha	IIT Madras
27.	11.06.2021	Empowering Technocrats	Prof. Manju Jaidka	Shoolini University
28.			Prof. Smeeta Mishra	XIMB Bhubaneswar
29.			Prof. Priyanka Tripathi	IIT PATNA
30.			Prof. Smriti Singh	IIT Patna
31.			Prof. Aradhna Malik	VGSOM, IIT Kharagpur
32.			Dr. Smrutisikta Mishra	NIT Pondicherry
33.			Prof. Madhusmita Pati	R D University, Bhubaneswar
34.			Prof. Shruti Das	Berhampur University, Berhampur
35.	07.06.2021 to	Learning CFD/HT through	Prof. G. Biswas	IIT Kanpur
36.	18.06.2021	5.2021 Industry Relevant Problems	Prof. P.K. Panigrahi	IIT kanpur
37.			Prof. T. Basak	IIT Madras
38.			Prof. Shanmugam Dhinakaran	IIT Indore
39.			Dr. Sofen Jena	Whirlpool India Pvt. Ltd.
40.			Prof. P. K. Senapati	IMMT, Bhubaneswar
41.	14.06.2021	Webinar on "Creating Market Driven and Technology led Social Impact Enterprises"	Shri Ashok Madhukar	Chairman, Emeritus with Madhukar Livelihood Foundation
42.	14.06.2021	Creating Market Driven and Technology led Social Impact Enterprises	Shri Ashok Madhukar	Chairman- Emeritus with Madhukar Livelihood Foundation
43.	14.06.2021 to 25.06.2021	Advances in Energy and Functional Materials	Dr. R. Gopalan	Regional Director, International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI)
44.			Dr. Mithun Palit	Scientist-F, Defence Metallurgical Research Laboratory, Hyderabad
45.			Prof. Ashish Garg	IIT Kanpur
46.			Prof. Rajeev Ranjan	IISc Bangalore
47.			Prof. Arun M Umarji	Ex-Professor, Materials Research Centre, Indian Institute of Science
48.			Dr. Ashok Kumar	Principal Scientist, CSIR- National Physical Laboraroty, New Delhi
49.			Dr. Koushik Das	IIEST Shibpur
50.			Prof. Brij Kumar Dhindaw	Ex-Professor, IIT KGP
51.			Dr. Surendra Martha	IIT Hyderabad
52.			Dr. L D Besra	Chief Scientist, CSIR-IMMT

S. N.	Date	Name of the Event	Distinguished Visitor	Designation and Name of the University
53.	14.06.2021 to	Digital Communication and	Prof. Vimal Bhatia	IIT Indore
55. 54.	25.06.2021		Dr. Rajesh A	IIT Guwahati
55.			Dr. Dharmendra Dixit	Rajkiya Engg. College, UP
56.			Dr. Udit Satija	IIT Patna
57.			Dr. Neminath	IIT Indore
58.			Dr. Jagadeesha R Bha	NIT Dharwad
59.	21.06.2021 to	Microwave and Photonics	Dr.Bijoy Krishna Das	Professor, IIT Madras
60.	25.06.2021	Devices and Modelling	Dr.Kirankumar Hiremath	Asso.Prof. IIT Jodhpur
61.		<u> </u>	Mr. Abhishek P Dholakiya	
62.			Dr.S K Varshney	Asso.Prof. IIT Kharagpur
63.	21.06.2021 to	Welding and Fabrication	Prof. G.D. Janaki Ram	IIT Hyderabad
64.	25.06.2021	of high strength steel for modern power plants	Dr. Chandan Pandey	IIT Jodhpur
65.	21.06.2021	7 <sup>th</sup> International Day of Yoga	Swami Achalananda Giri	Secretary and Administrator for Prajnana Mission
66.	22.06.2021 to	Software - defined Networks	Dr. Sateesh Peddoju	IIT Roorkee
67.	02.07.2021	and its applications	Dr.Hemant Rath	TCS Bangalore
68.			Dr. Bibhudatta Sahoo	NIT Rourkella
69.			Dr. Bighnaraj Panigrahi	TCS Bangalore
70.			Shameemraj Nadaf	TCS Bangalore
71.			Dr. Rashmi Ranjan Rout	NIT Warangal
72.			Dr. Dinesh Dash	NIT Patna
73.			Dr. Kshirsagar Sahoo	SRM University
74.	24.06.2021 to 30.06.2021	Advancements in Sustainable Waste Management	Prof. Brajesh Kumar Dubey	IIT Kharagpur
75.			Prof.Munish Chandel	IIT Bombay
76.			Prof.Thallada Bhaskar	Indian Institute of Petroleum, Dehradun
77.			Prof. Ajay Kalamdhad	IIT Guwahati
78.			Prof. M.M. Ghangrekar	IIT Kharagpur
79.			Dr.Atul N Vaidya	National Environmental Research Institute,Nagpur
80.			Prof. Tian Jhang	University of Nebraska- Lincoln
81.			Prof. Alberto Wisniewski Jr	Federal University of Sergipe, Brazil
82.			Prof. Po-Heng Lee	Imperial College London
83.			Prof. Babu Alappat	lIT Delhi
84.	05.07.2021 to	Design of Landfills and Waste	Prof. D.N.Singh	IIT Bombay
85.	09.07.2021	Containment Systems	Prof. GL Sivakumar Babu	IISc Bengaluru
86.			Prof. Sreedeep S	IIT Guwahati
87.			Dr.Ratnakar M	Meccaferri Ltd
88.			Dr.AN Vaidya	NEERI Nagpur
89.			Prof. SK Das	IIT (ISM) Dhanbad
90.			Prof. Krishna R. Reddy	University of Illinois, Chicago
91.			Prof. Ankit Garg	Shantou University

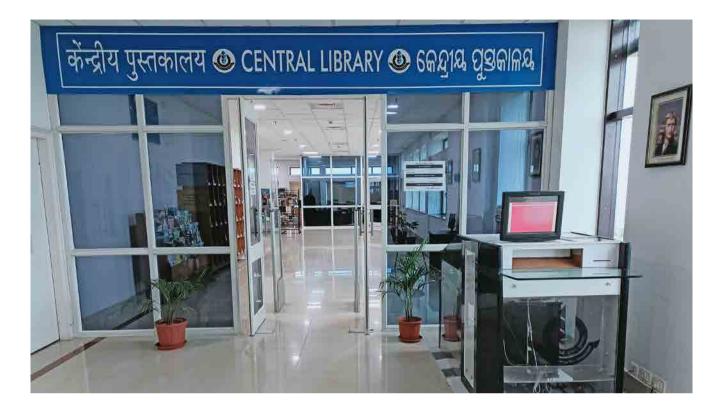
S. N.	Date	Name of the Event	Distinguished Visitor	Designation and Name of the University
92.	05.07.2021 to	Traffic Flow Modelling	Prof. K.Ramachandra Rao	IIT Delhi
93.	09.07.2021	07.2021	Prof. Manoranjan Parida	IIT Roorkee
94.			Dr. S.Gangopadhyay	President of IRF & Ex-Director of CRRI, New Delhi
95.			Prof. Tom V Mathew	IIT Bombay
96.			Prof. Akhilesh Maurya	IIT Guwahati
97.			Prof. Sudip Roy	IIEST Shibpur
98.			Dr.Gourab Sil	IIT Indore
99.			Dr. Malaya Mohanty	KIIT Bhubaneswar
100.			Dr.Smruti Mohapatra	IIT Dhanbad
101.	06.07.2021 to 10.07.2021	Advanced Applications in Signal Processing and	Prof. Samarendra Dandapat	IIT Guwahati
102.		Artificial Intelligence	Prof. Ram Bilas Pachori	IIT Indore
103.			Dr. Vivek Kanhangad	IIT Indore
104.			Dr. Neelam Sinha	IIIT Bangalore
105.			Prof. Ganapati Panda	CV Raman Global University
106.			Dr. Udit Satija	IIT Patna
107.	12.07.2021 to	Advancement in	Prof. Ashish K. Nath	IIT Kharagpur
108.	16.07.2021	6.07.2021 Manufacturing Process and Techniques	Dr. Manas Das	IIT Guwahati
109.			Dr. Rakesh G Mote	IIT Bombay
110.			Dr. Muvvala Gopinath	IIT Hyderabad
111.			Dr. Y. K. Madhukar	IIT Indore
112.	26.07.2021	AICTE Atal Faculty Development Programme on "Effective Team Work",	Shri Jaswinder S. Ahuja	Corporate Vice President, and Managing Director of Cadence Design Systems India
113.	26.7.2021 to	AICTE Atal Faculty	Prof. Anil Sahasrabudhe	Hon'ble Chairman, AICTE
114.	30.07.2021	Development Programme on Effective Team Work	Dr. Mamta Rani Agarwal	Adviser-I, ATAL Academy
115.	13.08.2021 to 14.08.2021	CPU-GPU Memory Systems: Optimization Opportunities	Prof. S. Ramesh	Global General Motors R&D, Warren, Michigan, USA
116.		and Verification Challenge	Prof. Madhu Mutyam	IIT Madras
117.			Dr. Swarup Mohalik	Ericsson Research, Bangalore
118.	20.08.2021	Inauguration of Pushpagiri Lecture Hall Complex and Rishikulya Halls of Residence	Shri Dharmendra Pradhan	Hon'ble Union Minister of Education, Ministry of Education, Govt. of India
119.	20.08.2021 and 25.12.2021	3-day National seminar on "History and Heritage of Sun Worship- Scientific and Religious Implications of Sun – The Centre of Solar- system" during December 26-28, 2021 in hybrid mode and naugurated the Pushpagiri Lecture Hall Complex and Rishikulya Halls of Residence	Shri Ranjan Kumar Mohapatra	Chairman, Skill Development Institute (SDI) and Director (HR), Indian Oil Corporation
120.	25.08.2021	The Unsung Heroes of India's Freedom Movement	Commander V. K. Jaitly	IIT KGP Alumnus, INS (Retired) and Chairman, C-cube Consultants, C_cube conducts Programs in Business Excellence

S. N.	Date	Name of the Event	Distinguished Visitor	Designation and Name of the University
121.	20.10.2021	10 <sup>th</sup> Annual Convocation	Shri NR Narayana Murthy	Founder & Chief Mentor, Infosys Technologies Limited
122.	22.10.2021	Invited lecture	Prof. Wang Yu	Professor, Dept. of Computer Sciences, Temple University, USA
123.	25.10.2021	Invited lecture	Prof. Alejandro Garces	Universidad Tecnológica de Pereira, Colombia
124.	26.10.2021 to 01.11.2021	Vigilance Awareness Week 2021	Shri. R. Manga Babu	Chief Commissioner, CGST & Customs, Bhubaneswar, Odisha
125.	28.10.2021	Cyber Security Awareness	Prof. Manindra Agrawal	IIT Kanpur (Padma Shri)
126.	29.10.2021	Invited lecture	Dr. Pietro Tricoli	Reader, Power Electronics Systems, University of Birmingham
127.	01.11.2021	Invited lecture	Prof. Josep M. Guerrero	Aalborg University, Denmark
128.	12.11.2021	Invited lecture	Prof. Inocent Kamwa	Laval University Canada
129.	13.11.2021	Emerging viral infections: New frontiers and challenges	Dr Atanu Basu	Joint Director, Electron Microscopy and Pathology Group, National Institute of Virology, Pune
130.	15.12.2021 to	10 <sup>th</sup> National Power	Prof. Alberto Castellazzi	Kyoto University of Advanced Science, Japan
131.	17.12.2021	7.12.2021 Electronics Conference (NPEC - 2021)	Prof. Sanjib Kumar Panda	NUS, Singapre
132.			Prof. Josep M. Guerrero	Aalborg University
133.			Prof. Seldon Williamson	Ontario Tech Engineering and Applied Sciences
134.			Shri. Chandrasekar	Senior Director CDAC
135.			Prof. Bhim Singh	IIT Delhi
136.			Prof. Sukumar Mishra	IIT Delhi
137.			Dr. Prosenjit Sen	CeNSE, IISc.
138.			Dr. Sumit P.	IIT Delhi
139.			Dr. Ranajit Sai	llSc.
140.	26.12.2021 to 28.12.2021	History and Heritage of Sun Worship	Dr. Sunil Raina	An independent researcher, writer and a sadhaka
141.			Prof. Sriman Kumar Bhattacharya	Vice Chancellor of Shiv Nadar University, Chennai
142.			Prof. Dash Siniruddha	Former HOD and Director NCC project, Dept. of Skt. University of Madras
143.			Dr. Akhileswara Mishra	Head of the Department in Jyotisham, the madras sanskrit college, Chennai
144.	05.01.2022	Inauguration of School of Earth Ocean and Climate	Dr. M. Ravichandran	Secretary, Ministry of Earth Sciences, Govt. of India
145.		Sciences Building	Dr. Mrutunjay Mohapatra	Director General, India Meteorological Department (IMD)
146.			Prof. Avijit	University of Massachusetts Dartmouth, USA
			Gangopadhyay	presently a VAJRA faculty at SEOCS
147.	10.01.2022 to 11.01.2022	5 <sup>th</sup> Conference on India Radar Meteorology(iRAD 2022)	Prof. Indu J.	Professor, IIT Bombey

S. N.	Date	Name of the Event	Distinguished Visitor	Designation and Name of the University
148.	21.01.2022 to 22.01.2022	Radiation Transport and Applications	Prof. John Chai	Professor, Innovative Technology Research Center, Shenzhen Envicool Technology, China
149.			Prof. Kyle Daun	Professor, University Waterloo, Canada
150.			Prof. Pedro Coelho	Professor, University of Lisbon, Portugal
151.			Prof. Denis Lemonnier	Professor, CNRS, ISAE-ENSMA, Poitiers, France
152.			Prof. Laurent Pilon	Professor, University California Los Angeles, USA
153.			Prof. Michael Modest	Professor, University California Merced, USA
154.			Prof. Brent Webb	Professor, Brigham Young University, USA
155.			Prof. Dilip K. Parida	Professor, All India Institute of Medical Science Bhubaneswar, Odisha, India
156.			Prof. Kumar Mitra	Professor, Florida Institute of Technology Melbourne, Florida, USA
157.			Prof. Zhixiong (James) Guo	Professor, Rutgers University, New Brunswick, New Jersey, USA
158.			Prof. Sunil Kumar	N Professor, ew York University Brooklyn, New York, USA
159.	21.01.2022 to 24.01.2022	Application of Machine Learning to Wireless Communication	Dr. Harpreet S. Dhillon	Virginia Polytechnic Institute (Virginia Tech)
160.	12.02.2022	14 <sup>th</sup> Foundation Day	Dr Rajagopala Chidambaram	DAE Homi Bhabha Chair Professor, former Principal Scientific Adviser to Government of India, and former Chairman, Atomic Energy Commission
161.			Prof Dhanush Dhari Misra	Former Chairman BOG, IIT (ISM) Dhanbad
162.			Prof Damodar Acharyya	Former director, IIT Kharagpur
163.			Dr. Praveen Kumar Mehta	Distinguished Scientist & DG ACE, DRDO
164.	17.02.2022	Guest Lecture for Pavement Evaluation and Management Course	Mr. Vishwas Kelkar, and Mr. Pragnesh Soni	DGM and Sr. Engineer, Infinite Civil Solutions, Ahmedabad
165.	21.02.2022	Matribhasha Diwas	Shri Haraprasad Das	An eminent Poet and Author
166.			Prof. Himansu S. Mohapatra	Educationist
167.	28.02.2022	National Science Day and Research 12 <sup>th</sup> Scholars Day	Prof. V. Adimurthy	ISRO Honorary Distinguished Professor
168.	28.02.2022 to 04.03.2022	MoE-SPARC-sponsored online workshop "Data-driven and stakeholder centered	Dr. Meghna Babbar- Sebens	Associate Professor,School of Civil and Construction Engineering, Oregon State University, USA
169.		adaptive management of food, energy, and water (FEW) nexus"	Dr. Jenna Tilt	Assistant Professor,College of Earth, Ocean, and Atmospheric Sciences, Oregon State University, USA
170.			Dr. Nagesh Kolagani	Faculty, Department of Computer Science Engineering, Centurion University of Technology and Management (CUTM), Odisha
171.			Mr. Suresh Marru	Deputy Director & Chief Architect,Cyberinfrastructure Integration Research Center,Pervasive Technology Institute,Indiana University, USA

S. N.	Date	Name of the Event	Distinguished Visitor	Designation and Name of the University
172.	08.03.2022	International Women's Day	Mrs. Prativa Mohapatra	Vice-President & Managing Director, Adobe India
173.			Dr. Minati Behera	Chairperson, Odisha State Commission for Women
174.	17.03.2022	Ayurveda for Improving the Quality of Life	Dr. M. M. Rao	Director of Central Council for Research in Ayurvedic Sciences (an autonomous body of the Ministry of AYUSH
175.	21.03.2022	Know your National heritage to strengthen the National security	Prof. G. S. Murthy	Former Director School of Chemistry, Andhra University
176.	22.03.2022	Indo-Tibet Relationship Through Ages	Shri Acharya Yeshi Phuntsok	Former Deputy Speaker for the 16 <sup>th</sup> Tibetan Parliament in exile
177.	24.03.2022	Guest Lecture for Pavement Evaluation and Management Course	Dr. Yogesh Kumbargeri	Lead Asphalt Research, Western Research Institute, Wyoming, USA
178.	25.03.2022 to 27.03.2022	E-Summit'22	Sri Sandip Ranjan Das	Board director of Sterlite Technologies and Greenlam Industries and EX-CEO Jio
179.			Sh. Atulya B,	co-founder BuyUcoin
180.			Sh. Karthik Balasubramanian	Co-founder KIP foundation
181.			Sh. T. Muralidharan	Chairman FICCI Telangana and Founder Chairman, TMI Group
182.	25.03.2022 to 28.03.2022	Online foreign faculty lecture	Prof. Wolfgang Kuhnt	Director, Kiel University Germany





## **CENTRAL LIBRARY**

Central Library, a hub of learning resources, is one of the central facilities working with a mission to provide quality information resources in all forms to the academic and research community of IIT Bhubaneswar. The Central Library of IIT Bhubaneswar started functioning in a small room of 300 sq. ft. floor area with a mere collection of 2300 text books at IIT Kharagpur Campus in July 2009 and then moved to Toshali Bhawan, Satya Nagar in 1st April 2011 in a room with floor area of 2200 sq. ft. In 2016, the Library has extended its services to the Institute permanent campus at Argul, Khordha. The Central Library completely shifted to its permanent campus at Argul, Khordha in the year 2018. With a commitment to excel, the library plays a vital role starting from acquiring to disseminating all types of information resources by timely and innovative services to support the academic and research need of the user community. The range and quality of services offered by the Central Library are comparable to any modern libraries in India of International standards.

In a nut shell, the library is currently having over 22550+ volumes of books, 53+ full-text as well as bibliographical databases, and other resources like popular magazines/print journals, theses/ dissertations, and reports in Engineering,

Science & Technology, Management, Humanities and Social Sciences. Apart from the procurement of print books, the library achieved phenomenal progress in the subscription of e-resources which includes more than 9750+ e-journals, 36000+ e-conferences, 17000+ e-standards to its digital collection making "24 x 7 Library" in a real sense on the institute-wide network and off-campus access to e-resources through MapMyAccess.

# Library Collection at a Glance

The Central Library is having a rich collection of print as well as electronic resources that supports the academic and research needs of IIT Bhubaneswar fraternity. The collection includes books, journals, databases, software tools, theses/ dissertations, magazines and newspapers. The library provides supports to more than 2900+ users, which includes students, scholars, faculty members, staff, etc.

The total collection of the library as on  $31^{\text{st}}$  March 2022 stands as follows:

Collection (Print & Electronic)	Quantity	Collection (Print & Electronic)	Quantity
Books	22559	Full-Text Databases	41
E-Books (World E-Book Library)	75 Lakhs+	Bibliographic Databases	04
E-Books (Institute Subscription)	864	E-Book Databases	03
E-Journals	9750+	Standalone Databases	01
E-Conferences	36000+	Statistical Databases	01
E-Standards	17000+	Crystallographic Databases	01
Print Journals and Magazines	38	Plagiarism Detection Tools	02
Daily Newspapers	10	Reference Management Tools	01
Institute PhD Thesis	163	Writing Assistance Tools	01
ProQuest Dissertation/Theses	6.8 Lakhs+	Remote Access Tools	01

### **Library Services & Facilities**

#### The services rendered by the central library are as follows:

- » Library Membership and Borrowing Facilities
- » Circulation Service (Issue, Return, Renewal, Reservation, E-mail Alerts)
- WebOPAC (Web version of Online Public Access Catalogue)
- » Reference Service
- » Current Awareness Service (Newly Arrived Books)
- » Document Delivery Service
- » Research Support Service
- » Remote Access Service
- » Alert Service (Latest Research Publication of IITBBS through Library Website)
- » Plagiarism Check Facility
- » Writing Assistance Tool
- » Orientation Programmes

- » Reading Room Facility
- » WiFi (Wireless Fidelity) Facility
- » Hindi Collection (Rajbhasa Collection)
- » Non-Book Materials
- » Course Reserve Collection in Reading Area
- » Special Collection for Scheduled Castes & Scheduled Tribes
- » Display of Scholarship and Fellowship Information
- » Author Workshops for the Research Scholars and Faculty
- » Display of forthcoming conferences, other events, employment opportunities, and prospectus of foreign universities
- Short term internship for different University Master's students (MLIS)

## **Print and Electronic Resources**

The Central Library is having a rich collection of print resources such as books, theses, magazines and newspapers. The bibliographical information of these resources are accessible through the WebOPAC. The institute is also having a rich collection of electronic resources and is getting access to 53+ electronic databases through library subscription and e-SodhSindhu consortium. Electronic databases include full-text databases (e-journals), bibliographic databases, citation databases (Scopus and Web of Science), Statistical databases, data sets, software tools, e-books etc. These resources are being subscribed and renewed annually in collaboration with eSS (e-ShodhSindhu: A nationwide initiative by the Ministry of Education for Higher Education e-Resources).

The e-resources subscribed by the Central Library are as follows:

#### **Full-Text Database**

- AAAS (Science)
- » ACM Digital Library
- » American Chemical Society (ACS)
- » American Institute of Physics (AIP)
- » American Mathematical Society (AMS)
- » American Meteorological Society (AMS)
- » American Physical Society (APS)
- » American Society of Civil Engineers (ASCE)
- » American Society of Mechanical Engineers (ASME)
- » American Welding Society (AWS)
- » Annual Reviews
- » ASTM Standards & Digital Library
- » Cambridge Journals (5 Titles)
- » Cell Press Journals (14 Titles)
- » ECS Digital Library
- » Economic & Political Weekly
- » Emerald Engineering Collection
- » GeoScience World
- » ICE Current Engineering Journals
- » IEEE IEL Online
- » IOP Science
- » ISID Database
- » J-Gate Plus (JCCC)
- » JSTOR
- » McGraw-Hill Access Engineering
- » Nature (12 Titles)
- » Optical Society of America (OSA)
- » Oxford University Press
- » Project Muse
- » Proquest Dissertation & Theses (PQDT)
- » Royal Society of Chemistry (RSC)
- » Science Direct 8 Subject Collection
- » SIAM Online
- » South Asia Archive
- » Springer Journals

#### **Full-Text Database**

- » SAGE Engineering & Materials Science Collection
- » Taylor & Francis Journals
- » Wiley Online (63 Titles)
- » World Scientific (01 Title)

#### **Bibliographical Database**

- » SciFinder Scholar
- » MathSciNet
- » Scopus
- » Web of Science

#### **E-Book Database**

- » McGraw-Hill Access Engineering Library
- » World eBook Library
- » Wiley E-Books (3 Titles)

#### **Standalone Database**

» Cambridge Structural Database System (Researcher License)

#### **Statistical Database**

» EPWRF India Time Series

#### Crystallographic Database

» Pearson's Crystal Database

#### **Research Support Software Tool**

- » Turnitin
- » Ouriginal
- » EndNote
- » Grammarly
- » MapMyAccess

## **Document Delivery Service (DDS)**

The prime objective of the Central Library is to meet the information requirements of its clients most effectively. Document delivery service (DDS) refers to the physical or electronic delivery of a document from a library collection to a library user, upon request or demand. Central Library has been providing this service to its users and other requested libraries since its inception. The statistics of the document delivery service provided by the Central Library from 1<sup>st</sup> April 2021 to 31<sup>st</sup> March 2022 is given below:

	Document Delivery Service Statistics (From 1 <sup>st</sup> April 2021 to 31 <sup>st</sup> March 2022)									
Month	Document/Article Request Received	Document/Article Request Fulfilled	<b>Document Delivery Service Statistics</b>							
Apr-21	7	5								
May-21	15	10	35							
Jun-21	25	22	30							
Jul-21	25	22	25							
Aug-21	30	25	20							
Sep-21	28	23	15							
Oct-21	27	18								
Nov-21	11	8	5							
Dec-21	17	9								
Jan-22	14	8	Apr-21 May-21 Jun-21 Jun-21 Sep-21 Dec-21 Jan-21 Feb-21 Mar-21							
Feb-22	20	9	Ap Julu De Sele Ma Ma							
Mar-22	20	12	<ul> <li>Document/Article Request Received</li> </ul>							
Total	239	171	<ul> <li>Document/Article Request Fulfilled</li> </ul>							

### **Computing Infrastructure and Services**

The Library has its own LAN and WiFi network, which is connected to the Campus LAN. Currently, it has more than 10 PCs dedicated for the user to access electronic resources (e-journals, e-databases, etc), and a Blade Server that hosts Koha ILS, DSpace digital repository, and RFID middleware application. The computing or IT infrastructure of the Central Library is given below.

S. No.	Name of the Library IT Infrastructure	Software/Platform
1.	Library Automation	Koha ILS Software
2.	Institutional Digital Repository (IDR)	DSpace Digital Library Software
3.	Library Website	Inhouse developed CMS
4.	RFID based Circulation & Theft Detection	RFID Middleware & MS SQL
5.	Relational Database Management System	MySQL, MariaDB, PostgreSQL
6.	Remote Access	MapMyAccess
7.	Research Information Management (RIM)	IRINS

## **Library Website**

The Central Library has a comprehensive Home Page as a part of the Institute's website. The Library Home page serves as an integrated interface for all resources and services available from the Central Library. The library website is regularly updated by the library team. It is available at https://library.iitbbs.ac.in/ and offers the following web-based services:

- » Newly Arrived Books displayed at Home Page (Physically Displayed at the Library)
- » Latest Faculty Research Publications displayed at Home Page indexed by Scopus
- » Subscribed Electronic Resources (https://library.iitbbs.ac.in/online-e-resources.php)
- » Access to A-Z List of Journals Subscribed by IIT Bhubaneswar
- » Access to the Database of Theses Submitted by the Scholars of IIT Bhubaneswar

- » Library Catalogue or WebOPAC Search Interface on Home page
- » Web Access to List of Print Journals and Magazines
- » Remote Access to all e-Resources through MapMyAccess (https://iitbbs.mapmyaccess.com/)
- » Access to Institutional Digital Repository (http://idr.iitbbs.ac.in/jspui/)
- » Access to Research Information Management Service IRINS (http://iitbbs.irins.org/)

## **Library Automation**

Central Library has been automated all its housekeeping operations using an open-source integrated library management system software "Koha". The software is being maintained regularly and upgraded yearly to the latest stable version by the library team without any third-party support. It supports a web version of the online public access catalogue (WebOPAC) through which a user can search books, check issued books, renew and reserve books. Further, it automatically sends all transaction alerts to users including overdue notices and book due reminders. The WebOPAC or Library Catalogue is available at: http://koha.iitbbs.ac.in. The transaction statistics of the library from 1<sup>st</sup> April 2021 to 31<sup>st</sup> March 2022) is given below (Source: Koha).

Library Transaction Statistics (From 1 <sup>st</sup> April 2021 to 31 <sup>st</sup> March 2022)							
Transaction Type	Total Counts						
Checkouts (Issue)	5944	270/	220/		201		
Checkins (Return)	5287	37%	33%	28%	2%		
Renew	4607						
Localuse	291	Checkouts	Checkins	Renew	Local us		
Total	16129	5944	JZ0/	4007	29		



#### Institutional Digital Repository (IDR)

Central Library has also developed an Institutional Digital Repository (IDR) using an open-source digital library software "DSpace" in accordance with the National Digital Library (NDL), IIT Kharagpur mandate. Currently, it archived faculty research publications (metadata only) and annual reports of IIT Bhubaneswar. The repository is being maintained regularly and upgraded to the latest stable version by the library team without any third-party support. The IDR is available at: http://idr.iitbbs.ac.in/jspui



### MapMyAccess: A Cloud-based Remote Access Tool

Central Library has implemented a cloud-based remote access tool "MapMyAccess" for off-campus access of subscribed e-resources of IIT Bhubaneswar. MAPMyAccess is a Remote Access Solution that is specifically designed to facilitate off-campus and anytimeanywhere access to digital content of the subscribed e-resources of IIT Bhubaneswar. Users have the privilege of accessing library content from any device in a seamless manner by leveraging secured cloud hosting services. The MapMyAccess is available at: https://iitbbs.mapmyaccess.com/



## IRINS: A Web-based Research Information Management (RIM) System

IRINS (Indian Research Information Network System), a web-based Research Information Management (RIM) system developed by the Information and Library Network (INFLIBNET) Centre, has been set up for the IIT Bhubaneswar by the Central Library initiative. It facilitates IIT Bhubaneswar research fraternity to collect, curate and showcase the scholarly communication activities and provide an opportunity to create the scholarly network.

IRINS has been integrated with academic identity such as ORCID ID, ScopusID, Researcher ID, Microsoft Academic ID, Google Scholar ID for ingesting the scholarly publication from various sources. The IRINS instance of IIT Bhubaneswar is currently showing 133 faculty members, 4239 publications, 8 patents, and 69322 citations. It is available at: https://iitbbs.irins.org/

#### Institutional Ranking Activities

Central Library has been co-ordinating all the ranking related activities of IIT Bhubaneswar. The role of Library is to collect the data from different schools/departments/centres/sections as per the requirement of different national/international ranking systems/ agencies and compile the same for the purpose and submit those data online with due approval of the competent authority. The Institute participated in the following national and international rankings:



## **Out-reach Programmes of the Central Library**

#### Book Exhibition on the occasion of Hindi Pakhwada, Gandhi Jayanti and National Unity Day

Central Library organized book exhibitions on various auspicious occasions like Hindi Pakhwada, Gandhi Jayanti, National Unity Day (Birth anniversary of Sardar Vallabhbhai Patel), etc. Students and faculty members visited the exhibition on the respective occasions. On the occasion of Hindi Pakhwada, the library displayed all the rajabhasa books to its users for two weeks. Similarly, on the occasion of Gandhi Jayanti and National Unity Day, the library displayed books on respective leaders for two weeks.





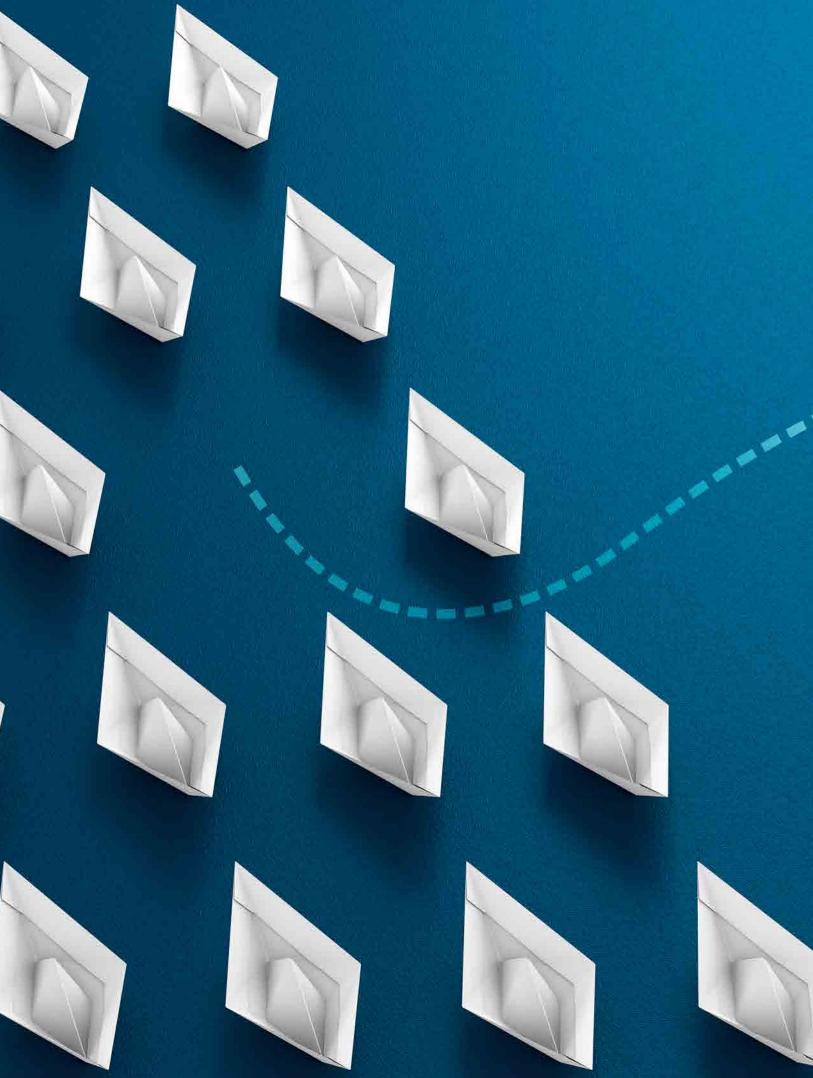


# **Computer and Information Technology Services Cell** (CITSC)

The Computer and Information Technology Cell (CITSC) of IIT Bhubaneswar has state of art servers, connected on a high-speed Gigabit Optical Fiber /UTP based network in a distributed environment. CITSC has implemented a solution for conducting online classes. Using this solution classes has been conducted Online successfully at IIT Bhubaneswar during the COVID-19 pandemic. CITSC has implemented solution in-house to hold conventional examination Online with invigilation in virtual examination halls and using this solution End-semester examinations had been conducted Online successfully at IIT Bhubaneswar. During COVID-19 pandemic, CITSC played a major role in successfully conducting the 10<sup>th</sup> convocation of the Institute in hybrid mode where degree certificates were awarded to students in-person and also in online mode. Our team provides support for conducting conferences, seminars and meetings in online mode and for live streaming different events. Audio-Visual facilities of classrooms are implemented and maintained by the in-house team of CITSC. Laboratories, faculty offices and staff offices are provided with telephone as well as with wired/wireless internet/intranet connectivity. CITSC provided document cameras, MS Teams facility and projectors in connection with classes in hybrid mode. All the members of IIT Bhubaneswar campus including students, faculty, staffs and officers are provided with e-mail ID a user-friendly e-mail system to access mails, both from inside and outside of the

campus. The campus network is protected with state-of-the-art antiviruses and next-generation UTM.

The Institute is connected with high-speed Gigabit Connectivity under NKN. Besides this, the institute is also having 200 Mbps PGCIL ILL. The Institute is having its own telephone exchange which can cater up to 10,000 users. The Institute is also having several hot-spot Wi-Fi points which is being used by the IIT Bhubaneswar users for wireless connectivity as well as an E-class room that allows users to access different academic video content. CITSC also provides video conferencing facilities to the Institute users utilizing desktop video conferencing as well based on hardware video conferencing. All the faculty members and students have access to the Institute developed ERP. The ERP is being used for students grading, feedback, academics and admissions as well as for placement related activities. ICT needs of the institute is being planned and executed by the in-house team of IIT Bhubaneswar. CITSC team provides round the year network and hardware supports to all the members of the Institute. Our team encourages use of free and open source software among the campus inmates. Our team also provides supports to several advanced and special purpose software such as Ansys, Matlab, Mathematica, etc.





The Career Development Cell (CDC) offers a wide range of portfolios which include empowering students to explore, define, and realize their career goals. The CDC also engages in one-on-one counseling sessions, consultations throughout the career planning process, and assistance with goal-setting and goal achievement through a variety of career exploration activities. The ultimate aim is to provide lifetime tools and skills for professional development, job search success, and career satisfaction, supporting the students in shaping and managing their careers by building key ingredients required for a student to be a complete professional.

Campus placements of 2021-22 threw open new challenges in the outbreak of Covid-19 pandemic in terms of safeguarding placement & internship offers made by various recruiters across the globe.

#### Key highlights of campus placements 2022

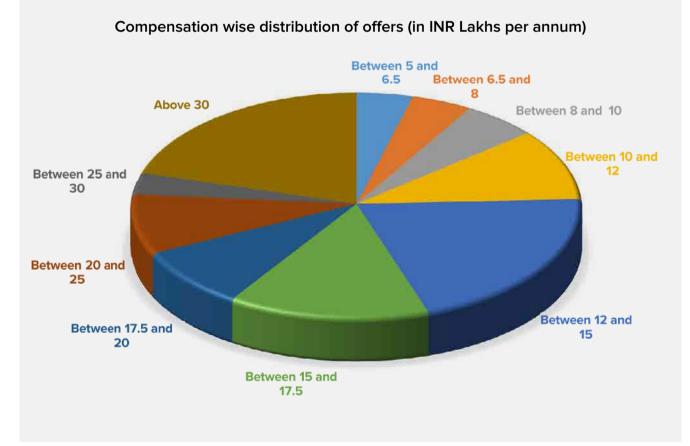
- » 55% of IIT Bhubaneswar undergraduates received top placements in first 3 days of the placements (85% of them are of CSE, B.Tech). This is the first time when such large number of undergraduates got offers in just 3 days of the opening season.
- » Total 291 students from UG (B.Tech+DD) received a total of 313 offers out of 312 participating students
- » Undergraduate placement is 93+% and placements would continue till end of July 2022.
- » The highest domestic CTC offered was 44.10 Lakhs per annum, the highest ever received till date in IIT BBS.
- » More than 20% of students received offers with a CTC greater than 30LPA, while around 30% of students received offers with a CTC greater than 15LPA.
- » M.Tech placements have reached 80% now. Placement process will continue till end of July 2022. A good line-up of companies are still expected to hire from M.Tech branches.
- » PSUs such as GAIL, Oil India Limited, C-DAC, IOCL & BEL, etc. participated in the campus placements.
- » MNC companies like Google, Amazon, Byjus, Gojek, Unacademy, Mathworks, Goldman Sachs, GE India, Flipkart, Adobe, Toppr Vedanta, Qualcomm, TCS R & D, Samsung, FlyFin, Paytm, D.E.Shaw, L&T, LTI and Tata Steel have participated in this year of placements.
- » Pre-final year B.Tech students have received internship offers in reputed industries. Majority of CSE branch engaged in Internships has the possibility of a full-time offer.

## Companies



	CSE	ECE	EE	Mech	Civil	MME	IDD CSE	IDD Civil	IDD Mech	IDD Meta	IDD EE	Total
Participated	54	43	53	43	39	18	10	15	24	05	08	312
Placed	53	43	50	41	30	17	10	11	23	05	08	291
Percentage Placed	98.15%	100%	95.35%	93.02%	76.92%	94.44%	100%	73.33%	95.83%	100%	100%	93.27%
Offers	62	46	54	43	31	19	11	11	23	5	8	313
Highest CTC	44.10	44.10	44.10	32	30	30	41.50	40	40	32	30.70	44.10
Lowest CTC	9.65	8.50	6	5	5.5	9	13	8	7.5	13	13	5
Average CTC	22.40	21.20	20.32	12.62	10.25	13.53	28.68	12.63	17.21	21.92	18.44	19
Median CTC	19.25	20	15	12	11	12.54	30.5	13.50	12.77	20	19.92	15

### Course/stream wise distribution of placement



\*\*\* Placement process has not been over yet and will continue till July 2022.

List of all the companies visiting IIT Bhubaneswar Campus for Full time hiring in A	cademic
Year 2021-22	

Addverb	Ceremorphic	GE Healthcare	Optum UHG	Tata steel
Adobe	Cubastion	Gojek	Oracle	TCS R&I
Amazon	Cubastion Cons.	Goldman Sachs	Paytm	Thermax Global
Analog Devices	D.E.Shaw	Google	Regology	Oil India Limited
Applied Materials	Darwinbox	HCL	Ring central	Tiger Analytics
Brane	Dassult System.	ICICI	Samsung RI	Toppr
Amagi	DBS Bank	IOCL	Sandvine	Unacademy
Brigosha	C-DAC	L&T	SAPIENS	Versa Network
Byjus	Deloitte(Analyst)	L&T Infotech	Sigmoid	Virohan
Carrier	Delta Electronics	Licious	Silicon Labs	Bharat Electronics Ltd
Caterpillar	Eaton	LTI	Sprinklr	Vedanta
Ceremorphic	Flipkart	MAQ Soft	STL	Vedantu
Cogoport	FlyFin	Mathworks	Revature	Wabtec Corporation
Couture Al	Fundwave	Netcracker	Svaya Robotics	Wipro
CropIn	Future First	GAIL	Sandvine	ZS Associate
Crypso	GE	Optum	Swiggy	JSL
No. of students placed	Highest CTC	Lowest CTC	Average CTC	Median CTC
291	44.10 LPA	5 LPA	19 LPA	15LPA



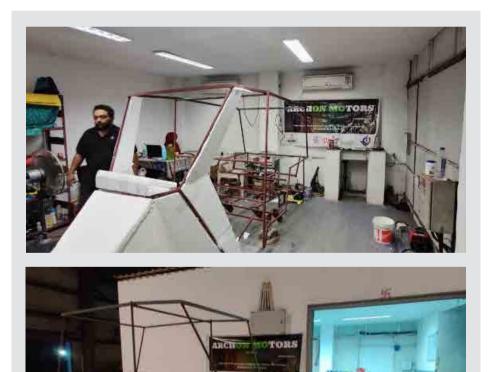
# **START-UP CENTRE**

Research and Entrepreneurship Park (REP), IIT Bhubaneswar is a Section-8 company established in 2017. The company's aim is to help the budding entrepreneurs by providing with necessarily facilities including incubation center and expertise advises. IIT Bhubaneswar being one of the leading technology institute of the country, REP, IIT Bhubaneswar is becoming an obvious choice for many budding technologists and entrepreneurs to incubate their ideas under the big umbrella of REP, IIT Bhubaneswar.

### REP IIT Bhubaneswar facilitates Providing plug and play office space to startups at affordable rates.

- » Support for mentorship, technical, legal, and financial advice by empaneled consultants.
- » Financial assistance through multiple channels.
- » Acting as a Nodal agency for approval of startups for Startup Odisha.
- » Conducting capacity building programs

Since its inception, Research and Entrepreneurship Park (REP), IIT Bhubaneswar has incubated more than 10 startups. A few of the startups incubated at REP IIT Bhubaneswar have successfully launched their products after incubation. Two of the currently existing incubations are on their way to launch their products.



## Recently Conducted Activities

- » AR/VR Hackathon conducted by Virtual and Augmented Reality Centre of Excellence (VARCoE), in January 2022, where participants across the country presented their ideas. A few of the ideas have been selected for further funding.
- » Very recently, VARCoE conducted an AR/VR workshop for 40 ITI faculties during 13-14 May 2022. Sri Subrata Bagchi, Chairman of Odisha Skill Development Authority was the chief guest. Mr. Bagchi emphasized on the necessity of such workshops and lauded the effort of VARCoE and REP IIT Bhubaneswar for connecting ITI with IIT.

# Technology Incubation Centre

Currently three projects running under technology incubation centre under 5<sup>th</sup> call of TIC projects and four have completed in year 2021-22. The newly approved projects are in the areas of 1. (PI: Dr. Remya Neelanchery, SIF), 2. Development of scan to print device (PI: Dr. P.R. Sahu, SES) and 3. Developing an instrument for pavement distress measurement (PI: Rithika Gujarati, Student, SIF, under Mentorship of Dr. Anush K. Chandrappa, SIF). Also, four projects concluded in year 2021. Three being from the area of Application of Internet of Things for smart homes, power quality monitoring and health monitoring whereas the fourth was based on Biogas production by consuming the biowaste being produced in IIT hostels kitchens. The project site it as Mahanadi Hall of residence. The 6<sup>th</sup> call of TIC projects is already given for the academic year 2022-23.



## E- CELL

The eighth edition of the event E-Summit, an annual entrepreneurship conclave of IIT Bhubaneswar was conducted under the aegis of E-Cell during March 25-27, 2022. The event comprised of various guest talks, competitions, workshops, internship fair and investors drive to bring the entrepreneurial skills of the participants to the fore. The event witnessed a participation of more than two thousand participants from colleges of various parts of Odisha and other states. Entrepreneurship Summit' 22 started with the theme "Embracing innovation: Reshaping the Future". The inaugural ceremony was graced by honorable chief guest of the event Sri Sandip Ranjan Das, Board director of Sterlite Technologies and Greenlam Industries and EX-CEO Jio, who attend it virtually, and was inaugurated by Prof R.V. Raja Kumar, honorable Ex. Director, IIT Bhubaneswar in the presence of Prof. P.V Satyam, Dean - Student Affairs, Chairperson E-Summit Dr. Madhusmita Das, PIC E-Cell Dr. Gaurav Bartarya, Vice Chairperson E-summit Dr. Raja Kumar Guduru, Chief Coordinator of E-summit Sai Abhinav, and the students of IIT Bhubaneswar. The chief quest Sri Sandip Ranjan Das, highlighting the theme of E-Summit'22, "Embracing Innovation: Reshaping the future", called this generation "The age of innovation and creativity" by aptly pointing out the advancements of technology like Artificial Intelligence, Metaverse etc. He emphasized that every problem is a startup opportunity and urged students not to chase success but to gain excellence. More than 650 participants viewed the inaugural ceremony in offline mode and through online streaming.



E-Summit'22 kicked off with the Cryptocurrency conclave. The panel consisted of famed personalities like Sh. Atulya B, co-founder BuyUcoin, Sh. Karthik Balasubramanian, Cofounder KIP foundation and others. The panel started with an introduction of cryptocurrency to the audience and discussed about all the important aspects of the crypto world. More than 500 participants viewed the cryptocurrency conclave through online streaming. The day also witnessed the events like startup internship fair, invest up - the event that presents a one stop solution to all startups that are in need of funding and mentoring, Enigma - the competition to bring up the ability to analyze and come up with the solution to a real time problem, Kreo, Insignia and Epigramma. The day concluded with the second round of Entrepreneurial Ideation. All these events saw a combined participation of 250 students and 15 startups. About 70% of the participants were from outside IIT Bhubaneswar.

The other important events of the E-Summit were B-plan (a business plan making competition), Innovation Expo - an event to showcase innovative project or ideas, B - Quiz (a challenging test through the world of business), Startup Internship fair, Marcatus - the event that brings out the marketing acumen of an Individual, along with Fintech entrepreneurship conclave, Crypto Wars and IPL auction. The E-Summit'22 culminated with the interaction of the participants with Sh. T. Muralidharan (Chairman FICCI Telangana and Founder Chairman, TMI Group), the Chief Guest of the valedictory ceremony.





## Rajbhasa Ekak

In pursuance of the Official Language Policy of the Government of India, Rajbhasha Ekak of the Institute promotes the progressive use of Hindi in IIT Bhubaneswar. The Institute wholly tried to follow the rules and regulations of the Govt. of India related to the Official Language Hindi by deputing other staff and officers of the Institute. The Raibhasha Ekak provides the translation of the Institute Annual Report, Annual Accounts, Audit Report, RTI and various other documents, which come under Section 3(3) of the Official Language Act, 1963. In addition, different other letters and correspondences, replies, etc. are either translated or prepared in Hindi. The Rajbhasha Ekak also tries to ensure the effective implementation of the 'Official Language' policy of the Govt. of India at the Institute. The Ekak ensures the bilingual display and use of different nameplates, notice boards, rubber stamps, and routine type forms and also helps in preparing the bilingual Degree certificates awarded by the Institute during Convocation. The Ekak involved the students and motivated them to use the official language and organize an official language program during different institute functions with the help of the Hindi literary society "Abhivyakti" under student gymkhana. Some of the highlights of Rajbhasha activities are as follows:

#### Hindi Training and Workshop

From time to time, Rajbhasha Ekak imparts Hindi training to all Institute employees who have no working knowledge of Hindi. To solve the problem faced by the employees in using the official language, the Rajbhasha Ekak organized workshops/ training for the employees of the Institute.

#### Hindi Pakhwada Ceremony

The Rajbhasha Ekak and Hindi Literary Society of Students Gymkhana "Abhivyakti", IIT Bhubaneswar organised "Hindi Pakhwada" from 1<sup>st</sup> September to 14<sup>th</sup> September 2021 in the Campus. During this period, several programmes were successfully organised at IIT Bhubaneswar for the enhancement of the Hindi language such as Hindi Pustak Pardarsani, Slogan Lekhan Pratiyogita, Dristikon Lekhan, Atithi Wakhyan, Hindi Kavita Paath, Waad Vivaad, Hindi Prasnotari, Nibandh Pratiyogita, Hindi Workshop, and Hindi Diwas Karyakram. Due to the pandemic situation, all programmes were organised through online mode. The motto of this 14 days programme was to celebrate the importance of the Hindi language along with creating awareness about its use in daily life.

Eminent personalities, known for their contribution to Hindi literature, including Devendra Choubey of JNU, Ganapat Teli of Jamia Millia Islamia University, Bhavya Soni of Rajasthan University, etc. were involved as judges for these events and also gave tips to students for improvement. The most important attraction of the evening was Hasya Kavi Shambu Shikar, whose comments and Hindi poetry were enjoyed by all. Various colleges and Institute have participated in the programme. Moreover, the Central Library and Rajbhasha Ekak of IIT Bhubaneswar jointly organised the "Hindi Book Exhibition" in the institute's Central Library till 16<sup>th</sup> September 2021. The motto of the exhibition was to encourage visitors to read Hindi books.

Prof. R. V. Raja Kumar, then the Director, IIT Bhubaneswar, graced the closing ceremony programme and congratulated all the winners of the various competitions. Speaking at the closing ceremony, Prof. Raja Kumar said, "Hindi is one language which can be spoken across the country, and students should be taught the importance of our national language. We are happy to host the Hindi Pakhwada on the Campus, and the students, faculty and staff have actively participated in various competitions through the online mode owing to the ongoing pandemic situation. At IIT Bhubaneswar, we give due importance to implementing the Rajbhasha Policies of the Govt. of India. I would also like to emphasize the simplicity, mellowness, and power of Hindi as a language and urge you all to make Hindi a part of your daily office routine.

The winners of the competition were awarded cash prizes and a certificate of participation. Dr. Raj Kumar Singh, then PIC Rajbhasa Ekak, IIT Bhubaneswar also read out the message of the Hon'ble Shri Amit Shah, Home Minister, Govt. of India. The vote of thanks was proposed by Dr. Sambhunath Sahoo, Assistant Librarian and Officer-in-charge Rajbhasha Ekak, IIT Bhubaneswar.

#### **Bilingual Website**

As per the Official Language Policy, Govt. of India, Rajbhasha Ekak, maintains a bilingual update of the Institute's website. Rajbhasha Ekak links are active on our institute website, which contains various useful information related to the effective use of the Official Language Policy.

#### Committees

#### **Official Language Implementation Committee**

The Institute has an Official Language Implementation Committee to look after the implementation of Official Language policies of Govt. of India and to review the progressive use of Hindi in the Institute. Four quarterly meetings of the committee were held last year under the chairmanship of the Director of the Institute. In the meetings, discussions were made to accelerate the progressive use of Hindi in the Institute.

#### Town Official Language Implementation Committee (TOLIC)

The 69<sup>th</sup> half-yearly meeting of TOLIC Bhubaneswar was organized by Principal Accountant General Bhubaneswar office online on 26/08/2021. Dr. Raj Kumar Singh, then PIC Rajbhasha Ekak attended the meeting. The 70<sup>th</sup> half-yearly meeting of TOLIC Bhubaneswar was organized by Principal Accountant General Bhubaneswar office online on 27/01/2022. Dr. Sunil Kumar Prajapati, PIC Rajbhasha Ekak attended the meeting and gave his suggestions.

#### Successful Coordination of the Inspection Tour Programme of the First Sub-Committee of Parliament on Official Language of the Central Govt. Offices located at Bhubaneswar

IIT Bhubaneswar has successfully coordinated the Inspection Tour Programme of the First Sub-Committee of Parliament on Official Language of Nine (09) Central Govt. Offices located at Bhubaneswar from 27-12-2021 to 29-12-2021. The nine (09) participated Central Govt. Offices were (1) Paradip Port Trust, Bhubaneswar, (2) Registrar of Companies, Cuttack, Bhubaneswar, (3) Directorate of Census Operations, Bhubaneswar, (4) Regional Office, Kendriya Vidyalaya Sangathan, Bhubaneswar, (5) State Office, Bharat Petroleum Corporation Limited (BPCL), Bhubaneswar, (6) Regional Passport Office, Bhubaneswar, (7) Archaeological Survey of India, Konark, Bhubaneswar, (8) Institute of Physics (IOP), Bhubaneswar, and (9) Indian Institute of Technology, Bhubaneswar (Coordinator). The inspection of these offices was smoothly and successfully conducted by the Hon'ble Members of the First Sub-Committee of Parliament on Official Language. The Rajbhasha Ekak of IIT Bhubaneswar with due consultation with Rajbhasha Section of the Ministry of Education, Govt. of India was prepared and filled up the Inspection Questionnaire and submitted the same to the Committee of Parliament on Official Language, Teen Murti Marg, New Delhi. The inspection of IIT Bhubaneswar was held on 29th December 2021. IIT Bhubaneswar received lots of appraisals from the Hon'ble Members and the participating government officials for the successful coordination of the event. Dr. Sunil Kumar Prajapati, PIC-Rajbhasha, coordinated the programme.



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Comic Poet Shri Sambhu Shikhar and student of IIT Bhubaneswar at online platform



Professor Devendra Choubey from JNU and student of IIT Bhubaneswar at online platform



Central Library organized Book Exhibition during Hindi Pakhwada



Online participation of students in Hindi Pakhwada at IIT Bhubaneswar

# **ALUMNI RELATIONS**

Placements are another stepping-stone in our careers. It's where we need to thrive hard to claim our position in a company/ organization/globally recognized institute, but it's never easily navigable process. Alums play a tremendously active role in successful placements. They create a positive image of the institute in the market and lend their helping hand convincing their companies to run a recruitment spree on campus. If it is some institution you are trying to get into or a job in a specific company or organization, be it anything, you could always reach out to Alumni. There vast network of connection would provide ample guidance as well as help you achieve what you aspire for.









In our institute, we have alumni conquering all the areas, be it Technocrats, Startups, Management, Research scholars, Indian Civil Services, Core placements, or Non-Core placements. This diversity in our Alumni Network gives students flexibility and the power to achieve anything they want, conventional or nonconventional. Say you need human resources for your startup idea, you could reach out to your Alumni to convey your vision, and if they find their interest, they may join you. It gets super convenient in comparison to the scenario without them. Talking about our alumni, a few companies they are placed at include Google, Microsoft, Amazon, Flipkart, and Goldman Sachs. We have them in startups like Rapido, IbHubs, and IIMs A, B, and C. Some of them are IAS, IES, and IRS officers. They are our mentors when it comes to the basic principles that one should abide by in life. We also have research scholars and Masters in various Ivy League universities like Cornell University and Columbia University. Universities like ETH Zurich, the University of Texas at Austin and University of California at Berkeley. These are just a few examples.



## **EVENTS**

## Workshop, Hackathon and Start-up Colloquium on Virtual and Augmented Reality

IIT Bhubaneswar in association with Software Technology Parks of India (STPI), MeitY and Govt. of Odisha organised a Two day (09th-10th April, 2021) Workshop, Hackathon and Start-up Colloquium on Virtual and Augmented Reality in Hybrid mode. The Inaugural ceremony of the Conclave and Hackathon was inaugurated by Dr. Omkar Rai, Director General, STPI and Chief Guest of the event via video conferencing. The event was presided over by Prof. R.V. Raja Kumar, Director, IIT Bhubaneswar and participants were welcomed by Prof. R. K. Panda, Dean Alumni Affairs and International Relations, IIT Bhubaneswar. Speaking on the occasion, Prof. Raja Kumar, while welcoming all the participants spoke about the genesis of the Center of Excellence in Augmented Reality and Virtual Reality (VARCoE) and its activities happening in AR/VR at the Institute. He emphasized that taking into consideration the two clarion calls, "Make in India" and "Aatma Nirbhar Bharat." by Hon'ble Prime Minister of India, there was a need felt for creation of an ecosystem for manufacturing, research and development activities and creation of leadership in the core areas of AR-VR. A CoE in this important area was created at the Research and Entrepreneurship Park (REP) of IIT Bhubaneswar for activities majorly focussing on manufacturing along with research and development in the areas of AR-VR.

He also mentioned about the successful launch and execution of Conclave and Hackathon in the year 2020 by the CoE of the Institute for the budding entrepreneurs, engineering students and start-ups for creation of disruptive and inspiring products/ solutions in the AR-VR domain. He also acknowledged the philanthropic support from Smt. Susmita Bagchi, Chairman, Mo School, Shri. Subroto Bagchi, Odisha Skill Development Authority, the support from Department of MSME, Govt. of Odisha, and STPI for joining hands together with IIT Bhubaneswar for creation of Centre of Excellence in AR-VR (VARCoE) at the institute.

Chief Guest Dr. Omkar Rai, Director, STPI spoke in detail about the role of technology in addressing the gravest challenges of the world by delivering path breaking solutions. He also mentioned that it's imperative for the Indian IT industry to stand tall and support the nation in overcoming the challenges and making it an example for the audiences spread across the globe. He reiterated that the thrust on further easing business norms and incentivising start-ups, embracing emerging technologies such as AI, ML, IoT, AR, and VR for catalysing the growth of the Indian economy. He stressed on the need for indigenous technologies and creation of a suitable ecosystem for collaborative research and innovation thereby helping tech companies and start-ups for building indigenous affordable products for the citizens of the nation. He also mentioned about the CoE being the first of its kind in the country and foreseeing it as a leader in the coming times.

185



VARCoE focuses on creating an ecosystem for carrying out R&D in immersive visualization and applications, giving impetus to skill development, manpower creation through innovative education program and foster technology incubation and entrepreneurship. The Conclave and Hackathon includes

several guest talks, interactive sessions, workshops by student teams. Some of the esteemed speakers during the two day conclave include interesting talks by Shri. Nirav Jain, Lead Software Engineer (SDK &Tools), Magic Leap, Canada, Dr. P P Roy, IIT Roorkee, Shri. Praveen Bhaniramka, Chief Executive Officer, Viz Experts, Shri. Sanan Goyal, Project Manager - India Question What's Real, Ramesh Anumukonda, Chief Gamer, Founder, A Plus Associates LLP and Dr. Neha Tuli, Chitkara University and Co-Founder 6DoF. The talks and sessions will be followed by award ceremony on the last day. Also present on the occasion were Dr. P.K Sahu, Professor-in-charge, VARCoE, Dr. Rajan Jha, Associate Professor and Member, VARCoE, Dr. V. Panduranga, Associate Professor, and Dr. Kodanda Ram Mangipudi, Assistant Professor, IIT Bhubaneswar. The inaugural ceremony ended with vote of thanks by Dr. P.K. Sahu, PIC-VARCoE, IIT Bhubaneswar.

## Plantation Drive on the occasion of World Environment Day

IIT Bhubaneswar on the occasion of "World Environment Day" organized a plantation drive on 5<sup>th</sup> June 2021 inside the campus aimed at campaigning for green culture and promoting a greener ecosystem along with providing a pollution-free atmosphere, by adhering to the safety and social distancing parameters in view of COVID-19. The drive was inaugurated by Prof. R.V. Raja Kumar, Director, IIT Bhubaneswar.

The plantation of the trees was successfully carried out as per the planned schedule. Many plant saplings of different types and sizes were planted during the plantation drive. Also participated in the drives were Deans, Dr. Srinivas Bhaskar Karanki, PIC Horticulture Academic area, Lt Cdr Raj Kumar, Chief Security Officer, Shri Anuj Pradhan, Superintending Engineer, IIT Bhubaneswar along with other faculty, staff and their respective families.





## Vaccination drive for its entire fraternity

In view of the phenomenal rise of Covid-19 cases across the country, IIT Bhubaneswar with a motto to safeguard and protect the campus and its community of students, faculty, staff members and their dependants including their outsourced staff ranging from security, housekeeping, horticulture etc. against the deadly virus successfully got vaccinated all in four slots with active support from Department of Health and Family Welfare, Govt. of Odisha and Ministry of Education, Govt. of India. The vaccination drive was conducted on 15<sup>th</sup> May, 7<sup>th</sup>, 15<sup>th</sup> and 16<sup>th</sup> June, 2021 at three different centres located in Bhubaneswar and Khordha district. Post vaccination, no side effects were observed and after that all the students and workforce could function as usual in their daily routine.

The institute acknowledge the support received from Govt. of Odisha and the Ministry of Education in this endeavour. Our country has launched the largest of the vaccination drives in the world, it is the duty of everyone to overcome the pandemic and we join the drive."

From the time of its inception, IIT Bhubaneswar has been consistent in its commitment to offer comprehensive medical care and wellbeing of its students and its entire workforce (Faculty, officers, staff, security, horticulture and housekeeping) including their dependents. The Institute could protect the campus from Covid all through till April except for 5 cases in last September 2020. During May-June, a few cases have developed in the campus due to the 2<sup>nd</sup> Wave which is being handled well. Strict measures were taken by the institute's Covid Prevention Task Force (CPTF) to keep the numbers under control.



## 7<sup>th</sup> International Day of Yoga

The 7<sup>th</sup> International Day of Yoga was observed on 21<sup>st</sup> June, 2021 (Monday) at IIT Bhubaneswar with great enthusiasm and vigour amidst the pandemic. It was a two day program which commenced from 20<sup>th</sup> June, 2021. About 350 students participated in the Yoga practice session conducted online on the MS Teams platform on June 20<sup>th</sup> 2021. On 21<sup>st</sup> June 2021, the International Day of Yoga event was conducted in a hybrid mode. Swami Achalananda Giri, Secretary and Administrator for Prajnana Mission was the Chief Guest of the event and joined the yoga session by online. The students, faculty, officers, staff and their family members actively participated in the event. The theme for this year's International Yoga Day is "Be with yoga, be at Home"

The participants, and Yoga teachers assembled for the practice session at the Community Centre by adhering to the social distancing protocols and compulsory wearing of masks. The Yoga session started with the systematic practice of different "ASANAS" of standing, sitting and laying positions (both lying on back and reverse) smoothly changing in succession under the instructions of Yoga teacher and supervision of trained volunteers. The entire event was live streamed through Microsoft teams, many students participated from their hostels, and from their home across the country.

Prof. R.V. Raja Kumar, Director, IIT Bhubaneswar addressed the gathering and reminded about the benefits of practicing yoga in everyday life and highlighted the potential and benefits of customization to suit every Individual. He mentioned that at IIT Bhubaneswar, Yoga has been made a compulsory part of the undergraduate program. He reiterated on the fact that yoga brings healthy rhythm in body and mind including thinking and explained how the daily practice perpetually benefits to reduce stress at work especially during the ongoing pandemic time paving the way for a healthy body and mind.

He also shared his experience and wisdom about his decade's long Yoga practice. Thus, Yoga is an inexpensive way to boost your immunity and for holistic healing, a concept that India has taken to the globe. He also credited the Hon'ble Prime Minister of India for popularizing the concept of Yoga across the globe by proposing the concept of International Yoga Day during his speech at the United Nations General Assembly, on 27<sup>th</sup> September 2014.

Swami Achalananda Giri, the Chief Guest of the event gave a thought provoking talk on Kriya "Basic concepts in Yoga", its benefits, and various aspects along with an overview into breathing techniques and meditation where the entire IIT Bhubaneswar fraternity actively participated. He further emphasized that regular practise of Yoga will help in all-round development of Individuals helping them to unlock their infinite potential hidden within.



Present on the occasion were Shri Debaraj Rath, Registrar I/c and Dr. Barathram. Ramkumar, Chairman, CITSC, IIT Bhubaneswar. The programme was coordinated by Dr. Srikant Gollapudi and Dr. Bankim Chandra Mandal, EAA Coordinators. The session ended with the vote of thanks.

## AICTE Atal Faculty Development Programme on Effective Team Work

The AICTE ATAL Faculty Development Programme on **"Effective Team Work"** was organised from **26<sup>th</sup> -30<sup>th</sup> July 2021.** The programme was inaugurated at the School of Humanities, Social Sciences and Management (SHSSM) of **IIT Bhubaneswar** on 26<sup>th</sup> July 2021.

The AICTE ATAL Academy offers continuous learning opportunities to Faculty members of AICTE approved institutions from all over the country. The initiative is ensuring skill improvisation for AICTE affiliated teachers in these challenging times of the COVID 19 Pandemic.

This is the second AICTE ATAL FDP being organized by SHSSM, IIT Bhubaneswar. Shri Jaswinder S. Ahuja, Corporate Vice President, and Managing Director of Cadence Design Systems India graced the event as the Chief Guest for the occasion.

The virtual Inauguration of the ATAL online FDP was conducted on 26<sup>th</sup> July 2021 in the august presence of Prof. Anil Sahasrabudhe, Hon'ble Chairman, AICTE and Guest of Honor, Dr. Mamta Rani Agarwal, Adviser-I, ATAL Academy and many other dignitaries.

Through our very effective Continuing Education programme, IIT Bhubaneswar has always been leading the path in providing continuing education opportunities to engineers from in duty and very importantly the teachers. We complement AICTE for the very effective ATAL FDP initiative and glad to participate in the endeavour said by Director IIT Bhubaneswar. Under the active guidance of the Director and ample support from Prof. Swarup Kumar Mohapatra, Dean, Continuing Education and Head, SHSSM, the programme is being coordinated by Dr. Punyashree Panda from SHSSM, IIT Bhubaneswar. Approximately 200 faculty participants from AICTE recognized Institutions from all over India have registered in the week-long event.

## **New Academic Session Begins**

At IIT Bhubaneswar, the admissions into all the programs except for the first year B.Tech are completed, the students have been registered, and the new academic session was commenced timely from 02<sup>nd</sup> Aug, 2021. This year 176, 110 and 44 students joined in M.Tech, M.Sc and PhD programme respectively in the current academic session. An Orientation programme was held for them on 06<sup>th</sup> Aug, 2021 to welcome and orient them to the systems of the Institute, i.e., to the academic, extra-academic and hostel activities of the institute. On this occasion, Prof. R.V. Raja Kumar, Director, IIT Bhubaneswar addressed the students, followed by Dr. P.R. Sahu, Dean, Academic Affairs, all by

online at the Community Center.

Dr. P.R. Sahu made presentation on the salient feature of the academic programmes and the academic regulations.

Others present on the occasion include Prof. Sujit Roy, Dean R & D, Shri Debaraj Rath, Registrar along with faculty, officers and staff of IIT Bhubaneswar. The orientation programme had addresses by all the Heads of the School, Dr. Shantanu Pal, Warden, Dr. Sankarsan Mohapatro, President, Student Gymkhana, Dr. Srinivas Bhaskar Karanki, PIC Counselling and faculty advisors, IIT Bhubaneswar.







## Independence Day with Patriotic Fervour amidst the pandemic

IIT Bhubaneswar celebrated the 75<sup>th</sup> Independence Day at its Campus by adhering to social distancing and other norms as per Govt. protocol amidst the Covid-19 pandemic. Prof R.V. Raja Kumar, Director, IIT Bhubaneswar hoisted the National Flag, offered a floral tribute to the Father of the Nation, Bharat Mata and delivered his Independence Day address followed by the national anthem, sung by everyone in a rhythmic chorus.

Others present on the occasion include Prof V.R. Pedireddi, Dean, Student Affairs, Dr. Pravas Ranjan Sahu, Dean Academic Affairs, Shri Debaraj Rath, Registrar, Dr Shantanu Pal, Warden, Dr. Srikant Gollapudi, EAA Co-coordinator, faculty members, staff and a large number of students. The vote of thanks was proposed by Dr Bankim Mondal, EAA Coordinator.

## Inauguration of Pushpagiri Lecture Hall Complex and Rishikulya Halls of Residence

Shri Dharmendra Pradhan, Hon'ble Union Minister of Education, Ministry of Education, Govt. of India graced the campus and inaugurated the Pushpagiri Lecture Hall Complex and Rishikulya Halls of Residence of IIT Bhubaneswar two of its new facilities on 20<sup>th</sup> Aug, 2021 (Friday), on his first visit to the state after assuming charge as Minister of Education. On this occasion, an MoU was exchanged between Prof. R.V. Raja Kumar, Director, IIT Bhubaneswar and Shri Ranjan Kumar Mohapatra, Chairman, Skill Development Institute (SDI), Bhubaneswar in the presence of Shri Dharmendra Pradhan, for extension of expertise and support from IIT Bhubaneswar to SDI in SDI's endeavour enhancing skill development activities for unemployed, under-employed & underprivileged youth with technical education relevant to the industry.

Speaking on the historic occasion, Shri Dharmendra Pradhan complemented the institute for its outstanding wellness, teaching excellence and research aura the Institute had created. He expressed his happiness in inaugurating the new age Pushpagiri Lecture Hall Complex and Rishikulya Halls of Residence. He specially complemented the Director and his team for facilitating the cream of global class education through several innovations during the pandemic. He also expressed that IIT Bhubaneswar being a leading Institute in the state of Odisha should take the lead in the effective implementation of the National Education Policy (NEP-2020) put forward by Govt. of India and paving the path for holistic and multidisciplinary education and thereby helping the needy sections of the society.

Amidst the interaction, he mentioned that he is looking forward to fruitful outcomes from this collaboration between IIT and SDI in the best interest of the society and fulfilling the vision put forward by the Hon'ble Prime Minister of India. He mentioned that the collaboration will help the underprivileged sections of the society especially in the mineral rich state of Odisha for enhancing their skillset under the valuable expertise and guidance of IIT Bhubaneswar. He further stressed the need for a greater collaboration between institutions to address the local issues and environment issues in a disaster prone state like Odisha and thereby acting as a role model for the entire nation. He further reiterated that the amalgamation of knowledge and technical skills at IIT Bhubaneswar will pave the path for innovative outcomes not only in a state like Odisha, but also across the globe.

Lastly before concluding, he wished success to all the faculty and students of the institute in all their future endeavours.

Dr. Rajendra Prasad Singh, Chairman, (BoG), IIT Bhubaneswar in his message expressed satisfaction on the momentous occasion and expressed confidence that the institute will play a major role in nation building and pave the path for a modern and decisive India and complimented the Director of the Institute and his team for creating an excellent mix of teaching, learning platforms combined with world class infrastructure for attracting the best brains of the country. He also expressed his heartfelt thanks to Hon'ble Union Minister of Education for his valuable time and presence and also to all the dignitaries present on the historic occasion.

Prof. R.V. Raja Kumar, Director, IIT Bhubaneswar welcomed Shri. Dharmendra Pradhan and the esteemed guests and the Board members besides all others present physically and virtually on this momentous occasion. He expressed his happiness on the Inauguration of state of the art Educational Landscapes at IIT Bhubaneswar which will add to the quality education and housing of the students thereby creating a global class infrastructure at the Institute. He reiterated that the Institute feels proud by constantly raising the standards on all fronts including internationalization of academic programmes, international collaborations on research of high industrial & societal relevance. He said "the Hon'ble Minister was instrumental in bringing the Hon'ble President of India for the 6<sup>th</sup> Convocation and Hon'ble Prime Minister to dedicate the Campus to the nation in 2018, graced the campus on both the occasions, also addressed all as the Chief Guest at 9th Foundation Day and has always been a source of support and strength. He acknowledged the support extended by the Ministry of Education, (MoE), Govt. of India to the institute including support for Phase-II expansion and thanked the National Building Construction Corporation Ltd. (NBCC) for their support in making this possible. Also present on the occasion were Prof. V.R.Pedireddi, Dean Student Affairs, Prof. Sujit Roy, Dean (R & D), Prof. Saroj Nayak Dean (Faculty Planning), Dr Pravas R Sahu, Dean (Academic), Prof. P.V. Satyam, Head, School of Minerals, Metallurgical and Materials Engineering (SMMME), Dr. Sumanta Haldar, PIC Civil Works, Dr Santanu Pal, Warden, Shri. Debaraj Rath, Registrar I/c, faculty, staff and students of the institute and officials of NBCC including other important functionaries and staff of the Institute.



### Hindi Pakhwada

On the occasion of Hindi Diwas, Rajbhasha Ekak and Hindi Literary Society of students Gymkhana "Abhivyakti", IIT Bhubaneswar organized a 14 day (1<sup>st</sup>-14<sup>th</sup> Sept, 2021), "Hindi Pakhwada" in the Campus. Owing to the ongoing pandemic situation, all programmes were organized through the online mode. The motto of the programmes organized was to celebrate the importance of the Hindi language and create awareness about its use in daily life. Dr. Raj Kumar Singh, PIC, Rajbhasa Ekak, IIT Bhubaneswar welcomed everyone to the program.

Speaking on the occasion of the closing ceremony of the program, Prof. R.V. Raja Kumar, Director, IIT Bhubaneswar, said "Hindi is one language which can be spoken across the country, and students should be taught the importance of our National language. At IIT Bhubaneswar, we give due importance to implement the Rajbhasha Policies of the Govt. of India and constantly working towards implementing NEP-2020. I would take this opportunity to emphasize on the simplicity, mellowness and power of Hindi as a language and urge you all to make Hindi a part of your daily office routine. We already have many technical books in the Hindi language, and we are constantly augmenting it for the benefit of our students".

The popular programs for the students and employees were "Aawej- Hindi poetry slam", "Drishtikon- view on different themes", and "Hindi slogan writing competition". Many eminent personalities who are famous for their poetry and contribution to Hindi literature like Prof. Devendra Choubey of JNU, Dr. Ganapat Teli of Jamia Milia Islamia university, Dr. Bhavya Soni of Rajasthan University etc. were involved in judging these events and gave tips to students for improvement. The most important attraction of this year Pakhwada event was the evening with "Hasya Kavi Sri Shambu Shikar", whose laughter comments and Hindi poetry was enjoyed by all. The Central Library and Rajbhasha Ekak of IIT Bhubaneswar jointly organized the "Hindi Book Exhibition" from 1<sup>st</sup>-14<sup>th</sup> Sept, 2021 in the institute Central Library. The motto was to inform and encourage visitors to read Hindi books.

Prof. R.V. Raja Kumar, Director, IIT Bhubaneswar, graced the closing ceremony and congratulated all the winners of the various competitions. The winners of the competition were awarded cash prizes. Also present at the occasion were Shri Debraj Rath, Registrar, Faculty and Staff members. Dr. Raj Kumar Singh, PIC, Rajbhasa Ekak, IIT Bhubaneswar read out the message of Hon'ble Shri Amit Shah, Home Minister, Govt. of India and praised Governor "Abhivyakti" for organizing all the student's events meticulously. The vote of thanks was proposed by Shri Sambhunath Sahoo, Assistant Librarian, IIT Bhubaneswar.





# Mini-Marathon as a part of fit India Freedom Run 2.0

IIT Bhubaneswar conducted a Mini-Marathon as part of the Fit India Freedom Run drive 2.0 on 25<sup>th</sup> September, 2021 (Saturday). The Freedom Run is a new initiative under the aegis of the Fit India Movement and is conceived with a vision to keep ourselves fit while maintaining social distancing during the event. The event was inaugurated and flagged off by Prof. R.V. Raja Kumar, Director, IIT Bhubaneswar.

The "Fit India Movement" initiative by Shri Narendra Modi, Hon'ble Prime Minister of India in making India a Fit Nation is truly a visionary step in this direction and the nation needs to be reminded about it in these times. On this occasion, I would urge the students, faculty, and staff members to continue to practise exercise in their daily routine".

The Institute saw enthusiastic participation of a moderate number of participants comprising of faculty, officers, staff and student community of the institute, the number which was restricted due to Covid-19. The event was organized with strict observation of social distancing norms and COVID-19 protocols in view of the ongoing pandemic. The event was also attended by Dr. Rajan Jha, PIC-Examination, Associate Professor, School of Basic Sciences, Dr. Syed Hilal Farooq, Head, School of Earth Ocean and Climate Sciences, Dr. Olive Ray, Advisor, Sports and Games, Student Gymkhana including other faculty and staff members of IIT Bhubaneswar. The event was coordinated by Dr. Srikant Gollapudi, and Dr. Bankim Chandra Mandal, EAA Coordinator.

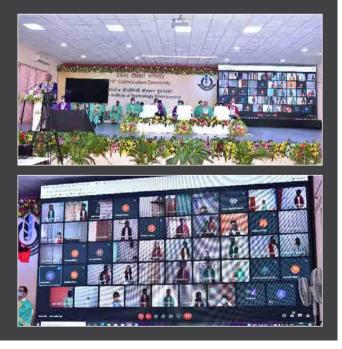




## 10<sup>th</sup> Annual Convocation by Hybrid Mode

IIT Bhubaneswar celebrated its 10<sup>th</sup> Annual Convocation on 20<sup>th</sup> Oct, 2021, in a hybrid mode where students participated live in-person or by online during the current pandemic time. Shri NR Narayana Murthy, Founder & Chief Mentor, Infosys Technologies Limited graced the occasion via video conferencing as Chief Guest and delivered the convocation address. Dr. Rajendra Prasad Singh, Chairman, Board of Governors (BoG), IIT Bhubaneswar presided over the convocation online. Prof R. V. Raja Kumar, Director, IIT Bhubaneswar presented the Convocation report and award the degrees to the students. Total 559 graduates, (256 B. Tech., 36 Dual Degree, 153 M.Tech. 79 M.Sc., and 35 Ph.D.) were conferred degrees during the occasion.

Shri Dinesh Mohanty from B.Tech. (Computer Science and Engineering) was awarded the President of India Gold Medal for topping among all B. Tech. branches, Shri Shivam Handa, from School of Mechanical Sciences was awarded the Direcor's Gold Medal for topping all Dual Degree programmes. Shri Saswat Kumar Panda of M.Tech. (Manufacturing Engineering) was awarded the Director's Gold Medal for topping among all M.Tech. Programmes and Shri Hitesh Gupta of M.Sc. (Atmosphere and Ocean Sciences), School of Earth, Ocean and Climate Sciences was awarded the Director's Gold Medal for topping among all M.Sc. disciplines. Several other medals and endowment awards were also distributed.



## **Rashtriya Ekta Diwas**

IIT Bhubaneswar observed "Rashtriya Ekta Diwas" to mark the birth anniversary of Sardar Vallabhbhai Patel on 31<sup>st</sup> October 2021. The Faculty, Staff members and students actively took the Rashtriya Ekta Diwas pledge on the solemn occasion, in which they pledged to dedicate themselves to preserve the

## Vigilance Awareness Week

IIT Bhubaneswar observed Vigilance Awareness Week 2021, a week long programme starting from 26<sup>th</sup> October to 01<sup>st</sup> November 2021 with the theme "Independent India @ 75: Self Reliance with Integrity – स्वतंत्र भारत @ 75: सत्यनिष्ठा से आत्मनिर्भरता" as mandated by the Central Vigilance Commission (CVC). On 26<sup>th</sup> Oct, 2021, a pledge taking ceremony was organized at the Admin Building. A program was organized at the Community Centre of IIT Bhubaneswar on 1st Nov, 2021. The chief quest of the event was Shri. R. Manga Babu, Chief Commissioner, CGST & Customs, Bhubaneswar, Odisha. The event was presided by Prof. R.V. Raja Kumar, Director, IIT Bhubaneswar Speaking on the occasion, Prof. R. V. Raja Kumar reiterated that IIT system is known for its transparency and ethical standards, while contributing to the nation building. He reminded about the clarion call made by Hon'ble Prime Minister of India for the creation of "Aatma Nirbhar Bharat" wherein we have all engaged ourselves in our own ways for achieving self-sufficiency by the integrity model. He mentioned that it is very essential to have full clarity in mind about the objectives needed for making an organization successful in the best possible time frame and functioning with the highest level of integrity and honesty, without which a goal cannot be achieved in a given time frame. He reiterated that when we work selflessly and with integrity, outcome becomes more satisfying when it is done in the direction of achieving something, fulfilling our duties or offering a service. He urged the faculty, staff and research scholars to incorporate integrity, honesty and sincerity as a part of their daily routine for creation of an enlightened society and thereby paving the path for a corruption free society.

unity, integrity and security of the nation and also strive hard to spread this message among fellow countrymen in the spirit of unification of the country, which was made possible by the vision and actions of late Sardar Vallabhbhai Patel.

Speaking further, he also made a proud mention that the despite the pandemic, the Institute did not close for a single day, worked tirelessly 7x towards protecting and vaccinating the entire fraternity, allowing the students to stay in the campus, successfully conducting the examinations, carrying out hands on practice in the laboratory including performance evaluation, conduct of physical classes for the first time by any IIT, by offering academics in truly uncompromised manner. He also appraised the house about 70 % of the students currently staying inside the campus and also about bringing back the remaining students to the campus. He urged the faculty and staff members to represent the nation by gearing up for new challenges.

Shri R. Manga Babu, Chief Guest on the occasion mentioned about IIT Bhubaneswar being an ideal example of "Self Reliance with integrity" and complimented the charismatic leadership of Prof. R.V, Raja Kumar for making the Institute role model among its peer Institutions. He in his address provided a detailed insight into the theme of Self Reliance with Integrity and reiterated on the need to have preventive measures in place for fighting corruption at all levels and thereby instilling transparency and accountability in the overall functioning. He emphasized on the need for preventive Vigilance by incorporating the integrity model for creation of a vigilant organization. He also explained in detail about the importance of ethics in an organization and urged the employees to make integrity a part of their daily lives by being vigilant to fight corruption and contributing to the nation.



Also present at the occasion were Prof. P.R. Sahu, Chief Vigilance Officer (CVO), Shri Debaraj Rath, Registrar along with active participation by faculty, staff members and students. The meeting ended with vote of thanks.

## **Blood Donation Camp**

IIT Bhubaneswar in association with NSS Odisha organized Blood donation camp in collaboration with Capital Hospital, Bhubaneswar and NGO Sahaya at its Community Centre located in its Campus on 07<sup>th</sup> November 2021. Prof. R.V. Raja Kumar, Director, IIT Bhubaneswar graced the camp and expressed appreciation for the participation of students, faculty, and staff at IIT Bhubaneswar in the Blood Donation Camp.

The drive saw close to a total of 92 people which included students, faculty and staff members coming together to donate blood for the noble cause. Volunteers helped and gave moral support to those donating blood. The samples were carefully sealed and transported to the Blood bank of Capital hospital, Bhubaneswar. This camp helped students in getting awareness about their social responsibilities and showed enthusiastic participation for the same amidst all Covid protocols.

Director, IIT Bhubaneswar expressed gratitude for the initiative taken by the NSS and EAA Coordinators and students and speaking on the occasion he said "we strongly encouraging



## our fraternity towards developing sensitivities towards social causes such as the blood donation drives.

During the pandemic, when the regular procurement of blood and blood donation in general has taken a hit, and also the opportunities to hold such events were drastically impacted. It is commendable that our NSS unit has come forward to organise the blood donation camp like normal times. A drop of blood donated is a life saved, and this has mentioned and guided our faculty, staff and students into an impressive turnout for the benevolent cause. At, IIT Bhubaneswar, we are always committed to the welfare of the society and nation at large".

The programme was coordinated by the NSS coordinator, Dr. Sasidhar Kondaraju, and EAA coordinators Dr. Srikant Gollapudi and Dr. Bankim Chandra Mandal, faculty members of IIT Bhubaneswar. Also present on the occasion were Dr. Ashima Sarkhel, Medical Officer and Shri Swapnil More, VP, Student Gymkhana along with other faculty, staff and students. The medical unit of the Institute was monitoring and supporting the blood donation drive.



## **Constitution Day**

Indian Institute of Technology (IIT) Bhubaneswar joined the celebration of the "Constitution Day" also known as "Samvidhan Divas" organized by the Ministry of Parliamentary Affairs, New Delhi online from the campus of IIT Bhubaneswar, to commemorate the adoption of the Constitution of India as per the directives of the Ministry of Education, Govt. of India. Students, faculty members and supporting staff members attended the address given by the Hon'ble President, the Hon'ble Vice-President, the Hon'ble Prime Minister, Hon'ble Minister of Parliamentary Affairs and Hon'ble Speaker of Lok Sabha. The staff and students of the Institute joined the pledge administered by Hon'ble President of India in the Administrative Building of the Institute.

Also present on the occasion were Deans, Heads of Schools, Registrar IIT Bhubaneswar along with Faculty, Officers and Staff of the Institute.



## Inauguration of School of Earth Ocean and Climate Sciences Building

The new building of IIT Bhubaneswar's School of Earth, Ocean and Climate Sciences was inaugurated by Dr. M. Ravichandran, Chief Guest and Secretary, Ministry of Earth Sciences, Govt. of India on 5<sup>th</sup> January 2022. Dr. Mrutunjay Mohapatra, Director General, India Meteorological Department (IMD) was the Guest of Honor on this occasion. Prof. R.V. Raja Kumar, Director, IIT Bhubaneswar presided over the function. The new building will host about 30 faculty and 100 researcher scholars with multiple laboratories in its fullest capacity.

Dr. M. Ravichandran, Chief Guest and Secretary, MoES, mentioned that the SEOCS at IIT Bhubaneswar is mandated to provide the nation with the best possible services in forecasting the monsoons and other weather/climate parameters, ocean state, earthquakes, tsunamis and other phenomena related to earth systems, for the Public Safety and socio-economic benefits. He also reiterated that the



They are technology, idea and initiative. He elucidated them with an example of cyclone prediction and human loss in Odisha for the period, 1970 - 2020. He exhorted the younger generation to imbibe these three golden principles

school at IIT Bhubaneswar will encourage more and more young researchers for coming into the multidisciplinary studies in Earth System Sciences.

Dr. Mrutunjay Mohapatra, Guest of Honour & Director General, IMD, expressed satisfaction on the momentous occasion and expressed confidence that the SEOCS at IIT Bhubaneswar will play a major role in nation building and will play a nodal role for enhancing R & D activities in the climate sciences and ocean research. He complimented the Director of the Institute and his team for creating an excellent mix of teaching, learning platforms combined with world class infrastructure for attracting the best brains of the country.

Professor Avijit Gangopadhyay from the University of Massachusetts Dartmouth, USA, presently a VAJRA faculty at SEOCS outlined three golden principles for the general benefit of the humanity.



in their lives. He also praised the role of the Director in implementation of the initiatives by his predecessors in realizing the dream of new building for SEOCS.

### 73<sup>rd</sup> Republic Day

IIT Bhubaneswar celebrated the 73<sup>rd</sup> Republic Day in the Institute with patriotic fervour on 26<sup>th</sup> January 2022. The function started with unfurling of the National Flag followed by review of the parade by Prof. R.V. Raja Kumar, Director, IIT Bhubaneswar.

The Director, called upon the BBSites to continue to protect themselves from the pandemic by following social distancing, wearing of masks, sanitizer and giving priority for development of immunity, for some more time and called for performing duty with a renewed vigour in fulfilling the commitment called upon by Shri Narendra Modiji, Hon'ble Prime Minister of India for the creation of "Aatma Nirbhar Bharat".

Also present during the event were Prof. Sujit Roy, Dean Research and Development (R&D), Dr. P.R. Sahu, Dean Academic Affairs, Shri Debaraj Rath, Registrar, and Dr. Srinivas Karanki, President, Student Gymkhana, IIT Bhubaneswar. The Faculty, Staff and students participated in the celebrations by adhering to the social distancing and the COVID-19 protocols in place. The event culminated with the playing and recital of the national anthem. The celebration was coordinated by Dr. Devesh Punera and Dr. Bankim Chandra Mandal, the EAA Coordinators.



## 14<sup>th</sup> Foundation Day

Indian Institute of Technology (IIT) Bhubaneswar conducted the celebration of its 14<sup>th</sup> Foundation Day on 12<sup>th</sup> February 2022. Dr Rajagopala Chidambaram, DAE Homi Bhabha Chair Professor, former Principal Scientific Adviser to Government of India, and former Chairman, Atomic Energy Commission graced the celebration and delivered an outstanding Foundation Day lecture on "Achievements in Indian Science & Technology: Raman Effect to Nuclear Power". Prof Dhanush Dhari Misra, Former Chairman BOG, IIT (ISM) Dhanbad graced as the Guest of Honour on the occasion. The event was presided over by Prof R V Raja Kumar, Director, IIT Bhubaneswar. The event was organized in hybrid more with physical presence as well as virtual presence of the fraternity and guests.

Prof. R.V. Raja Kumar in the presence of Dr Chidambaram and Prof Mishra felicitated the faculty staff and students of the Institute for teaching excellence, meritorious service to the institute, and meritorious service to the student community, respectively on this historic occasion. Those honoured with teaching excellence award includes Dr Nijwm Wary, Dr Srinivas Bhaskar Karanki, Dr Raj Kumar Guduru and Dr Siddhartha Suruj Borkotoky.

Director's Commendation for Meritorious Services were awarded to Dr. Mansoor Ahmed Khan, Medical Officer and the team Medical Unit, shri Pradip Kumar Poddar and Shri Ajaya Kumar Kandi.

Director's Commendation for Meritorious Performance amongst students were awarded to Mr Swapnil More, and Ms. Sravya.

Also present on the occasion were Prof Damodar Acharyya, former director, IIT Kharagpur, Dr. Praveen Kumar Mehta, Distinguished Scientist & DG ACE, DRDO and his team, Prof. P V Satyam, Dean Student Affairs, Prof Saroj Nayak, Dean (faculty), Prof R G Sastry, Shri Debaraj Rath, Registrar, and several faculty members, staff, students of IIT Bhubaneswar and guests of IIT Bhubaneswar.



### **Matribhasha Diwas**

Indian Institute of Technology Bhubaneshwar celebrated the Matribhasha Diwas (Mother Language Day) on 21<sup>st</sup> February, 2022 to commemorate the "Using technology for multilingual learning: Challenges and opportunities", the theme observed by UNESCO this year to discuss the potential role of technology to advance multilingual education and support the development of quality teaching and learning for all on the need for the greater use of mother tongues and other Indian languages for development and progress of the nation. Shri Haraprasad Das, an eminent Poet and Author graced the occasion as Chief Guest through online mode & Prof. Himansu S. Mohapatra, Educationist also graced the occasion as a Guest of Honor. The event was organized in hybrid mode with physical presence as well as virtual presence of the fraternity and guests.

Speaking on the occasion, Prof. R.V. Rajakumar, Director, IIT Bhubaneswar said that the "Mother tongue refers to the language that a person learns without any effort and to which the person has a deep emotional attachment. He said that Bhasha is not just a means for communicating, it has expressions of emotions, heritage and culture of the land attached to it. He further called all to resolve to work towards giving due importance, pay respect and love our Matribhasha's in many walks of our life. I would like to highlight the words of Hon'ble Prime Minister today at the inauguration of the Webinar that, education in the medium of Matribhasha will improve the speed and inclusivity of education. Shri Haraprasad Das, the Chief Guest on the occasion expressed his happiness for being a part of the Matribasha Diwas celebrations at IIT Bhubaneswar and delivered an enthralling speech specifying the significance of International Mother Language Day and also focusing on the importance of preserving, protecting and promoting the Indian languages and native languages of Odisha. Sharing his vast experience in the Odia literature he motivated the students to love and respect their mother tongue but simultaneously to be multilingual as well.

Prof. Himansu S. Mohapatra, the Guest of Honor highlighted the history and importance of the celebration of Mother Tongue Day. He said many countries and states have been separated and established for the sake of mother tongue. The state of Odisha is one of them, which was first state in India created on the basis of language. Addressing the students, faculty and other guests, he said that "It is my proud privilege to say that we are a nation blessed with many mother tongues. Today is a day when we bow to the love for our mother tongues. He called for love and care our languages.

Also present during the event were Prof. P. V. Satyam, Dean Student Affairs, Prof. Sujit Roy, Dean (R&D), Dr. Rajesh Roshan Dash and Shri Debaraj Rath, Registrar, IIT Bhubaneswar. The event was actively participated by several Faculty Members Officer, Staff and Students by reciting stories, articles and poems in their mother tongue. The programme ended with vote of thanks by the Registrar.





## National Science Day and Research 12<sup>th</sup> Scholars Day

Indian Institute of Technology Bhubaneswar observed the National Science Day and its 12<sup>th</sup> Research Scholars' Day on February 28, 2022. The National Science Day is observed to honour the outstanding contribution and invention of the 'Raman Effect' by Sir C. V. Raman. The theme for 2022 is "'Integrated Approach in Science & Technology for Sustainable Future". Prof. V. Adimurthy, ISRO Honorary Distinguished Professor graced the occasion as a Chief Guest through online mode. The event was celebrated on hybrid mode with physical presence as well as virtual presence of the students, research scholars, faculty members and the functionaries of the Institute.

On the eve of the Research Scholars' Day on 25<sup>th</sup> Feb 2022, the institute conducted a poster presentation competition for its research scholars and awards prizes to the best posters. In the poster presentation session, total 42 nos. of Research Scholars showcased their research findings through posters and explained their research works to all.

Speaking on the Occasion, Prof. R. V. Rajakumar Director IIT Bhubaneswar acknowledged the latest initiatives such as the creation of Rs. 76,000 Crore fund for the establishment of a Semiconductor Fabrication facility and actions encouraging Start-ups and private participation in Defence technologies by the Central Government. He also highlighted the recent achievements of the Institute in Semiconductor, IC designs, ARVR, Nano Science and the new initiatives taken up by the Institute in setting up PG courses and facilities in the same as well as the other areas. He called upon the students to develop interdisciplinary skills and better depth in understanding of science for better research and better application for engineering problem-solving. He further called upon for a fraction of Research Scholars to take to entrepreneurship, particularly in high technology areas.

Prof. V. Adimurthy in his address, highlighted the contributions made by Indian Physicists from 5<sup>th</sup> Century AD onwards in the area of space science. He further made a presentation on Chandrayan and Mars Mission of ISRO and, the self-reliance of the country achieved therein in detail. Furthermore, he spoke on the frontiers of space science and technology including interplanetary missions, space colonization and space stations. The Institute also shared the link of the webinar with the schools of Odisha inviting the participation of school children with the objective of rising their inquisitiveness and thought provoking questions.



Also present at the event were Prof. P. V. Satyam, Prof. Sujit Roy, Dr. P. R. Sahu and an enthusiastic participation from several Faculty Members, Officers, Staff and Students. Awards and participation certificate were given to the Research Scholars' who have participated in the Research



Scholars' Day. Mr. Manas Ranjan Sial secured the first prize, the 2<sup>nd</sup> Prize was shared by Mr. Himadri Sekhar Basu, and Kalipada Chatterjee, and the 3<sup>rd</sup> prize was shared by Mr. Uma Shankar Biswal, and Ms. Samina Easmin.

## E-Summit'22

The eighth edition of the event E-Summit, an annual entrepreneurship conclave of IIT Bhubaneswar was conducted under the aegis of E-Cell during March 25-27, 2022. The event comprised of various quest talks, competitions, workshops, internship fair and investors drive to bring the entrepreneurial skills of the participants to the fore. The event witnessed a participation of more than two thousand participants from colleges of various parts of Odisha and other states. Entrepreneurship Summit' 22 started with the theme "Embracing innovation: Reshaping the Future". The inaugural ceremony was graced by honorable chief guest of the event Sri Sandip Ranjan Das, Board director of Sterlite Technologies and Greenlam Industries and EX-CEO Jio, who attend it virtually, and was inaugurated by Prof R.V. Raja Kumar, honorable Ex. Director, IIT Bhubaneswar in the presence of Prof. P.V Satyam, Dean - Student Affairs, Chairperson E-Summit Dr. Madhusmita Das, PIC E-Cell Dr. Gaurav Bartarya, Vice Chairperson E-summit Dr. Raja Kumar Guduru, Chief Coordinator of E-summit Sai Abhinav, and the students of IIT Bhubaneswar. The chief quest Sri Sandip Ranjan Das, highlighting the theme of E-Summit'22, "Embracing Innovation: Reshaping the future", called this generation "The age of innovation and creativity" by aptly pointing out the advancements of technology like Artificial Intelligence, Metaverse etc. He emphasized that every problem is a startup opportunity and urged students not to chase success but to gain excellence. More than 650 participants viewed the inaugural ceremony in offline mode and through online streaming.

E-Summit'22 kicked off with the Cryptocurrency conclave. The panel consisted of famed personalities like Sh. Atulya B, co-founder BuyUcoin, Sh. Karthik Balasubramanian, Cofounder KIP foundation and others. The panel started with an introduction of cryptocurrency to the audience and discussed about all the important aspects of the crypto world. More than 500 participants viewed the cryptocurrency conclave through online streaming. The day also witnessed the events like startup internship fair, invest up - the event that presents a one stop solution to all startups that are in need of funding and mentoring, Enigma - the competition to bring up the ability to analyze and come up with the solution to a real time problem, Kreo, Insignia and Epigramma. The day concluded with the second round of Entrepreneurial Ideation. All these events saw a combined participation of 250 students and 15 startups. About 70% of the participants were from outside IIT Bhubaneswar.

The other important events of the E-Summit were B-plan (a business plan making competition), Innovation Expo - an event to showcase innovative project or ideas, B - Quiz (a challenging test through the world of business), Startup Internship fair, Marcatus - the event that brings out the marketing acumen of an Individual, along with Fintech entrepreneurship conclave, Crypto Wars and IPL auction. The E-Summit'22 culminated with the interaction of the participants with Sh. T. Muralidharan (Chairman FICCI Telangana and Founder Chairman, TMI Group), the Chief Guest of the valedictory ceremony.





## Wissenaire

IIT Bhubaneswar successfully inaugurated the 11<sup>th</sup> edition of the popular Techno-management student fest "Wissenaire'21", based on the theme, "TRANSHUMANISM". The event was inaugurated by Dr. V.K Aatre, Former Director-General, Secretary, Department of Defence R&D, Defence Research

and Development Organization (DRDO) and Chief Guest of the event via video conferencing. The event was presided over by Prof. R.V. Raja Kumar, Director, IIT Bhubaneswar and coordinated by MNSS Shashank, Chief Coordinator, Wissenaire'21. Speaking on the occasion, Prof. R.V. Raja Kumar, Director, IIT Bhubaneswar while welcoming the participants said that the outbreak of the pandemic posed several challenges on all fronts across the globe, but has been responsible for rising of innovative spirits and emergence of new age technologies in the country.

IIT Bhubaneswar has been successful in making several innovations, developed mechanisms for conductina conventional pen and paper exams online and applied the same very successfully in carrying out the performance evaluation of the students, besides several others, in offering academics timely at uncompromising standards during the ongoing pandemic. He said that people dreamt, dreams took shape as fiction and then the same was realized over time through imagination, creativity and quest for developing systems and processes. Following the same spirits, the students too raised to organize the pre-events of E-Summit, Wissenaire and Alma Fiesta in hybrid mode. He further complemented the students for conducting Wissenaire '21 in hybrid mode. The four day event comprises of new workshops, exclusive lectures by tech-giants and innovators, and inspiring sessions thereby emerging as fest par hitherto in East India. He stressed that this year too with a unique theme in place, Wissenaire'21 is sure to enthral the audiences.

Chief Guest Dr. V.K Aatre, Former Chairman and Secretary, DRDO spoke about the potential of new age technologies in various domains in solving some of the crucial challenges associated with science and technology. He quoted some real time experiences and gave valuable insights on achieving immortality, talked at length on technology evolution that happened over the years thereby emphasizing on the importance of innovation and the need for constantly updating ourselves in science and technology for shaping up the future. He reiterated that as we improve our technology beyond the cutting edge of today by keeping the world going by enterprise all over the place on the last frontier. He also reminded the students of the fact that nature was the one that created us, and it is what we as humans imitate and also for being our best teacher. He gave a strong message that we as humans may not be able to surpass the nature despite the technological revolutions. He complimented the students for coming up with 'Transhumanism', a well thought of futuristic theme. He also put forward interesting answers to the very meaningful questions put forward by the students of the Institute, in a way truly inspiring and motivating all the participants of the event in its true sense.

The four day techno management fest (01<sup>st</sup> – 04<sup>th</sup> April, 2021) will include interesting workshops and competitions, sessions and talks on technology and innovations along with series of talks on the second and third day tagged "TekNite" during the four days of the fest. The "Teknite" will witness the likes of Mike Radice, Managing Director of Chartacloud Robotic, Avinash K Singh, Adviser and Founder of Indian Future Society (IFS), Santhosh V Hulawale, CEO of INDRO Robotech Ltd. and a virtual tour to ISRO's space application centre at Ahmedabad.

Also present at the event were Col (Dr) Subodh Kumar, Registrar, Dr. Sankarsan Mahapatro, President Student Gymkhana and Dr. Pattabhi Ramaiah Budarapu, Chairman, Wissenaire, The inaugural ceremony concluded with a vote of thanks by, MNSS Shashank.





### International Women's Day

Indian Institute of Technology Bhubaneswar celebrated the International Women's Day on 8<sup>th</sup> March, 2022 to honour the social, economic, and cultural achievements of women. This year, National Implementation Committee, chaired by Hon'ble Home Minister, has approved the event "Women's Day" on 8<sup>th</sup> March, 2022 to be celebrated by Ministry of Women and Child Development as part of the Azadi ka Amrit Mahotsav (AKAM).

A few events were organized by the Women Welfare Committee (WWC) of the Institute in collaboration with three student's societies, namely, Panacea: the Literary Society, Cinewave: the Filmmaking Society and Kalaakriti: the Fine Arts Society on 5<sup>th</sup> and 6<sup>th</sup> March 2022 before reaching to its culmination on 8<sup>th</sup> March 2022 with the celebration of International Women's Day. This year's UN theme for the International Women's Day is "Gender equality today for a sustainable tomorrow". The programme was organized in hybrid mode with the physical presence as well as the virtual participation of the guests and Institute fraternity.

Mrs. Prativa Mohapatra, Vice-President & Managing Director, Adobe India, graced the occasion as the Chief Guest through online mode and Dr. Minati Behera, Chairperson, Odisha State Commission for Women graced the occasion as the Guest of Honour. The event was presided over by Prof. R. V. Raja Kumar, the Director of IIT Bhubaneswar.

The Guest of Honour, Dr. Minati Behera expressed her happiness for being a part of the International Women's Day 2022. She also expressed that there are innumerable contributions of womanhood on their course of journey of life by giving examples from the daily life in a straightforward way. She further opined on the truth that our nation gives a lot of importance to girl/women education because they are an integral part of nation development and is

Prof. R.V. Raja Kumar, in presence of the Guests distributed the prizes to winners of the competitions. The program also included a short movie telecasted by the students of IIT Bhubaneswar and a few cultural activities. Aaroh, the musical society of IIT Bhubaneswar paid a small tribute to Smt. Lata Mangeshkar Ji. The program ended with the Vote of Thanks by Dr. Sasmita Barik, Chairperson, Women Welfare Committee, IIT Bhubaneswar. Also present at the event were Shri. Debaraj Rath, Registrar, Prof. P.V. Satyam, Dean, Students Affair, Prof. Sujit Roy, Dean Research and Development and several faculty members, staff and students of IIT Bhubaneswar.dedicated to encourage and support women empowerment nationally and globally.



Speaking on the occasion in his presidential address, Prof. R. V. Raja Kumar, Director, IIT Bhubaneswar spoke about the necessity to carry consciousness about making gender parity as a tradition within the society. Women are involved in sustainability initiatives around the world, and their participation and leadership results in more effective climate action. Without gender equality today, a sustainable future, and an equal future, remains beyond our reach. He lauded the choice by the Ministry of Education (MoE) to extend the supernumerary seats for women candidates to at least 20% has actually raised the female scholars share from the paltry 8% to 20% within the educational year 2020-2021. It will improve the hopes to seek out a greater number of girls in powerful roles in all walks of life, in the near future. He also mentioned that today the country has come up with a mechanism for rise in seats of women for education, so we look forward to have an increasing ratio of women going forward. He further added that there is some discrimination happening in certain parts of society but nevertheless the concern for gender parity should start at home, so everybody at IIT Bhubaneswar should commit ourselves to gender parity in all our functioning, admission processes, selection process and providing equal opportunities for women. The Chief Guest of the evening, Mrs. Prativa Mohapatra expressed her heartiest congratulations to the students and faculties for toiling hard to reach IIT Bhubaneswar, the elite class and Institution of National Importance in the country along with special mention to Prof. R V Raja Kumar, Director, IIT Bhubaneswar for his dynamic leadership and for being culturally oriented. She appealed to the audiences to focus on the communication skill and not to give importance to the biasedness creature. She further added that the contribution of women and girls around the globe, who participate in their communities promoting climate change adaptation, mitigation, and response, in order to build a more sustainable future for all. She also expressed that our country believes woman as the engine of growth and it is committed to advance the rise of women nationally and globally. She interacted with the students and advised them to emphasize on creativity pursuit in addition to the academic/ technical pursuit in learning. She finally concluded that with a golden statement that "Life is not a 100 metre dash, it's a marathon", so we need to be more advanced in every aspect of life.





## Ek Bharat Shreshtha Bharat

EBSB Club IIT Bhubaneswar organised cultural exchange programme with NITIE Mumbai



The "Ek Bharat Shrestha Bharat (EBSB)" programme, is an idea of a sustained and structured cultural connect between denizens of different regions was mooted by Prime Minister Shri Narendra Modi during the Rashtriya Ekta Divas held on 31<sup>st</sup> October, 2015, to commemorate the birth anniversary of Sardar Vallabhbhai Patel. Hon'ble Prime Minister propounded that cultural diversity is a joy that ought to be celebrated through mutual interaction & reciprocity between people of different states and union territories so that a common spirit of understanding resonates throughout the country.

IIT Bhubaneswar has been organising number of informative and cultural events under the aegis of Ek Bharat Shrestha Bharat (EBSB) and has formed an EBSB club consisting of students, staffs and faculty members to promote the spirit of national integration through a deep and structured engagement between paired states Union Territories (UT), for enabling people to comprehend and admire the diversity of the nation, thus nurturing a sense of common identity. As per the guidelines of MHRD, Odisha state has been paired with state Maharashtra, hence IIT Bhubaneswar being an institute of higher education in Odisha has been paired with IIT Bombay and NITIE Mumbai in the state of Maharashtra.

Continuing with the legacy of conducting EBSB events, EBSB club of IIT Bhubaneswar is regularly conducting online literary and cultural exchange programmes including quiz, painting competitions with the institute of higher education in the state of Maharashtra though out the year on monthly basis. Also, many students of IIT Bhubaneswar have participated in completions conducted by NITIE Mumbai's EBSB club and received prises for painting, essay writing competitions Ms. Anuska Singh grabbed the 1<sup>st</sup> prize in dance competition organised online by NITIE Mumbai in association with IIT Bhubaneswar. The event was coordinated EBSB team members Dr. Rajesh Roshan Dash (Coordinator), Dr. Manaswini Behera and Dr. Seema Bahinipati (Co-Coordinators).

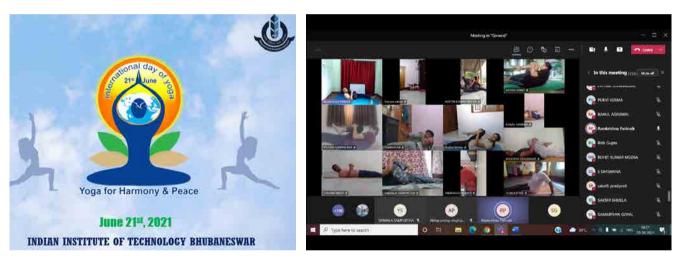
## **EAA Activities**

Several activities were organized by EAA division during the last year. Some of the events are listed here.

- » International day of Yoga
- » Blood donation drive
- » Independence Day
- » Republic Day
- » E-waste collection drive
- » Plantation drive

#### Extra Academic Activities by undergraduate and dual degree fresher students

The major activities of EAA started in offline mode during the semester. The international day of yoga was celebrated with much enthusiasm. Swami Achalananda Giri of Prajnana Mission was the chief guest. More than 100 faculty, staff and student members took part in the event following covid-appropriate behavior.



Participation of students in international day of Yoga

IIT Bhubaneswar conducted a Mini-Marathon as part of the Fit India Freedom Run drive 2.0 on 25<sup>th</sup> September, 2021 (Saturday). The Freedom Run is a new initiative under the aegis of the Fit India Movement and is conceived with a vision to keep ourselves fit while maintaining social distancing during the event. The event saw the participation of about 90 members from the faculty, staff and student community of IIT Bhubaneswar.

IIT Bhubaneswar in association with NSS Odisha organized Blood donation camp on 7<sup>th</sup> November in its community centre.

The event was also in collaboration with Capital Hospital, Bhubaneswar and NGO Sahaya. A total of 92 students, faculty and staff members participated in blood donation. The NSS section organized the outdoor activity of tree plantation around the main building on December 18<sup>th</sup> 2021. The E-waste collection drive was conducted in February, 2022. A good number of campus residents took part in these activities.



Blood donation, e-waste collection drives and offline extra academic activities for students



## **Unnat Bharat Abhiyan**

#### Uba Science, English, Mathematics (Sem.) Online Classes

The UBA team has been conducting **online classes on Science**, **English, and Mathematics**, called **"UBA SEM Classes"** for the students of Class V - VIII of the adopted villages during **November 2020 to January 2022**, when COVID pandemic had hit us hard. With hand-picked experiments, examples, relevant videos, and good quality teaching, this program was already quite popular with the students of the adopted villages and other parts of Odisha as well. Besides academic education, we also imparted moral education via stories and videos to build a better India. Students' learning was enriched by regular assessments and personal guidance during this pandemic period.

#### 75<sup>th</sup> Independence Day Celebration

On 15<sup>th</sup> August 2021, India celebrated its 75<sup>th</sup> Independence Day with pride and elation across the country. IIT Bhubaneswar observed the day with dignity and euphoria to inspire the young minds of the institute. On this auspicious occasion, the UBA team conducted a virtual program for the enrolled students from different schools of Odisha. The objective of the program was to enlighten students about the rich history of India and inspire them to actively participate in the welfare of our society. In view of that, the UBA team organised multiple co-curricular activities among the students through online mode. Several activities such as drawing, debate, essay writing and one-minute-thought sessions were conducted based on relevant social themes with an innovative approach. The virtual Independence Day program was conducted successfully by the UBA team members.

#### **Book Donation Drive**

COVID pandemic took a toll on the school education as students had to switch to online classes and were glued to a mobile or a computer screen for the most part of the day. Not all kids were fortunate to have access to a smartphone during these times. For almost all the kids, the pleasure of reading a book was lost. In order to rekindle the joy of reading a good book in these young minds, the UBA team organised a book donation drive in September-October, 2021 for the kids studying in LKG to Class X of the five adopted villages near our institute, namely, Argul, Khudupur, Padanpur, Podapada, and Kansapada. Thanks to the generous contribution by the IIT Bhubaneswar fraternity, we collected about 200 books, spanning from story books to encyclopaedias, sanitised them and delivered them to the Principals of Argul, Khudupur, Podapada, Padanpur schools.

#### **Breast Cancer Awareness Drive**

The UBA team and the techno-management team of our institute, "Wisseanaire" jointly organised a Breast Cancer Awareness Drive, named "PINK Aware" at Argul High School on October 24, 2021 for the five adopted villages, Argul, Khudupur, Padanpur, Podapada and Kansapada as part of the UBA Programme. The event was organised in collaboration with Carcinova Cancer Hospital, and Umeedein, Paranas NGOs. The event was inaugurated by Prof. P.V. Satyam, Dean Student Affairs, IIT Bhubaneswar. As part of the drive, awareness lectures and screening camps were organised. The drive saw an active participation of people from all the five villages. The participants were provided with goodies ranging from sanitary pads, masks, refreshments, pamphlets that contain information about cancer prevention and treatment, water bottles and paper bags. This camp helped villagers in getting awareness about cancer and helped in inculcating the value of social service among students.



## Students' Activities

## **Socio-Cultural Council**

#### **PANACEA** Report

#### **Organization of Events**

In the session of 2021-2022, a plethora of literary events were organized over various genres. These events not only ensured massive participation but also helped the club to multiply its reach. The details of each event are as follows: -

**Intra-Society Debate:** This event was held for the 1<sup>st</sup> year Panacea members in which different topics were given on the spot, and the senior members judged the event.

**Cosmic Clause:** On the occasion of International Astronomy Day, this article writing competition was held in collaboration with "Nakshatra."

**GD Competition:** This event was held for the students of the 2020 batch. Topics were given on the spot. A similar event was organized for the society members on 75<sup>th</sup> Independence Day.

Article Writing Competition: This national-level competition was organized by Panacea in collaboration with Souls for Solace of our college and the literary societies of NIT Warangal and Chennai Mathematical Institute. The topic for this competition was- "Should Animals be used in Experiments?"

**In Pursuit of Dispute:** This national-level debate competition was organized in 3 rounds in which a total of 32 students from different colleges participated. The event was judged by Dr. Amrita Satapathy from our college and Dr. Anita Singh from BHU. The top three debaters were rewarded with books worth approximately 2200 rupees.

**Optimizing the Functionality:** A Case-Study Competition: This competition was organized in collaboration with our Socio-Cultural Council on Efficient Management of a hypothetical College in this pandemic time. Students were asked to present a realistic analysis of all the SOPs that need to be followed and facilities provided while taking minimum risks.



## **Literary Events during Winter Fiesta 2021**

- » Devil's Advocate: Participants had to defend a real-world criminal. It was the first Socio-Cultural event of the Winter Fiesta. 4<sup>th</sup>-year members of Panacea judged it.
- » We Dissent Team Debate Competition: It was a Team debate competition in which students participated in Groups of 2, and the format of Parliamentary Debates was followed.
- » Shipwrecked: This was an exciting event in which participants were supposed to be stuck in a sinking ship, and they had to convince fellow participants why they deserved to survive. They were assigned interesting realworld characters to represent in this competition.
- » Verses: English Poetry Slam: English Poetry Slam was an excellent opportunity to provide a stage for the best poets of our college. Not just B. Tech. But students from different batches came to participate in this competition. Amrita Satapathy Ma'am judged it.

**Women's Day Debate:** An intra-college debate was organized in collaboration with the Women Welfare Committee of our college to celebrate Women's Day.

#### Literary Events during General Championship:

- » Asian Parliamentary Debate: This interesting event was the first event of GC 2022. The participants had to speak on the given topic for 60 seconds without hesitation, repetition, or deviation.
- » Just a Minute: This interesting event was the first event of GC 2022. The participants had to speak on the given topic for 60 seconds without hesitation, repetition, or deviation.
- » Wiki-Tracing: It was an interesting game where the participants had to navigate from a given page in Wikipedia to another given page using hyperlinks only.

**WORKSHOPS:** We strongly believe in upskilling the students, and with this belief, several workshops have been organized to help students gain more knowledge.

 CAT Guidance Session: Two alumni of Panacea, Mr. Soumyajit Ghosh, and Miss Sampurnah Borah, shared their keys to success in CAT and discussed the scope of an MBA as a career opportunity. A total of 197 participants turned up in the session.

- MUN Workshop: This workshop was organized for the members of Panacea. The Ex-Secretary of Literary Society, Ritik Roy, took this workshop for 1<sup>st</sup>-year members of Panacea.
- 3. Workshop on Accomplishing Effective Communication: Whether it be writing professional emails, speaking confidently in public, Creating Modern PPTs, or tackling interviews, all the aspects of Effective Communication were covered in this workshop organized in collaboration with Wise up Communications.



- 4. Session on Writing a Research Article: In collaboration with Wise up Communications, Panacea organized a session about 'Writing a research paper and getting it published. This session was especially beneficial for dual-degree students. A total of 137 participants turned up for the workshop.
- Asian Parliamentary Debate Workshop: Our alumni Shobhit Sahoo organized a workshop covering the basics of Parliamentary Debates for the members of Panacea.

## CONTENT CREATION: For the Instagram page of Panacea

- 1. Posters of the literary event and workshops were posted regularly.
- Connect Episode-3: This time, we interviewed Dr. Soumya Prakash Dash, an assistant professor in SES. Dr. Dash shared his memories of his college life at IIT Bhubaneswar. He also talked about his days at IIT Delhi while pursuing a Ph.D.



- **3.** Poem on Foundation Day: Exhibiting the glorious journey of IIT Bhubaneswar since 2008, a poem was written and presented by Panacea Members as a part of the Foundation Day Ceremony.
- **4.** In The Chaos (Poem): This poem was written by one of the Panacea members, Sarita Subhadarshini, focusing on the Chaos Caused by the Pandemic.
- 5. The Winner (Poem): This poem was written by one of the Panacea members, Akshat Rampuria, throwing light on how much we lose while craving for success.
- 6. The members of Panacea posted Anime Reviews on Instagram post.



## **Participation in Literary Event**

We not only focused on organizing the events but also ensured participation in literary events of other colleges as well.

- Expostuletz by NIT Agartala: National debate competition was organized by NIT Agartala, and one of our members, Ayush Kashyap, achieved 2<sup>nd</sup> position in this competition.
- Dais Interdiction by Army Institute of Technology, Pune: National debate competition in which more than 230 students participated from all across the nation; one of our members, Ayush Kashyap, achieved 3<sup>rd</sup> position in this competition.
- 3. International Model United Nations: 10 members of Panacea participated in IMUN, in which people from different countries participated, and one of our members, AyushKashyap, achieved the "MostOutstandingDelegate" award.
- IIT Roorkee MUN: Three students participated in this reputed national level MUN and one of our members, Ayush Kashyap, achieved 3<sup>rd</sup> position.
- 5. Kalamkar-English Poetry Competition: Two students of ours participated in this national level English Poetry

Competition organized by the Literary Club of IIT ISM Dhanbad

6. One member also participated in the Jadavpur University MUN.



## Abhivyakti Report

#### **Events and Competitions**

**Hindi Essay Writing Competition:** (23 May 2021) Article Writing Competition was organized in collaboration with Nakshatra, The Astronomy Society of IIT Bhubaneswar.

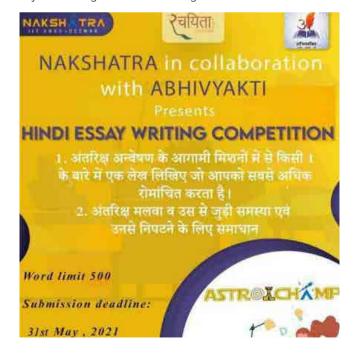
**Group Discussion competition:** (5<sup>th</sup> June 2021) Group Discussion was organized on different topics related to education and students from BTech, Mtech, as well as PhD, participated. The judges for this event were two Professors of our college, Dr. Raj Kumar Singh and Dr. Rajan Jha.

**ALFAAZ** - National Level Poetry Competition: (18 August-21 August 2021) We organized this national level poetry competition in 2 rounds. 72 students from different colleges in our country participated in this competition. It was judged by famous poet Dr. Gayatri Mavuru

**Interview of Chetan Kandpal:** (28 October 2021) As a new initiative, one of our member interviewed a hindi author in an online Interview which was posted on our social media pages.

Asian Parliamentary Debate: (26 June 2021) This event was organized as a part of Azadi ka Amrit Mahotsav. The topic for this debate was- ""Would Uniform Civil Code truly unite India?". This event was judged by four final-year students of Abhivyakti

Vaad Vivaad Pratiyogita: (17 October 2021) As a part of Azadi Ka Amrit Mahotsav, a Hindi debate competition was organized in room no. 213 of SIF for the sophomores of our college. It was a 1 Vs 1 debate where topics like Demonetization and Kashmirrelated issues were extensively discussed. It was judged by Dr. Raj Kumar Singh of our own college.



## Hindi Pakhwada

This is one of the important event of Abhivyakti and following events were conducted in Hindi Pakhwada:

- Shastrartha-National Level Debate Competition: (1 September- 5 September 2021) We organized this national-level debate competition in which 23 students from different colleges of our country participated. This competition was judged by two Professors of JNU, Dr. Ganpat, and Dr. Devendra Choubey. This competition was organized in two rounds.
- 2. Aaveg National Level Poetry Competition: (1 September-5 September 2021) We organized this national-level poetry competition in which 28 students from different colleges in our country participated. This competition was judged by famous poet Dr. Bhavya Soni. This competition was organized in two rounds.
- 3. Drishtikon National Level Short Speech Competition: (1 September-3 September 2021) We organized this national level short speech competition in which 13 students from different colleges of our country participated. This competition was organized in two rounds in which a picture was shown to the participants for 30 seconds and then they had to speak about that picture for 1 minute.
- **4. Kavya Sandhya:** (4 September 2021) Shri Shambhu Shikhar, the Comedy Poet who is known all across the world, performed for us through MS Teams.
- 5. Intra College Hindi Quiz: (5 September 2021) This competition was organized in collaboration with the Quiz Club of our college. The medium of questions was Hindi. Also, some questions related to Hindi Poets and Authors were asked in this quiz.
- 6. National Level Slogan Writing Competition: (5 September 2021) we organized this national level slogan competition in which 15 students from different colleges of our country participated. This competition was judged by Professor Akhilesh Kumar Singh. The topics for slogan writing were Nationalism, Women Empowerment and Sanitation.



### **Events and Competitions in Winter Fiesta**

**Just a Minute Competition:** (17 December 2021) The participants had to speak for 1 minute on a topic which was assigned on the spot.

Makar Sankranti Special Meeting: (15 January 2022)

A special meeting was organized where the members of Abhivyakti, especially the Post Graduates shared their memories related to this day. Manobhavna: Hindi Poetry Slam: (20 December 2021) Students of our college recited their Hindi Poems on the stage of Community Centre.

**Hindi Poetry Workshop:** (18 December 2021) The senior members of Abhivyakti shared their experience in Poetry with the Juniors.

## LITSPREE 2.O

Lok Sabha (National Level Mock Parliament) : (12-13 March 2022) It was a joint effort of both Panacea and Abhivyakti where the Agenda was- Analyzing the Foreign Policy of India since Independence and Discussing the Future Prospects.



**Kavyanjali:** (16 March 2022) Four famous poets of India were the Guests for this poetic evening. Azhar Iqbal, Manzar Bhopali, Hasan Kazmi and Satyendra Satyarthi presented their poems and shayaris.

Reach - more than 150 audience



## **General Championship 2022:**

Adalat: (21 March 2022) It was a modified version of 1 Vs 1 Presidential style debates where the participants were judged on the basis of Individual performance.

**Kavya-rachna:** (25-31 March 2022) A poem writing competition was organized where 15 entries were allowed per team of GC.



#### **Providing Covid-19 Assistance resources**

List of verified Covid19 resources were provided to all the people in need, in and outside IITBBS community by providing them with contact details and website links where people can ask for help for blood plasma, availability of oxygen and ventilator beds.

#### Provide a Hand for a Paw

Under this initiative, participants were asked to send their snaps of feeding street animals and birds which were starving during these lockdown periods and while taking any sort of care of them.

All the participants were given Certificate of Appreciation for their contribution, and their deeds were shared on our social media handles.



#### Flood Relief Fundraiser for Maharashtra flood

In order to raise funds in the form of necessary Items needed by the Flood Victims in Maharashtra this Donation Drive was organized in collaboration with DonateKart, where people from various areas can donate as per there wish to help the victims of flood.

#### **Oath Taking Ceremony**

On the occasion of Gandhi Jayanti, Souls for Solace in collaboration with Panacea and Abhivyakti had conducted a Cleanliness Oath taking ceremony to pay homage to our Father of Nation, and also to learn to have a self-realization on the importance of cleanliness. The event was held in the basketball court and was captured by Clix

Date- From 30<sup>th</sup> July 2021 onwards.

Participation- Students

No of Participants- 100





#### **Session On Mental Health Awareness**

On account of World Mental Health Day on 10<sup>th</sup> of October Souls for Solace conducted an interactive session with students of our campus identifying and solving difficulties faced by the students which make them mentally disturbed. The session was held in hybrid mode hosted by Dr. Gagandeep Kaur, student counselor of IIT Bhubaneswar.

No of Participants- 100+ Participants (Online+Offline)

#### First Aid Workshop

#### "Accidents do happen; make FIRST AID as your best mate"

Souls for Solace in association with St.John Ambulance Orissa conducted First Aid Workshop on 21<sup>st</sup> December 2021. The workshops were held in two batches at the Community Center.

All the participants were given Certificates of Participation.

#### A Gift of Gratitude

On behalf of the entire student community, Souls for solace collected the share from all the students and faculties interested to bring out festive happiness in our caretakers. We distributed about 70Kg's of sweets in our caretakers and some gifts for them.

#### **Food Distribution Drive**

"We must find time to stop and thank the people who make a difference in our lives." - **J F Kennedy** 

On account of New Year, Souls for Solace distributed one time meal to all the construction workers of our institute of nearly about 700 people.

#### Candle March on Black day of India

S4S pays a heartfelt tribute to the Pulwama attack warriors in the form of Candle March

Date- 14/02/22

Participation- Open Event

No of Participants- 200





### Menstrual Hygiene Awareness and Sanitary Napkins Distribution Drive

Drive was conducted for the Women Working Staff inside the campus on account of Women's Day to make them aware about menstrual health and proper hygiene techniques. Also we distributed sanitary napkins and a glucose pack explaining them its importance and use.

Date- 08/03/22

Participation- Women staff in campus

#### Children's Fest - "Bachpan Ka Rangmanch"

Orphan Kids from Four Orphanages were called to campus and a whole day was made full of fun by having lunch for them, refreshments and many gifts were given to them.

Date- 08/04/22

No. of Children- 130



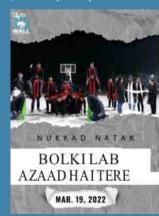
### PRODUCTIONS

**Dussehra Production (15/10/2021):** A Short Skit was performed in presence of Students & DEAN SA

Winter Productions (28/12/2021): Stage Play "kanjoos", a satire on greed was conducted.

#### Holi Productions (19/03/2022)

NUKKAD NATAK: Nukkad Natak "Bol ki lub azad hai tere", was an highly ambitious and anticipated event was praisedby everyone.



Winter Fiesta: 10/12/2021- Dumb Charades competition was held among the students.



**Foundation Day (12/02/2022):** Stage Play "chitthi", talked about illiteracy: On the 14<sup>th</sup> Foundation day of IIT Bhubaneswar, a cultural evening was organised by the Socio-Cult council, rejoicing the legendary journey of our college which stood against many obstacles, raised over every trifle, no matter if it is FANI or Covid 19. Our society performed a stage play to create awareness towards Illiteracy.

#### THE FOURTH WALL (DRAMATICS SOCIETY) Monologue by Mayank Sawarna : SOLDIER



### GENERAL CHAMPIONSHIP 2022

Dramatics Events Held By "The Fourth Wall" In General Championship 2022: (10/03/2022)

#### **Dumb Charades :**

- » It was an Inter branch Competition which was to be played in teams.
- » Students played with lot of enthusiasm and cooperation.

**Skit Competition (13/03/2022):** This competition was a group competition in which each branch have to perform their respective skits of whichever topic they want.

**Emotional Damage (26/03/2022):** This event became the major topic of discussion after been taken place.





### **CINEWAVE REPORT**

Tasks were assigned by governors to all the members. 3 Teams were made and had to make a short film with no dialogues under guidance of senior mentors. Final videos were submitted to governors.

One silent short film, with no dialogues, based on situation of Covid and pandemic was made and uploaded in our Instagram and Facebook. Brace Up, a silent short film was made and submitted for Spark Short film Contest by Ram Gopal Verma.

#### COVERAGE

#### Dusshera Evening Live Streaming and Coverage.

Cinewave Covered and Streamed the Dusshera Evening event through MS Teams for all students/faculty.

#### Exquis Extravaganza' Streaming and Coverage.

Cinewave Covered and Streamed the 'Exquis Extravaganza' Evening events through MS Teams for all students/faculty.

#### **Diwali Night Coverage**

Cinewave Covered the Diwali Night Celebration and Rangoli Making Competition organised by Kalakriti

#### 14<sup>th</sup> Foundation Day Celebration coverage

Cinewave Covered the 14<sup>th</sup> foundation day celebration and performances of the event.

#### SONG COVERS

We have made 4 song covers in collaboration with Aaroh.Song covers were edited by cinewave.



#### Workshops

Cinewave organized several workshops in video editting, cinemetography and script writing. Cinematography Workshop and video editing workshop was organised by Cinewave under Winter Fiesta Events which had 45 and 64 number of Registration/Participation respectively.Video Editing Workshop and script writing workshops was conducted by Cinewave under for all the first years prior to Inductions. Scriptwriting software like Cletx was taught along with basic principles of scriptwriting.

#### **General Championship Events**

Cinewave Covered the inaugural event of General Championship 2022. Cinewave covered the competitions/ events in socio-cultural, sports and technical council conducted under General Championship 2022. Cinewave recorded and released the Interview of GC Coordinators in collaboration with Oracle.

#### **FRESHER'S INTRO VIDEO**

Fresher's' Introduction Teaser video was released by Cinewave on Cinewave and Sociocultural council Instagram page on 12 March'2022. Cinewave released the most awaited video of a fresher's life that is the Fresher's Introduction 2021 video intro on Cinewave and Sociocultural Council Instagram page on 29 March'2022.



#### FAREWELL

Cinewave has made all the required videos for the Farewell of the passing out batch in 2021.



#### **Society Introductions:**

Students' Gymkhana Society Introduction Video was made by Cinewave and was premiered on its YouTube Channel for the Fresher's



#### CAMPUS TOUR VIDEO



Cinewave made a bird's eye view campus tour video of our campus.

### **D-Gang**

#### Antakshri:

This is a dance cover performed by the first year inductees of the society with the songs being chosen based on the classic game of Antakshari.

- » The cover was also posted in D-Gang's Instagram page.
- » Date: 18 July 2021



#### Independence Day Tribute:

A classical dance cover was performed as a tribute to the brave fighters of our nation who sacrificed their lives for India's independence.

- » The video of the cover was uploaded in our YouTube channel.
- » Date: 15 August 2021



#### **Hip-Hop Workshop:**

This open workshop was organized by our society members to teach dance enthusiasts the dance form of Hip-Hop.

- » The dance form was taught from its basics with the help of a wellconstructed choreography.
- » Number of participants: 45
- » Date: 13 December 2021



### Winter Fiesta Productions

As a part of the closing ceremony of the first edition of Winter Fiesta, an energetic performance was performed by the members of D-Gang.

- » It involved dances of various forms such as hip-hop, classical etc.
- » Date: 30 December 2021

Foundation Day Productions: A cultural performance covering many dance forms was performed by the members of the society on the account of the  $14^{th}$  Foundation Day of the institute.

» Date: 12 February 2022

**Solo Dance Competition:** It is an inter-branch solo dance competition conducted by the society under General Championship. The duration was 2 to 3 minutes for classical performances and 1.5 to 2 minutes for non-classical performances. The judges of the competition were Nomitha Gattu, Yamini Yamali and Sindhu Krishna.

**Spring Productions:** The members of the society put up an iconic dance performance during the Informal Night organized by Wissenaire.

» The performance included dance of various forms and styles to songs of different languages and genres.

» Number of participants: 54

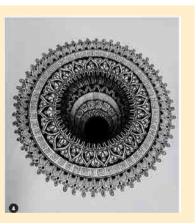
### **KALAKRITI REPORT**

Mother's Day Post: Paintings made by members of Kalakriti on the occasion of Mother's Day.



#### Mandala Post:

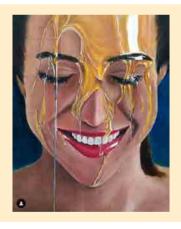
Mandala painting is a symbolic picture of the universe, the circle that represents wholeness, totality, infinity, timelessness, and unity. Mandala painting using micron pens.



**Painting Post:** Hyper lapse and painting of watercolour landscape



Canvas Art: Hyperrealistic art done on Oil on Canvas



#### INKTOBER

Inktober is a Month-long Global Challenge for all artists. There is theme for each day throughout October every year. Kalakriti members have all participated in this fun challenge and posted artworks of members every day in October.



### **DIWALI CELEBRATIONS**

Inter Hostel Rangoli Making competition: A rangoli making competition on the eve of Diwali

**3D Render:** A 3D render model of the decorations done at CC during Diwali.

Live Sketching Event: An event where everyone gathered together and drew the live objects and environment around them so as the learn perspective and object study. Participants: 40

Sketching Workshop: Sketching workshop on Charcoal and graphite painting by V Sairam. Participants: 60

Art Competition: Art competition based on the festival of Christmas.

Participants: 30

Hand Art Competition: An art competition where participants had to draw on their hands with their own imagination and creativity.

Participants: 160



Art Competition: General Art competition based on the theme "Peace and Anti-war in 2022"

Live Sketching Event: An event where everyone gathered together and drew the live objects and environment around them so as the learn perspective and object study. Participants: 40

Art Gallery: An art gallery to showcase the talent and artworks of Kalakriti over the past year.

Abstract Art competition: An art competition where participants had to interpret a given painting and draw their version of it.

Participants: 80

Junk Art Competition: An art competition where people had to make artwork using the junk found around us. Participants: 130



### **CLIX- THE PHOTOGRAPHY SOCIETY**

Collection of the works of the Clix freshers done so far since their inductions. Here are some good photographs from them. It is a task given to Clix 2020 members to take some good Portrait photographs.



**World Photography Day:** A social media post to celebrate world photography day.



**Landscape Photography:** It is a task given to Clix 2020 members to take some good Landscape photographs.

**CLIXAGES:** The first edition of the photography magazine of Clix released.

**WORKSHOPS:** We have conducted many photography workshops and editing workshops

On 14/06/2021 a workshop has been conducted by our Exsecretary Nikhil Nooguri for 2020 inductees of clix.

- » And On 26/09/2021 a workshop has been conducted which is open for all, more than 40 members participated in it and it is an inter institute photography workshop in collaboration with NIT Rourkela and ITER Bhubaneswar.
- » On 14/12/2021 a workshop on basics of photography and tips and tricks of photography had been conducted as a part of Winter Fiesta '21, for which more than 70 students attended.

Apart from these workshops we have participated in competitions like an online photography competition hosted by the photography club of CEG, Anna University, and also in a photography competition conducted by Photography Club of IIT (ISM) Dhanbad.





### **AAROH- MUSIC SOCIETY**

**Competitions:** Crescendo musicana, a music competition was held on 19/06/2021, The GC Music competition was conducted online on 11/03/2022 "Know the artists"

The society continued posting on social media which basically kept the people informed on many famous and new bands and solo artists originating from both across the world and India. This type of posts got people to know various types of artists who many people don't know about.

#### **Productions:**

- » Dusshera productions were held on 15/10/21
- » Diwali productions were held on 15/11/2021

Winter fiesta productions were performed on 30/12/2021
 Holi productions were held on 19/03/2022



### **Quiz Society**

A number of online quizzes were conducted through our Instagram Handle.

#### Offline events conducted by the Quiz Society

- » The first offline quiz of 2021 was the IPL quiz, conducted on 12<sup>th</sup> October for those students present on campus.
- » General quiz was conducted on 17<sup>th</sup> December, also as part of winter fiesta.
- » On 14<sup>th</sup> December, a MELA quiz (consisting of questions from Music, Entertainment, Arts and Literature) was conducted as a part of Winter fiesta.
- » On 22<sup>nd</sup> December, an India quiz was conducted under the banner of winter fiesta.

### **Science and Technology Council**

#### NAKSHATRA – The Astronomy Society AstroChamp

On International Astronomy Day (15<sup>th</sup> May 2021), Nakshatra commenced AstroChamp for the first time. It is the annual Astro meet organized by Nakshatra starting from year 2021-2022, consisting of events ranging from fascinating guest talks and webinars to engaging competitions.

#### Competitions with collaborations (From 21st May – 6th June)

Astrophotography (Clix), English Essay Writing (Panacea), Hindi Essay Writing (Abhivyakti), AstroQuiz (Quiz Club), Coding Competition (Neuromancers), Painting Competition

#### **Guest Talks and Webinars**

#### Black Holes (On 21st May)

Prof. Manojendu Choudhury was invited for a Guest Talk on 'Black Holes'.

#### Observational Astronomy (On 28th May)

Mr. Tejas Shah was invited for a Guest Talk on 'Observational Astronomy and Cosmic Mythologies'.

#### Introduction to Rockets (On 30th May)

Mr. Divyanshu Poddar was invited for a Webinar on 'Introduction to Rockets'.

#### Workshop

#### Machine Learning Workshop

A workshop in collaboration with Techvanto Academy about Machine learning and its applications was conducted.



#### **Telescope Handling Session**

A demonstration session on how to assemble the telescopes and use them was conducted among the society members followed by a presentation on Night Sky Observation. And the session was ended by a simple quiz among the members on Kahoot.

#### Stargazing

#### Society Members (On 13th Dec)

A Star-Gazing Session was held in the evening for the society members. They got a chance to manage the telescopes and binocular and point to different objects in the night sky. The session was very interactive.

#### 2<sup>nd</sup> Years (On 23<sup>rd</sup> Dec)

A Star-Gazing Session for the second-year students was held. More than ninety students from second year showed up to take a look at Jupiter and its four moons and Saturn and its rings through the telescopes.

#### Masters and PhD (On 24th Dec)

A Star-Gazing Session for the Masters & PhD students was held. More than two hundred students showed up to take a look at Jupiter and its four moons and Saturn and its rings through the telescopes.



#### Galactic Café

Nakshatra released its editions of the magazine, Galactic Café, for May 2021, July 2021, September 2021, January 2022 filled with informative articles, up-to-date news, interesting guizzes and crosswords etc.





### WEBND - WEB and Design Society

#### Workshops and Competitions

#### Skyrocket your Canvas on 31st May 2021

The society had organised a graphic design competition in collaboration with Nakshatra as a part of Astro champ.

#### Webathon from 9<sup>th</sup> June 2021 to 19<sup>th</sup> June 2021

The society had organized a webathon in which the participants were given the problem statement to design a personal portfolio website.

#### Mould AI collaboration on 4th October 2021

Mould Al in collaboration with our society conducted a seminar on their courses which were being put up at a discount of over 60% for our college students.

### Creatiwfacts 2 from 25<sup>th</sup> December 2022 to 30<sup>th</sup> December 2022

The Society released five posters along with five videos on Instagram to explain and highlight five most used tools in adobe XD.

#### Webathon (GC)

Competition was conducted as a part of GC in which three problem statements were given and the teams had to select one problem and provide the required solution.

#### Alternate Movie Poster Design (GC)

Alternate Movie Poster Design Competition was conducted as a part of GC where contestants had to design an alternate poster for an already released movie.

#### Web work

- » Designed and developed the website for 'Astro champ', Nakshatra's event.
- » Designed and developed the website for "Mindball", a prediction league game for Eurocup and Copa America, in collaboration with the sports council.
- » Designed and Developed the Academic council website which keeps a record of academic resources in google drive, and works as a compiled medium to get to the required resource effectively.
- » Designed and developed a website to ease the system of gate pass issuing for students.
- » Developed and maintained website made for General Championship 2022.

#### **Design work**

- » Designed and Distributed certificates for gymkhana members of year 2018-2019, 2019-2020, 2020-2021, gymkhana executive council members of year 2019-2020, 2020-2021.
- » Designed a report of ongoing works by the gymkhana updated till 22/10/2022
- » Designed 3 Independence Day posters for the institute, as per requirements made.
- » Designed 3 posters for CST on mental health and 2 posters for the institute on republic day.





### RICS

### **ROBOTICS & INTELLIGENT SOCIETY CLUB**

#### CAD workshop series

CAD Worksop was organized to help the students to start with robot designs. We conducted multiple sessions in this CAD workshop series, in this session we started with basic CAD drawings and extruding objects.



#### **Robonetics workshop**

R.I.S.C in collaboration with Technology conducted a robotics workshop for the students in the month of October to encourage the students in the field of robotics, the platform offered internships as wellmore then 100 students enrolled in the month long workshop series.



#### **CAD** Contest

CAD contest was organized for the students to rank their knowledge among other students in the college, about 45 students participated



# HRUSHIKESH JOSH AYUSH SINGHAL OMKAR SAWANT

### Computer Vision workshop

A computer vision workshop was organized for the students to give their robots the vision to navigate themselves and take it forward to complete automation. We used the OpenCV library on VS code to conduct this workshop.



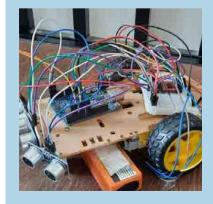
#### Smart car challenge

It was the Robotics competition organized by NXP semiconductors in collaboration with Time of sports(TOS) on the PAN India level, the objective was to make a selfdriving car simulation, where the car can navigate itself on a road, can follow traffic lights, and avoid obstacles in between, taking road, Our team reached grand finals and was in top 10.



#### **R.I.S.C** mini projects

We started mini projects in society to increase the society member's engagement in robotics, we started with 8 different projects and later the projects were floated for all the students in our institute for their contribution



#### Automated warehouse robots

It was the Robotics competition organized by Flipkart GRID, the objective of this robotics competition was to make multiple self-driving robots that can deliver packages in a structured environment using swarm robots. Our team reached the semi-finals and was in the top 15 on the PAN India level where around 600+ teams participated in this event.



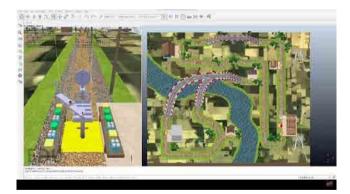
#### Arduino workshop

Arduino workshop was organized for the 1<sup>st</sup> year students to introduce them to the world of robotics. We made the hardware components available to the students so that they can have hands-on experience with robotics stuff, and they performed the tasks along with the workshop.



#### Dairy bike project

It was a robotic competition organised by E-Yantra IIT Bombay in collaboration with MHRD. The objective of this competition was to make a self-balancing bike that can deliver dairy products in rural areas. More than 5 teams participated in this competition, 2 teams from our society ended up in the top 10.



#### Yanthrix

Yanthrix is an event organized by R.I.S.C as a part of Wissenaire (Tech fest of IITBBS). As the competition was held in both online and offline mode for the students inside the campus and for the students from other universities. In the Arduino hackathon the students were given a problem statement and they have to give a robotics solution to the problem using NodeMCU as the base circuit. In RoboCAD the students were given a design problem where they have to give a CAD solution to the given problem.

#### **General Championship**

General Championship organized by student's gymkhana IIT BBs where different branches compete in more than 80+ events. R.I.S.C being a Technical society organized a CAD Contest where the students were given a design problem where they have to give a CAD solution to the given problem. Arduino hackathon where the students were given a problem statement and they have to give a robotics solution to the problem using NodeMCU as the base circuit.

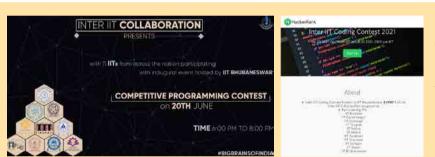


### **NEUROMANCERS- THE PROGRAMMING SOCIETY**

#### Session on competitive Programming

A general session on Competitive Programming exclusively for the fresher's was conducted, and members of the society shared personal experiences on how they excelled in competitive programming, and provided guidance to the freshers on how they could do the same. This was followed by a QnA round in the end, which showed an active and enthusiastic response from the audience.





#### Inter IIT Coding Contest

As part of the inter IIT collaboration programme initiated by IIT Bhubaneswar in 2021, we hosted the first event: an inter IIT Competitive Coding Contest

#### Neuromancers Coding Contest Aug '21

Competitive Coding Contest for all the students of IIT Bhubaneswar which saw enthusiastic participation from fresher's.



#### **Neuromancers 2021 Challenge Series**

A coding Contest was organized specifically for the final year students, to help them prepare for the placement coding rounds. 2 competitions were conducted over a course of 2 weeks, to emulate the Online Tests of popular software companies.



#### Algorithm Horcrux 1.0

A 2-day coding event was organized in collaboration with NIT Rourkela, which saw participation by students from various colleges all over India. A dedicated website was developed for this event. Certificates signed by professors from both universities were given to participants at the conclusion of the event. This event also had sponsors like GeeksforGeeks, Placewit, Glarizon, PrepBytes, etc. and media partners (Rourkela 360) and prizes were given to winners.



#### Neuro 2021 Placement Challenge Series

A series of 3 mock coding tests were organised by Neuromancers for the placement preparation initiative of the science and technology council. The competitions(s) saw participation from many students and up to 50 top participants from ach contest were given the opportunity to appear for a mock placement interview with alumni's who had been placed in top companies.

#### Neuro 2021 Placement Challenge - 1



#### Intro to Open Source

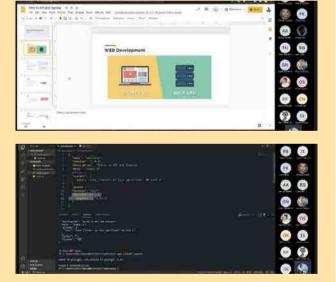
A short informative session was taken up by a few senior members of Neuromancers, to help beginners understand what Open Source Software development is, how to get into it, and explain fundamental Git/GitHub workflows.



### Introduction to building APIs with Express.j

A session on building APIs with NodeJS and Express.js was organized for the sophomore batch of Neuromancers, by the pre-final year members of the society





#### Android Study Jams

A series of sessions taken up by core team members of Google Developer Student Club, IIT Bhubaneswar and Neuromancers were organized as an introduction to Android concepts, for beginners.



#### Winter Coding Bootcamp

This was a month-long programme intended for fresher's, aimed at introducing them to programming and problem-solving. 3 interactive workshop sessions were held, and mentors were assigned to groups of participants to aid them during the learning process. This was followed by an algorithmic problem solving competition to allow the participants to apply what they learnt.



#### **Azure Workshop**

A webinar was conducted to introduce attendees to the concept of cloud computing and its fundamentals, by building a simple chat server in JavaScript and deploying it to the cloud using Microsoft Azure.



#### Software Development Hackathon



Asoftware development hackathon with 3 tracks for teams to choose from was organized as part of the General Championship. Teams had to build a working prototype of a project that solved the problem within 2 days. 3 alumni of IIT Bhubaneswar who had been part of

the Programming Society were invited as judges for this event.

#### **OOP** Design Challenge



followed by a live demo.

P a r t i c i p a n t s needed to provide a low-level object oriented design and implementation for a "Students' Gymkhana Management System", along with an explanation of their solution using class diagrams, its code in any OOP language,

#### Software Internship Guidance Session

An interactive offline seminar was organized by final and prefinal year students of the Programming Society, to provide mentorship and guidance to the sophomore batch for their upcoming internship interviews, and their preparation for the same.









# **SPORTS COUNCIL**

### **OASIS Event**

With continuation of semester through online mode, the deterioration in physical fitness and engagement in sports has been significant. The Sports Council 2021-22 came up with a unique initiative for conducting sports and games events through online mode. The event received a massive response from the student body as more than 400 students took part in OASIS.

Instead of conducting multiple isolated sporting events, the idea was to form 5 teams through an auction, which would later compete in different events. This tournament was named OASIS, Online Autumn Semester Institute Sports tournament. A total of 90 students filled the google form showing their interest in the mega auction.

#### **Final Results**

Rank	Name	Total Points
1	Sai Bhaskar (B.Tech., 3 <sup>rd</sup> year)	54553
2	Amit Kumar Pandit (B.Tech., 2 <sup>nd</sup> year)	54526
3	Kushagra Khare (B.Tech., 2 <sup>nd</sup> year)	49220

#### Fitness Challenges Results

Name	Represented	Total Points (After 11 Challenges)
Sai Bhaskar (B.Tech 3 <sup>rd</sup> year)	Falcon Fangs	35130

Team Results - Team Falcon Fangs Won

#### **Fitness Challenges**

The Fitness Challenges the main part of OASIS were conducted combinedly by Table Tennis and Squash societies in which there were four rounds held with various kinds of challenges of various difficulty such as basic, moderate and advanced. The social media pages were also very active with many posts being uploaded in Instagram. The fitness challenges witnessed cumulative participation of 150+ fitness enthusiasts.

#### **Chess & Rubiks Cube Challenge**

OASIS online chess team battle (13<sup>th</sup>-20<sup>th</sup> August), consisting of two rounds was the intra-college chess tournament conducted by board games club 47 students participated in it. Rubik's Cube Challenge was also conducted in OASIS under the board games club.

### Racket Games tournaments on NATIONAL SPORTS DAY

On August 29<sup>th</sup>, 2021 i.e. on National Sports Day, Badminton and Table Tennis Society conducted a Racket Games Tournament; which was an open tournament for Badminton and Table-Tennis. The tournament lasted till 5<sup>th</sup> of September 2021 and it saw massive participation from the M-Tech, M.Sc, final year Dual Degree students and PhD students. The tournament included:

#### **Badminton**

- » Men Singles: 46 participants (won by Rahul Biswas)
- » Women Singles: 6 participants (won by B. Prema Sai Goud)
- » Men Doubles: 48 participants (won by Rahul Biswas & Tanmay Burman)
- » Women Doubles: 6 participants (won by Srusti Priyadarshini & Goushya Begam)
- » Mixed Doubles: 24 participants (won by Lalit Mohan & Manaswini Ghosh)

#### **Table Tennis**

- » Men Singles: 22 participants (won by Tushar Srivastava and runner up Ritam Chakraborty)
- » Women Singles: 4 participants (won by Srusti Priyadarshini and runner up Hridaya Jyoti Biswal)
- » Men Doubles: 16 participants (won by Ritam Chakraborty and Rakesh Nandan; runners up Tushar Srivatava and P.V. Pavan Kumar)

The tournament was a massive success and enabled us to discover players from the PG course with great potential.

#### **PAN IIT Cyclothon**

The Pan IIT Cycling event was a weeklong event conducted by IIT Madras. It was an inter IIT cycling event conducted from January 3<sup>rd</sup>, 2022 to January 9<sup>th</sup>, 2022. In the Main Event, cyclists from different IITs battled on four verticals, namely, Total Distance, Average Speed, and Elevation Gain & Overalls for the Pan IIT Championship & for Individual Championships. IIT Bhubaneswar stood 5<sup>th</sup> in overall standings.

#### Winter Fiesta, 2021

Winter Fiesta was the first major event conducted after the pandemic. During December 2021, since we were facing the threat of COVID 19 students had to stay back in the institute. There arose a need for enough recreational activities for the students in college and Winter Fiesta was proposed to provide the same with high intensity. The tournament was open for all so that we could search for new talent since sports activities had come to halt for around 2 year.

Cricket-In winter fiesta, an open tennis ball cricket tournament was organized. The tournament was a huge success with as many as 28 teams, with each team having a strength of 11-15 members, registered for it.

#### Football

As part of Winter Fiesta, a football tournament was organized consisting of 8 teams in two pools. This also created an opportunity for the seniors players of IIT Bhubaneswar football team to interact with juniors who are diligent to the sport. A team of sophomores of the college coordinated the Winter fiesta Football tournament. Event was lively throughout the whole winter vacation. This proved to be a stepping stone for many players to be a part of the football team of IIT Bhubaneswar. Team "Mohun Bagan FC" emerged as winners of the Winter Fiesta Football Tournament.





#### Volleyball

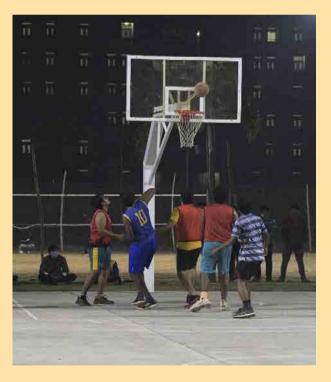
Participation was open for all. Everyone got a chance to participate and make their own teams and play. There were a total 18 teams in volleyball in the tournament and nearly 150 participants. The event lasted for nearly 2 weeks and successfully ended on a good note.





### **Basketball**





This was the first time the  $2^{nd}$  yr. students got to play against senior Inter IIT players and got to learn a lot from them. Hence, the main intention for this tournament was to find talented students in the field of basketball from  $2^{nd}$  year. Basketball competition had a total of 9 teams thereby having more than 135 participants. The tournament commenced on 8 Dec 2021 and the final was conducted on 15<sup>th</sup> Dec 2021.

#### **Badminton**

The event consisted of Men Singles and Women Singles. The event saw a staggering participation of 198 students which included 166 boys and 32 girls. The Individual categories were won by Subham Badpanda followed by Vijay Vishwakarma and Supritha followed by S. Dishana respectively. The event was fueled by a new and young team of sophomores who matured throughout the winter fiesta and experienced their first tournament at IIT.



### **Table Tennis**

Under the Winter Fiesta, the open table tennis tournament was conducted where the matches were held in knockouts and prizes were handed over to the winners in the Winter Fiesta closing ceremony. The Inaugural Match for TT was played by Prof P.V. Satyam (Dean, Student Affairs) and Dr. Anoop Thomas. We witnessed a huge participation with around 120 boys and 16 girls competing in knockout singles with the winners being as follows in their respective category, The Individual categories were won by G. Ruthvik followed by Pranav Baradkar and Srusti Priyadarshini followed by Hrishita V Hiremath.





#### Throw ball

The Throw ball competition was co-conducted by the Lawn Tennis Society and the Basketball Society which saw a huge participation of over 180 participants.

#### Chess

Winter Fiesta Chess Tournament was the offline tournament conducted in rapid format where the best minds of the college came to test their skills. Intra college Carrom tournament was also conducted in Winter Fiesta.

### **Inter Year Tournaments by Sports Council**

#### Cricket

Inter year is one of the most competitive tournaments in our college. After many ups and downs due to Covid upsurge inside the campus, the inter year cricket tournament finally started on 22<sup>nd</sup> Jan, 2022. The tournament was completely dominated by BTech 4<sup>th</sup> year team, who eventually went onto win their maiden inter year title. The faculty team were not able to participate this time but are getting ready for their next intra institute tournament.

Winner: B.Tech. 4th year

#### Runner Up: Ph. D.





Glimpses of Inter year cricket

#### **Football**

Inter year 2021-22 football tournament was conducted in the first two weeks of February 2022. This was the first time 11 a side football matches have happened in our college since 2019. Highly talented teams were made from each year and divided into 2 pools. Matches were conducted during morning slots. Particularly the final match between 3<sup>rd</sup> Years and Masters proved to





be thrillful. The Masters team was the winners of the Inter Year Football Tournament.

Inter year football tournament helped us to find talented players in our college and encouraged them to try and compete for a spot in the football team of IIT Bhubaneswar.

Winner: Masters Runner Up: 3<sup>rd</sup> Years

#### Volleyball

The Inter-Year was an intensely fought tournament and was the first opportunity for first-year students to show off their volleyball skills. The tournament was for both boys and girls and there were a total 8 teams. Two pools each having 4 teams were there.

#### Boys

Winner: PHD+ M2 Runner Up: 5<sup>th</sup> Years + MSC 2<sup>nd</sup> Year

#### Girls

Winner: 3<sup>rd</sup> Years Runner Up: 2<sup>nd</sup> Years



#### **Basketball**

This tournament was open to both boys and girls in various years of BTech and dual degrees. The tournament was conducted from 2<sup>nd</sup> February, 2022 to 7<sup>th</sup> February, 2022. The Inter-Year 2021-2022 basketball tournament, which was conducted within pandemic norms, drew a large crowd, with the main focus being on the final.

Boys Winner: 4<sup>th</sup> Years Runner Up: 2<sup>nd</sup> Years



### **General Championship 2022**

#### **Boys Cricket Tournament**

The general championship in 2022 was the most anticipated tournament of the year. The much awaited and highly emotional GC cricket tournament commenced on 12<sup>th</sup> March, 2022.The final this time was special as it was the first time that the winner had to be concluded after a super over. It was nerve wracking for players and audience alike.

Breaking the notion of BTech teams being more stronger, MTech team won their maiden GC title defeating Civil team in a thrilling super over by 4 runs.

Winners: M.Tech Runners: Civil Engineering Third place: CSE





#### **Boys Football Tournament**

The General Championship was the most lively event during the academic year at IIT Bhubaneswar. This time, each branch among 8, competed very hard to reach the top of the points table. The GC Football Tournament was 11 a side tournament. GC was very successfully conducted and Electrical branch were the winners of the event.

Winner: Electrical Engineering | Runner Up: MSc. | 2<sup>nd</sup> Runner up: CSE





#### **Girls Football Tournament**

This was a revolutionary event in this year's General Championship. Girls of IIT Bhubaneswar were given the chance to show that they can play football equally well and they proved it. This was a 5 a side tournament.

Winner: Civil Engineering | Runner Up: MSc. | 2<sup>nd</sup> Runner up: Mechanical Engineering



#### **Boys Volleyball Tournament**

The tournament began on, with eight teams competing for 1 trophy. The crowd support for their branch was superb. Managing such a big crowd was a difficult task but finally with everyone's help we successfully conducted GC with a good note.

Winner: PHD Runner Up: Civil

2<sup>nd</sup> Runner up: ECE + Meta





#### **Girls Volleyball Tournament**

The general championship 2022 girls ran parallel to boys GC and encountered a huge support from their respective branch supporters.

Same format as boys was followed for girls.

Winner: Mechanical Runner Up: ECE + Meta 2<sup>nd</sup> Runner up: CSE



#### **Boys Basketball Tournament**

The tournament began on 14<sup>th</sup> March, 2022, with eight teams competing for a spot in the semi-finals. Both boys and girls competed in this tournament. This tournament drew the largest crowd, and the atmosphere on the court was intensely competitive.

The results for the tournament were:

Winner: ECE+Meta | Runner Up: CSE | 2<sup>nd</sup> Runner up: Mechanical



#### **Girls Basketball Tournament**

The tournament in its entirety was a spectacle to watch, with teams playing extraordinarily and a large audience witnessing spectacular matches.

The results for the tournament were:

Winner: Mechanical

Runner Up: Electrical

2<sup>nd</sup> Runner up: CSE







#### **Badminton**

We went with the team format, where two teams clash against each other in best of five matches (each match consisted of 21 points for best of 3 sets): Men Singles 1<sup>st</sup>, Women Singles, Men Doubles, Mixed Doubles and Men Singles 2<sup>nd</sup>. In the same order. Each team comprised minimum 5 to maximum 7 players (1-2 girls, 3-5 boys). The tournament concluded on 25<sup>th</sup> March 2022, with the following standings:

Winner: EC + Meta Runner Up: Electrical 2<sup>nd</sup> Runner up: PhD





#### **Table Tennis**

We went with the team format, where two teams clash against each other in best of five matches (each match comprised of 11 points for best of 3 sets in pool while 5 sets in semis and finals):

- » Men Singles 1st
- » Men Doubles
- » Women Singles
- » Mixed Doubles
- » Men Singles 2<sup>nd</sup>



### Gym and Weightlifting

In the General Championship, 2022, there were 6 events in the Gym and Weightlifting. The events consisted of open fitness challenges which included plank, pushups, squats and pullups challenges for both men and women. The closed events consisted of bench-press and deadlift for men.

All the events together had a participation of more than 140 participants. The participants were exposed to various fitness activities. The events attracted all the fitness enthusiasts from our institute. The environment of the events was highly competitive. The events were successfully conducted during the whole month and ended with a good note.

### THROWBALL

#### **Boys Throw ball Tournament**

The Throw ball Tournament of the General Championship 2022 was conducted by Volleyball Society. The respective branches began preparing for their matches well in advance of the tournament and were looking forward to the competition.

Winner: ECE + Meta Runner-Up: Electrical 3<sup>rd</sup> Place: CSE Each team comprised minimum 5 to maximum 7 players (2-3 girls, 3-4 boys). The GC Table Tennis tournament was conducted by current Table Tennis Secretary Rhea Singh. The tournament concluded on 23<sup>rd</sup> March 2022, with the following standings:

Winner: Civil

Runner Up: Electrical

2<sup>nd</sup> Runner up: PhD



#### **Girls Throw ball Tournament**

The General Championship 2022 girls ran parallel to boys GC and encountered a huge support from their respective branch supporters.

Winner: Electrical

Runner-Up: CSE

3rd Place: ECE + Meta

### **ATHLETICS**

Total number of Events conducted: 25 events Total number of participants in athletics GC: 539 athletes

### **Track Events**

The first time in the history of IITBBS we conducted sprint events. Our society worked hard in guidance of Pegu sir and we were successful in making a 200 m track on MHR ground where we conducted all sprint events. We started GC with exciting events like 100m, 200m, and 400m sprint heats and also conducted 4\*100 m boy's relay race, 4\*100m girl's relay race and 4\*100 m mixed relay race. All events were for both boys and girls. All events were very friendly and with the spirit of healthy competition. The number of participants in sprint events was 240 athletes out of which 120 were girls and 120 boys, which is an amazing figure.

### **Field Events**

Jump and throw events were going in parallel to sprint events. We conducted long jump, standing jump, and triple jump in Jump events and Discuss Throw, javelin throw, and shot put throw in throw events. We made all the tracks for long jump, triple jump, shot put, discus throw and javelin throw under the guidance of Mr. Biswajit Pegu Sir. We got a total participation of 192 participants from all branches and 96 were girls and 96 were boys.

### **Cross Campus Events**

We started cross campus events with the Boys duathlon race, in this race Individuals have to complete a distance of approx. 8km by running and cycling. The race started from SAC and ended at SAC by covering residential areas and then till SMS and from SMS back to SAC. In this race 3 athletes were allowed from each branch to take part. This was a very competitive and energetic race.

After this we conducted a girls Marathon race which was about 3.5 km from SAC to SMS. This was an open event in which there was no restriction on participation. In this race about 23 girls participated and water, glucose and ORS were arranged in between the route at the checkpoint.

Then the largest cross campus event, Duathlon mixed relay race was conducted. This was an 8km long relay type race. This was a team event. 3 teams from one branch were allowed and each team was composed of two boys and two girls. In this race girls have to do cycling and boys have to run. The last event was the Boys marathon which was an open event.

### **Tug of War**

In the General Championship, the squash secretary was given the responsibility of conducting the Tug of War. The event was conducted for both boys and girls in knockout formats, there were a total of 16 matches of both boys and girls.

#### **Boys Results**

Winner: Electrical Engineering Runner Up: Civil Engineering 2<sup>nd</sup> Runner Up: Mechanical Engineering

#### **Girls Results**

Winner: Computer Science Engineering Runner Up: Electrical Engineering 2<sup>nd</sup> Runner Up: M. Tech.

### Kho-Kho

As part of GC, a Kho Kho tournament was conducted which saw extremely hard fought matches throughout the competition. Also, this was the first time Kho-Kho sport was professionally played at our institute. The pitch was measured and marked in MHR ground and kho-kho poles were installed. All matches of kho-kho witnessed a large number of spectators. The GC Kho-Kho Tournament was a 12 a side tournament (standard kho-kho format was followed) for both boys and girls. There was a great tussle for points in all the matches.

#### **Boys Result**

Winner: M.Sc. Runner Up: M.Tech. 2<sup>nd</sup> Runner Up: Civil Engineering

#### Girls Result

Winner: EC + Meta Runner Up: M.Sc. 2<sup>nd</sup> Runner Up: Civil Engineering



# Other Events Conducted by Sports Council

### **Mindball Prediction League**

Firstly during 11<sup>th</sup> June 2021 to 13<sup>th</sup> June 2022, when the UEFA EURO CUP and COPA AMERICA Tournament was happening, with the help from Web&D society of IIT Bhubaneswar, Football society released a website for the prediction of the match results in the mentioned tournaments. This received encouraging response from students of IIT Bhubaneswar. This was also an Inter branch Event where players from each branch wanted to win points for their respective branches.

Individual Winner:	Pramit Sarkar (Alumnus)
Individual Runner Up:	Aqib Qadir (CE)
Individual 2 <sup>nd</sup> Runner Up:	Adithya Binoy (ME)
Branch Winner :	Mechanical Engineering
Branch Runner up :	Electrical Engineering
Branch 2 <sup>nd</sup> Runner up :	Civil Engineering



#### Sophomore Inter-department Volleyball Tournament

This tournament was conducted when the second years first came to campus after the pandemic was stabilized. This was the first time when second year students got to showcase their talent. The main motive of this tournament was to find talented students in volleyball from 2<sup>nd</sup> year. Total of 6 teams participated in this event. The format of the tournament was round robin. Electrical branch was the winner of the tournament, winning all the matches. Team ECE stood at second place.

#### **Chess Workshop**

Grandmaster Chess Workshop titled "Inside the Mind of a Grand-master" for students of IIT Bhubaneswar by Raja Rithvik R, former world youth chess champion and one of the youngest grandmasters of India, who has won laurels for the country in several international tournaments.

#### **Designing logo for Football Society**

With the help of an alumnus Mr. Aman Kumar and 2<sup>nd</sup> year student Mr. Nikhil Jobbi, Football Society designed a logo for IITBBS FC.



### Participation in Inter College Matches and Tournaments

#### Football

IIT Bhubaneswar football team has participated in an inter college tournament organized by Centurion University on 8<sup>th</sup> March 2022. We played 2 teams in the tournament. One of our teams reached the guarter finals. Results are as follows:

Match Played Against	Result - W/L/D	Score
BGU	L	O - 1
SSC	W	4 - 0
NISER	L	1-2

### Chess

Teams from IIT BBS participated in inter college tournaments hosted by IIT Bombay which include AICL, Chess 960 Fiesta, Aavahan.

Quarantine Chess tour (13<sup>th</sup> June-1<sup>st</sup> August) was an inter college chess tournament conducted mainly by IIT Bombay in which all the elite engineering colleges including IITs, NITs, BITS, VITs participated. In this online tournament consisting of 6 qualifiers and one final round (spanning over one and a half month), we participated and secured good positions in some of the qualifiers. We secured the 11<sup>th</sup> place, being 1 point behind IIT Kharagpur and performed better than some senior IITs like IIT Delhi in one of the qualifiers, ranking above IIT Guwahati, IIT Hyderabad and other second and third generation IITs in overall rankings.

### **Table Tennis**

Our IIT Bhubaneswar's table tennis team had played the inter-college matches with NISER conducted by them in their premises. The game format consisted of five matches and was all singles for boys while for girls there were singles along with a doubles match. Both the boys and girls team participated well and won the game by the set score of 3-2 for boys and 3-0 for girls.

### **Badminton**

IIT BBS team from the month of April 2022, has been playing friendly badminton matches and tournaments with NISER on every weekend for nurturing youngsters with the taste of tournament experience and healthy competition from their start and also preparing and training the experienced players for the upcoming Inter IIT tournament in December. We also made a tradition to rotate our squad every weekend so as everyone could get a proper and equal chance to play and develop.



νż	RECEIPTS	CURRENT YEAR 2021-22	PREVIOUS YEAR S. 2020-21 N.	PAYMENTS	CURRENT YEAR 2021-22	PREVIOUS YEAR 2020-21
	<b>Opening Balance</b>		<u> </u>	EXPENSES		
	a) Cash in Hand	I	I	a) Establishment Expenses	384,759,072.00	355,264,376.82
	b) Bank Balances			b) Academic Expenses	130,954,680.65	134,074,215.55
	i) In Current accounts			c) Administrative Expenses	36,658,625.00	46,981,766.00
	ii) In deposit accounts			d) Transportation Expenses	48,602.00	62,219.00
	iii) In Savings accounts	153,864,635.18	125,609,487.73	e) Repairs & Maintenance	147,775.00	128,165.00
				f) Prior Period Expenses	1,510,469.51	358,268.00
				g) Finance Cost	75,995.25	112,311.68
<b>=</b>	Grants Received		=	Payment against Earmarked/ Endowment Funds	5,249,344.00	3,705,719.00
	a) From Govt. of India	1,185,079,822.00	877,139,119.00			
	b) From State Government					
	c) From Other Sources(Details)					
	(Grants from Capital and					
	Revenue expenses to be					
	Shown Separately)					
≓	Academic Receipts	323,719,159.10	297,579,626.00 III.	Payment against Sponsored Projects/ Schemes	351,927,937.33	277,373,961.39
≥	Receipts against Earmarked/ Endowment Funds :		ž	Payment against Sponsored Fellowships/ Scholarships		
	a) Earmarked/Endowment Fund					
	<ul> <li>Cown Funds (other Investment)</li> </ul>					
≻	Receipts against Sponsored Proiects/ Schemes	327,991,913.25	306,002,487.33 <b>V</b> .	Investments and Deposits made		
				a) Out of Earmarked/ Endowment funds		
				<ul><li>b) Out of Own funds (Investments - other)</li></ul>		
ż	Receipts against Sponsored Fellowships and Scholarships		.IN	Term Deposits with Scheduled Banks	1,902,447,592.28	1,171,869,503.12
Ĭ	Income/ receipt on Investment		AI.	Expenditure on Fixed Assets and Capital Wrok-in-Progress		
	a) Earmarked/ Endowment funds	33,405.00	1,436,381.39	a) Fixed Assets	4,630,527.38	228,245.53
	b) other Investments			b) Capital Works-in-Progress	10,000,000.00	

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ν̈́ż	RECEIPTS	CURRENT YEAR 2021-22	PREVIOUS YEAR S. 2020-21 N.	PAYMENTS	CURRENT YEAR 2021-22	PREVIOUS YEAR 2020-21
.≡ I	Intrest received on		VIII.	. Other Payments including statutory payments	739,822,607.42	493,488,227.54
	a) Bank deposits	19,205,855.55	17,751,699.85	Capital fund		
	b) Loans and Advances			HEFA Loan	326,629,822.00	275,000,000.00
	c) Savings Bank Accounts	1,294,884.00	1,282,059.54			
×	Investments encashed	1	- IX.	Refunds of Grants	2,857.00	I
×	Term Deposits wih Scheduled Banks encashed	1,871,274,190.03	1,155,434,061.91 <b>X</b> .	Deposits and Advances	7,471,847.00	77,143,197.46
ΪX	Other Income (including Prior Period Income)		Х	Other Payments		
	Institute	4,096,300.34	2,733,874.90			
	Hostel Receipt	65,851,343.50	24,514,993.56	Hostel	3,874,809.76	881,100.25
	Receipt against Hostel Current Assets	I	26,359,581.00	Hostel Payment against Fixed Assets	884,754.00	98,370.00
	Gymkhana Receipt	3,146,335.00	958,722.38	Hostel Payment against Current Liabilities	70,664,173.00	37,886,040.00
	CEP Receipt	45,241,210.51	5,553,857.96	CEP Payment	45178505.78	13,113,097.44
	Guest House Receipt	851,680.00	2,024,647.62	Gymkhana payment	1,157,187.00	1,010,174.00
	S K Bet Receipt	6,052,304.00	6,218,362.00	Guest House Payment	835,154.42	2,096,212.59
				S K Bet Payment	6,052,251.00	6,226,702.00
.ĭ	<b>Deposits and Advances</b>	49,359,162.25	14,914,933.00 IX	Closing Balances		
				a) Cash in Hand		
XIII.	Miscellaneous Receipts including Statutory Receipts	190,179,905.48	185,452,612.38	b) Bank Balances		
				i) In Current accounts		
≥X	Any Other Receipts			ii In deposit accounts		
				iii) In Savings accounts	216,257,516.41	153,864,635.18
	TOTAL	4,247,242,105.19	3,050,966,507.55	TOTAL	4,247,242,105.19	3,050,966,507.55

**Registrar** IIT Bhubaneswar

**Director** IIT Bhubaneswar

### **RESEARCH & DEVELOPMENT**

### Receipts and Payments Account for the Year 2021-22

RECEIPT		Amount
Opening Balance		769,997,922.58
Add: Receipt during the year		
Consultancy Project		32,321,580.48
Sponsored Research Project	144,557,263.47	
Less : Refunded	4,547,332.00	140,009,931.47
Sponsored Fellowship		3,313,367.00
Institute Overheads		18,600,664.74
Tax Deducted at Source (TDS)		9,454,257.00
Goods & Service Tax (GST)		8,824,430.73
GST TDS		684,772.00
Professional Tax		30,250.00
Earnest Money Deposit (EMD)		3,286.18
Performance Bank Gurantee (PBG)		550,677.00
Other Current Liability		1.00
Sundry Creditors		92,469,074.76
Liquidated Damages		361,202.00
Bank Interest		1,341,322.00
Interest on TDR		19,268,949.89
CEP Receipt		513,600.00
Stale Cheque		244,547.00
Total		1,097,989,835.83

### **RESEARCH & DEVELOPMENT**

### Receipts and Payments Account for the Year 2021-22

Payments	Amount
FOR REVENUE EXPENSES	
Salary to JRF/SRF and project Assistant	35,590,401.00
Consumables	13,280,427.00
Contingencies	4,088,936.74
Recurring Expenses	1,558,582.00
Travel Expenses	1,057,906.00
Consultancy Fees & Honorarium	31,162,985.50
Neeting & Workshop Expenses	24,780.00
nstitute Corpus Fund	11,895,942.00
Fellowship	6,194,224.00
Dverhead refund	363,376.00
Sample Preparation & Testing	99,910.00
Dutsourcing Facility	88,192.00
&D Recurring Expenses	1,998,141.27
ee for Intelectual Assets	300,000.00
abrication & Other Cost	767,683.00
Startup & IPR Expenses	427,410.00
Duty & Taxes	25,135,875.76
itale Cheque	119,835.00
Sundry Creditors	88,179,052.00
Dther Current Liability	300,000.00
aculty Development Fund	750,671.00
School Development Fund	80,580.00
Bank Interest	1,561,206.00
cientific & Social Responsibility	90,000.00
ransfer to Colaberative Institute	5,168,444.00
lesearch Grant	496,793.00
arnest Money Deposit (EMD)	305,000.00
CEP Payment	513,600.00
Performance Bank Gurantee (PBG)	393,343.00
iquidated Damages	33,340.00
CLOSING BALANCE	865,963,199.56
IOTAL PAYMENT	1,097,989,835.83

### **Representation of Scheduled Castes (SC), Scheduled Tribes (ST), Other Backward Classes (OBC), PwD and Minorities**

Indian Institute of Technology of Bhubaneswar has recruited different reserved categories of positions of Faculty and Non-Teaching staff as per Govt. of India rules. The Institute also provides benefits to the above categories as per the provisions of the Govt. of India guidelines issued from time to time. The Institute administers and supervises various activities of SC/ST/OBC/PwD and Minorities under the establishment section. The institute also appointed one Liaison officer who is a single point of contact for all matters related to a reservation in appointments and admissions, redressal of Grievances, harassment, discrimination etc., of SC/ST/OBC/PwD and Minorities.

The details of representation for the above categories are as follows:

SI. No	Position	Category	Nos.
1	Faculty	Scheduled Castes	05
		Scheduled Tribes	01
		Other Backward Classes	16
		PwD	01
		Minorities	03
2	Non-Teaching	Scheduled Castes	08
		Scheduled Tribes	04
		Other Backward Classes	15
		PwD	Nil
		Minorities	02

## Status of filling up of backlog vacancies in the year 2021-22

SI. No	Information Sought	Reply
i.	The details of backlog vacancies of SCs and	Faculty: Assistant Professor
	STs in all existing faculty and non-faculty in	SC- 10, ST- 5
	IITs and since when these backlog exits.	Non-Teaching:
		SC- 2, ST- 8
ii.	The reason for backlog of vacancies reserved for SCs and STs?	<b>Faculty:</b> The Institute is following flexible cadre structure for appointment of faculty members.
		Non-teaching: Non-availability of suitable candidate.
iii.	The time frame under which the backlog vacancies will be filed up?	Institute recruits through the year via Rolling Advt.for Faculty members and also in the process of advertising the backlog vacancies in a special Drive Mode. For non0-teaching positions, a regular advt.is under process.
iv.	The details of relaxation being provided to SC/ST to fill the said backlog vacancies.	As per Gol norms.

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