

वार्षिक प्रतिवेदन

# Annual Report

2020-21



भारतीय अभियांत्रिकी विज्ञान और प्रौद्योगिकी संस्थान,  
शिबपुर

Indian Institute of Engineering Science and  
Technology, Shibpur





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# Annual Report

2020 – 21

(April 01, 2020 – March 31, 2021)

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**Indian Institute of Engineering Science and  
Technology, Shibpur**





## From the Desk of the Chairperson, Board of Governors

In my ongoing association with IEST Shibpur, I have witnessed its steady progress, firmly secured even amidst the devastating impact of the Covid-19 pandemic since the last year. IEST has not only managed to uphold its academic performances but has achieved significant growth in research and consultancy, clearly evident in the rankings it has achieved: 314<sup>th</sup> in Asia category by the QS World University Rankings 2021 and 43<sup>rd</sup> overall, 21st among engineering institutes, and 6th in Architecture by the NIRF rankings in 2020.

Since the onset of the Covid-19 pandemic, the Institute has established the best possible alternative to face-to-face communication by regularly conducting real-time online classes through the Google workspace and holding online exams efficiently for the undergraduate, postgraduate, and PhD courses. Further, to bridge the digital divide of our society, IEST has provided android tablets and recharged data packs of the students with weaker financial conditions to help them seamlessly participate in the virtual education process. The Institute has recently successfully organized its 7th Annual Convocation in the online mode, where 940 students have received their hard-earned degrees virtually. All these innovative measures have been made possible by the Digital Education Hub, which now acts as a facilitator and repository of the online education system of the Institute. It was established with the generous aid of Rs 1 crore provided by an alumnus and inaugurated on Independence Day 2020.

It is a pleasure to note that the Government of India has acknowledged the Institute's research activities, apparent from the (virtual) inauguration of the DST-IEST solar PV hub at IEST by the former Hon'ble Union Education Minister, Shri Ramesh Pokhriyal' Nishank' in October 2020. The faculty members have received international acclaim as seven of the Institute's present and former faculty members have been placed as the global top 2% of scientists in the subject-wise ranking created by the experts of Stanford University in 2020. An MoU has been signed between IEST and IBM in the online mode; and this much-needed industry collaboration is expected to create multiple opportunities for cutting-edge knowledge transfer, research and development. Institute Innovation Council (IIC 3.0) has also been active in organizing several informative webinars to stimulate the culture of innovation and entrepreneurship among the faculty members and the students.

The students must be heartily congratulated for staying motivated and focused despite the several challenges posed by the Pandemic. From the undergraduates to the Ph.D. scholars, the students of this Institute have produced stellar performances in academics and several competitions, events,

and conferences. The placement scenario has also been fairly satisfactory; additionally, a sizeable section of the students has opted for higher studies in reputed institutions in India and abroad. However, our students are not only academically talented but also socially aware and responsible citizens of our nation. ICCHE, a students' society, has been appreciated by the former Hon'ble Union Minister of Education, Shri Ramesh Pokhriyal' Nishank', in one of his tweets for providing humanitarian aid during the COVID-19 pandemic and the Amphan super cyclone. To keep up the morale of the students in these exceptional times, the Institute is regularly offering the online service of a psychiatric counselor. IEST has also continued to keep its cultural front active by virtually celebrating various occasions and artistic and awareness raising activities that have kept the human spirit alive in times of crisis.

IEST has taken notable measures to combat the Covid-19 pandemic, including a timely arrangement (with CMOH, Howrah) to vaccinate all the stakeholders of the Institute and setting up a well-equipped Covid-Care facility on the campus to cater to the emergency medical needs of the employees and their families. The alumni have donated two oxygen concentrators and a Sycuan device to the Covid-Care facility of the Institute to assist in its smooth functioning. The Institute is indeed grateful to the alumni for its timely and thoughtful contribution on several occasions, such as donating a very generous amount to the bank accounts of the 9 students who needed urgent financial help to continue their studies. GAABESU has come forward to virtually organize its Flagship Awards and Scholarship Programme to encourage our young students to achieve excellence in their careers. A well-wisher of the Institute has also donated a sum of Rs 50 lakhs to create an endowment fund for the deserving students.

Despite the Pandemic, IEST has made progress with the Rs 129 crore project, funded by the Union Education Ministry, to build a 10storey boys' hostel on campus. The Institute has also pledged to protect the environment on its campus and has undertaken massive reinstalling of the age-old trees affected by the super cyclonic storm 'Amphan' along with the Horticulture Department of CPWD Kolkata.

Thus, I can proudly state that the IEST community has shown remarkable collective resilience to a global challenge posed by the Covid-19 pandemic. I am sure we proceed only forward from this turn to expeditiously achieve our mission of establishing IEST, Shibpur as a world-class institution of higher education.



**Vasudev K. Aatre**

Chairperson, BOG  
IEST, Shibpur



## From the Desk of the Director

It is heartening to see that even in the face of the pandemic, the IEST fraternity has put up a brave front in serving the student community undeterred. This has become possible because of the dynamic guidance of Dr. Vasudev K. Aatre, the Hon'ble Chairperson of the Board of Governors of the Institute.

I congratulate the Annual Report preparation team of the Institute for completing the compilation of the report for 2020-21 within the stipulated time frame.

Despite many challenges posed by the ongoing pandemic, the faculty members contributed research articles in high-impact journals, received funding for research projects from prestigious funding agencies, and completed several consultancy works. The DST-IEST Solar PV Hub virtually inaugurated by the Hon'ble Union Education Minister, Shri Ramesh Pokhriyal 'Nishank' in October 2020 has become fully functional. The Digital Education Hub established with the support of an alumnus has strengthened the online teaching-learning activities. The Hub provided digital tablets to 40 needy students for joining online classes. I also place on record my appreciation for students' endeavors to make the institute proud in academics and extra-curricular activities.

IEST has taken all necessary public health measures for responding to the Covid-19 crisis. Sanitizer was prepared in-house in bulk quantity and distributed among the community around as a part of our outreach activities. A Covid-Care facility was set up for the students, employees, and their families in times of emergency with the support of Alumni.

I hope we continue our odyssey towards building IEST as an internationally acclaimed institute in the years to come.

I wish to thank all the stakeholders of the Institute for their help and support during this trying time.

Jai Hind!

A handwritten signature in black ink, appearing to read "Parthasarathi Chakrabarti" followed by the date "20.10.2021".

**Parthasarathi Chakrabarti**

Director  
IEST, Shibpur



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# **01**    **Organisation and Administration**





Established as the Calcutta Civil Engineering College in November 1856, this pioneering Institute, after several changes in its name at three different addresses, was lastly converted to an Indian Institute of Engineering Science and Technology by an amendment of the NITSER Act 2007. Today the Institute is an Institute of National Importance and its organizational and governing structure are on the lines of National Institutes of Technology (NITs). The Institute has four authorities, namely:

The Board of Governors	Authorities under the
The Senate	NITSER Act 2007
The Finance Committee	Authorities under the
The Building and Works Committee	IEST Statutes 2017

The NITSER Council co-ordinates the activities of the Institute and other Institutes governed under the same Act.

**The governing structure of the Institute is as below.**

- The President of India is the Visitor of IEST, Shibpur. As provided in the NITSER Act, 2007, the Visitor appoints the Chairperson and the Director of the Institute
- The Council of NITSER is the apex decision making body. The Council is headed by the Hon'ble Union Minister of Education and it comprises the Chairpersons and the Directors of the NITs, the IISERs and the IEST Shibpur, beside other members including three Members of Parliament.
- The Board of Governors is responsible for the general superintendence, direction and control of the affairs of the Institute.
- The Senate of the Institute has the control and general regulation, and is responsible for the maintenance of standards of instruction, education and examination in the Institute. The Senate is empowered to frame and revise curricula and syllabi for the course of studies for various departments and to promote research in academic development activities.
- The Finance Committee is empowered to examine and scrutinise the annual budget of the Institute and make recommendations on any financial proposal to the Board.
- The Building and Works Committee undertakes construction of all major works after obtaining necessary administrative approval and expenditure sanction from the Board; it also enjoys the power to give the necessary administrative approval and expenditure sanction for minor works and to undertake the same.

During the year under review the Institute authorities-initiated actions towards framing of a large number of rules, regulations, ordinance, etc.

## 1.1 Board of Governors

The Board of Governors of the Institute is constituted as per provisions of Section 11 of the NITSER Act, 2007. During 2020-2021, the composition of the Board was as below.

<b>Dr. Vasudev K. Aatre</b>  Distinguished Scientist & former Secretary, Department of Defense Research & Development and Scientific Advisor to Raksha Mantri. <b>Chairperson</b> (from 25.02.2019 to 24.02.2022) E-mail- vasudev.k.aatre@gmail.com	<b>Prof. Parthasarathi Chakrabarti</b>  Director, IEST, Shibpur, Howrah – 711 103. <b>Ex-Officio Member</b> Ph- 033-26682674 Fax- 03326687575 E-mail- director@iests.ac.in	<b>Additional Secretary (TE) &amp; CVO</b>  Ministry of Education, Govt. of India, Shastri Bhawan, New Delhi – 110 001. <b>Ex-Officio Member</b> Ph- 011-23381097 Fax- 011-23386903 E-mail- ashe -mhrd@gov.in
<b>Smt. Darshana M Dabral</b>  Joint Secretary & Financial Advisor to the Govt. of India, Ministry of Human Resource Development, Shastri Bhawan, New Delhi-110 001. <b>Ex-Officio Member</b> E-mail- jsfa.edu@giv.in Ph: 011-2338 2696	<b>Director, IISc, Bangalore</b>  Sir C.V. Raman Avenue, Bangalore – 560 012. <b>Ex-Officio Member</b> Ph: 080-2360-0690 / 2293-2222 Secy. to Director: 080-2293-2954 Fax: 91-80-23600936 Email: office.director@iisc.ac.in director@iisc.ac.in	<b>Director, IIT, Guwahati</b>  Guwahati – 781 039, India. <b>Member</b> (from 18.02.2019 to 07.02.2022) Email: director@iitg.ac.in
<b>Secretary, Department of Scientific &amp; Industrial Research (DSIR)</b>  DG, Council of Scientific and Industrial Research (CSIR), Ministry of Science & Technology, Technology Bhawan, New Mehrauli Road, New Delhi – 110 016. <b>Member</b> (from 18.02.2019 to 07.02.2022) E-mail- dgcsir@csir.res.in Ph: +91-11-23710472, 23717053.	<b>Secretary, Ministry of Steel</b>  Govt. of India Udyog Bhavan New - Delhi – 110 001. <b>Member</b> (from 18.02.2019 to 07.02.2022) E-mail- secy-steel@nic.in	<b>Prof. Rohini Godbole</b>  Centre for High Energy Physics IISC, Bangalore, Bengaluru – 560 012. <b>Member</b> (from 18.02.2019 to 07.02.2022) E-mail- dgcsir@csir.res.in Ph: +91-11-23710472, 23717053.
<b>Prof. P. S. Avadhani</b>  Director, IIIT, Agartala Agartala, Tripura – 799 046. <b>Member</b> (from 18.02.2019 to 07.02.2022) E-mail- psavadhani@yahoo.com psavadhani.csse@auvsp.edu.in	<b>Secretary, Higher Education Department, Govt. of West Bengal</b>  Bikash Bhawan, Salt Lake Kolkata- 700 091. <b>Ex-Officio Member</b> Email: highereducationwb@gmail.com Ph: 033 2321 1280	<b>Prof. Aditya Bandyopadhyay</b>  Professor, Department of Architecture, Town and Regional Planning, IEST, Shibpur (Senate nominated). <b>Member</b> (from 16.07.2019 to 15.07.2021) E-mail- bandyopadhyay.aditya@gmail.com adityabandyopadhyay@arch.iests.ac.in

<p><b>Prof. Shyamal Kumar Chattopadhyay</b> Professor, Department of Chemistry IEST, Shibpur (Senate nominated). <b>Member</b> (from 16.07.2019 to 15.07.2021) E-mail- shch20@hotmail.com shyamal@chem.iests.ac.in shyamalcg=hattopadhyay@gmail.com</p>	<p><b>Dr. Biman Bandyopadhyay</b> Registrar, IEST, Shibpur (up to 31.01.2021) <b>Secretary to BOG</b> Ph: 033-2668 1503 (O) Fax: (091)-(033)-2668-29 16 E-mail: regis@iests.ac.in</p>	<p><b>Prof. Suranjan Sinha</b> Registrar (Acting), IEST, Shibpur (from 01.02.2021)</p>
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## 1.2 The Senate

It is constituted under Section 14 of the National Institute of Technology ACT, 2007 (29 of 2007), the National Institutes of Technology (Amendment) ACT, 2012 (No. 28 of 2012), and the National Institutes of Technology, Science Education and Research (Amendment) ACT, 2014 (no. 9 of 2014). The Senate of the Institute is its principal academic authority. All permanent professors of the Institute are the members of Senate.

## 1.3 Finance Committee

<p><b>Dr. Vasudev K. Aatre</b> Distinguished Scientist &amp; former Secretary, Department of Defense Research &amp; Development and Scientific Advisor to Raksha Mantri. <b>Ex-Officio Chairperson</b></p>	<p><b>Prof. Parthasarathi Chakrabarti</b> Director, IEST, Shibpur. <b>Ex-Officio Member</b></p>	<p><b>Smt. Darshana M Dabral</b> Joint Secretary &amp; Financial Advisor to the Govt. of India, MoE, or her nominee. <b>Ex-Officio Member</b></p>
<p><b>Additional Secretary (TE) &amp; CVO</b> Ministry of Education, Govt. of India or his nominee Or Joint Secretary (NITs &amp; DL), MoE, Govt. of India or his/her nominee. <b>Ex-Officio Member</b></p>	<p><b>Prof. P. S. Avadhani</b> Director, IIIT, Agartala Agartala, Tripura – 799 046. <b>Member</b></p>	<p><b>Prof. Shyamal Kumar Chattopadhyay</b> Professor, Dept. of Chemistry, IEST, Shibpur. <b>Member</b></p>
	<p><b>Dr. Biman Bandyopadhyay</b> Registrar, IEST, Shibpur (from 01.04.2020 to 31.01.2021) <b>Prof. Suranjan Sinha</b> Registrar (Acting), IEST, Shibpur (from 01.02.2021) <b>Ex-Officio Member Secretary</b></p>	

From time to time, the Chairperson, in consultation with the Director, invites an expert as a special invitee. All financial proposals are placed before the Finance Committee before placing it to the Board for consideration and approval.

## 1.4 Building and Works Committee

The Building and Works Committee of the Institute is responsible for making technical scrutiny of the design, estimates and specifications of the material as may be considered necessary. It is also responsible for the enlistment of suitable contractors and the acceptance of tenders. It has the power to give directions for departmental works (where necessary) and to settle rates not covered by tender and settle claims and disputes with contractors.

The Committee undertakes construction of all major works after obtaining necessary administrative approval and expenditure sanction from the Board. It accords administrative approval and expenditure sanction for minor works and works of repair and maintenance within the approved budgetary provision of the Institute. It arranges the preparation of estimates of the cost of buildings and other capital works, minor works, repairs, maintenance, and the like and approves the cost estimates for minor works, minor repairs and maintenance.

During 2020-2021, the composition of the Committee was as below:

<b>Prof. Parthasarathi Chakrabarti</b> Director, IEST, Shibpur. <b>Ex-Officio Chairperson</b>	<b>Director or Deputy Secretary</b> or his nominee dealing with the Institute in the Ministry of Education, Government of India <b>Ex-Officio Member</b>	<b>Director or Deputy Secretary</b> or his nominee dealing with Finance of Institute in the Ministry of Education, Government of India <b>Ex-Officio Member</b>
<b>Prof. Sriman Kumar Bhattacharya</b> Vice Chancellor, Shiv Nadar University, Chennai, Kalavakkam - 603110, Tamil Nadu. <b>Member</b>	<b>Prof. Kalyan Kumar Bhar</b> Dean, Planning and Development, IEST, Shibpur (from 10.07.2020 to 14.02.2021) <b>Member</b>	<b>Prof. Sudip Kr. Roy</b> Dean, Planning and Development (Acting), IEST, Shibpur (from 01.04.2020 to 09.07.2020 and from 15.02.2021 to 27.10.2021) <b>Member</b>
<b>One expert each from Civil and Electrical Engineering Wing of Central or State Government or any autonomous body of repute</b> <b>Member (vacant)</b>	<b>Dr. Biman Bandyopadhyay</b> Registrar, IEST, Shibpur (from 01.04.2020 to 31.01.2021) <b>Ex-Officio Member Secretary</b>	<b>Prof. Suranjan Sinha</b> Registrar (Acting), IEST, Shibpur (from 01.02.2021) <b>Ex-Officio Member Secretary</b>

## 1.5 Important Functionaries

### Chairman, Council of NITSER

[Shri Ramesh Pokhriyal' Nishank'](#)  
Minister of Education, Government of India

### Chairman, Board of Governors

[Dr. Vasudev K. Aatre](#)

### Director

[Prof. Parthasarathi Chakrabarti](#)

### Deans

<b>Academic Affairs</b>	<a href="#">Prof. Susanta Chakraborty</a> (up to 29.07.2020) <a href="#">Prof. Sudip Kr. Roy</a> (from 30.07.2020)
<b>Faculty Welfare</b>	<a href="#">Prof. Prasanta Kumar Nandi</a>
<b>Research &amp; Consultancy</b>	<a href="#">Prof. Subhasis Bhattacharjee</a>
<b>Planning &amp; Development</b>	<a href="#">Prof. Sudip Kr. Roy</a> (up to 09.07.2020) <a href="#">Prof. Kalyan Kr. Bhar</a> (from 10.07.2020 to 14.02.2021) <a href="#">Prof. Sudip Kr. Roy</a> (from 15.02.2021)
<b>Student Welfare</b>	<a href="#">Prof. Debabrata Mazumdar</a>
<b>International Relations &amp; Alumni Affairs</b>	<a href="#">Prof. Arindam Biswas</a>

### Associate Deans

<b>Academic Affairs</b>	<a href="#">Prof. Rana Roy</a>
<b>Faculty Welfare</b>	<a href="#">Prof. Sulata Mitra</a>
<b>Research &amp; Consultancy</b>	<a href="#">Dr. Chinmay Bhattacharya</a>
<b>Student Welfare</b>	<a href="#">Dr. Asok Adak</a>

### Registrar

[Dr. Biman Bandyopadhyay](#) (till 31.01.2021)  
[Prof. Suranjan Sinha](#) (Acting Registrar) (from 01.02.2021)

## 1.6 Administration

<p><b>Director</b>            Prof. Parthasarathi Chakrabarti            Ph No: +91-33-26682674            Fax: +91-33-26687575            Email: director@iiests.ac.in</p> <p><b>Registrar</b>            Dr. Biman Bandyopadhyay            (till 31.01.2021)            M: +91-9874222228            Prof. Suranjan Sinha            Registrar (Acting)            M: +91-9433401631            Ph No: +91-33-26681503            Email: regis@iiests.ac.in</p>		
<b>Joint Librarian</b>  Dr. Hari Prasad Sharma Ph No: +91-33-26684561 (284) Email: sharma_hp@hotmail.com	<b>Deputy Registrar (S&amp;P)</b>  Shri Sambunath Datta Ph No: +91-33-26684561 M: +91-9433768194 Email: dr@iiests.ac.in	<b>Deputy Registrar (Admin)</b>  Dr. Devasis Datta Ph No: +91-33-26684561 M: +91-9477215168 Email: d3dr.iiests@gmail.com
<b>Assistant Librarian (Selection Grade)</b>  Shri Shushil Kumar Barman Ph No: +91-33-26684561 (291) Email: sushilbarman@gmail.com	<b>Deputy Registrar (Finance)</b>  Shri Alok Kr. Maity Ph No: +91-33-26684561 (216) Email: dr.finance@iiests.ac.in	<b>Deputy Registrar (Academic)</b>  Dr. Nirmalya Bhattacharya Ph No: +91-33-26688081 M: +91-9831212905 / 9830844455 Email: controller@iiests.ac.in
<b>Assistant Librarian</b>  Sri Abani Oraon Ph No: +91-33-26684561 (725) Email: abani@library.iiests.ac.in	<b>Assistant Registrar</b>  Shri Alok Kr. Mitra Ph No: +91-33-26684561 (276) Email: akmitra707@yahoo.co.in	<b>Assistant Registrar &amp; Internal Auditor</b>  Shri Shib Sankar Basak Ph No: +91-33-26684561 (378) M: +91-9434144611 Email: shibug9355@yahoo.co.in, arssb@iiests.ac.in
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<b>Chief Vigilance Officer</b> Prof. Abdur Rouf Department of Electrical Engineering Email: arouf@ee.iiests.ac.in	<b>First Appellate Authority</b> (Under the RTI Act 2005) Prof. Dipali Banerjee Department of Physics Email: faa@iiests.ac.in	<b>Nodal Officer</b> Dr. Biman Bandyopadhyay Ph No: +91-33-26681503 Email: regis@iiests.ac.in
<b>Chief Warden</b> Prof. Sudipta Mukhopadhyay Department of Mining Engineering Email: sudiptaiiest@gmail.com	<b>Central Public Information Officer</b> Dr. Hari Prasad Sharma Ph No: +91-33-26684561 (284) Email: sharma_hp@hotmail.com	<b>Superintending Engineer (Actg.)</b> Dr. Tapash Kumar Roy Department of Civil Engineering Ph No: +91-33-26684561(345) Email: uengineer@iiests.ac.in
<b>Workshop Superintendent</b> Dr. Dibyendu Chatterjee Email: dibyendu_66o@rediffmail.com	<b>Physical Instructor</b> Dr. Zia-Ul-Alam Email: alamzia2002@yahoo.com	<b>Physical Instructor</b> Sri Sandip Chatterjee Email: c.sandip2010@gmail.com
	<b>Medical Officer</b> Dr. Rubi Golder Ph No: +91-33-26684561 (332) Email: rubigolder@gmail.com	

## 1.7 Warden of Hostels

**Chief Warden:** Prof. Sudipta Mukhopadhyay

Name	Email Id	Hostel
Prof. Aditya Bandyopadhyay	bandyopadhyay.aditya@gmail.com	Wolfenden Hall
Shri Alok Kr. Mitra	akmitra7077@gmail.com	Hostel -14
Dr. Ananya Barui	ananya.pariksha@gmail.com	Sister Nivedita Hall
Dr. Ashis Kumar Bera	ashis@civil.iiests.ac.in	Hostel-11
Dr. Ayan Banerjee	ayanb12@gmail.com	Hostel-PG(H-13)
Dr. Chanchal Majumdar	chanchal@civil.iiests.ac.in	Richardson Hall
Prof. Chaitali Ray	chaitali@civil.iiests.ac.in	Pandya Hall
Dr. Dipankana Bhattacharjee	dipankana@civil.iiests.ac.in	Lt. Williams Hall of Residence
Dr. Nillohit Mukherjee	nillohit.mukherjee@gmail.com	A -39, A.K. Seal Hall (H-10), Downing
Dr. Nityananda Nandi	nityananda@aero.iiests.ac.in	MacDonald Hall
Dr. Pritam Saha	pritam@civil.iiests.ac.in	A.C. Roy Hall (H-7), A type Qrs (H-9 extn.)

Name	Email Id	Hostel
Shri Sambhunath Dutta	dattasn@gmail.com	B.Sen Hall (H-9)
Prof. S. K. Karmakar	skk.besus@gmail.com	D. Banerjea Hall (H-8)
Prof. Subhash Mondal	scmondall@gmail.com	Hostel-16
Prof. Sudipta Mukhopadhyay	sudiptaiiest@gmail.com	Hostel-15
Dr. Sujata Biswas	sujata@civil.iests.ac.in	Lt. Williams Hall of Residence
Dr. Sukumar Kundu	erskundu@gmail.com	Sen Hall
Dr. Tapash Kumar Roy	tapash2000@hotmail.com	Sengupta Hall

## 1.8 Head of the Departments

Departments	Name of Head	Tenure From	Tenure Upto
Aerospace Engineering and Applied Mechanics	Prof. Amit Roy Chowdhury	15.11.2018	02.06.2021
Architecture, Town and Regional Planning	Prof. Parthasarathi Mukhopadhyay	02.04.2018	09.07.2020
	Dr. Subrata Kr. Paul	10.07.2020	09.07.2022
Chemistry	Prof. Sudip Kr. Chattopadhyay	18.12.2019	17.12.2021
Civil Engineering	Prof. Anirban Gupta	10.07.2018	09.07.2020
	Prof. Ambarish Ghosh	10.07.2020	09.07.2022
Computer Science and Technology	Prof. Sekhar Mandal	03.04.2019	30.05.2021
Earth Science	Prof. Bhabani Prasad Mukhopadhyay	03.05.2019	02.05.2021
Electrical Engineering	Prof. Prasid Syam	01.06.2019	31.05.2021
Electronics and Telecommunication Engineering	Dr. Ayan Banerjee	15.11.2018	Till further order
Human Resource Management	Prof. Manas Kr. Sanyal	23.08.2004	Till further order
Humanities and Social Sciences	Dr. Partha Sarathi Roy	17.09.2018	16.09.2020
	Shri Rupen Basu Mallik	17.09.2020	16.09.2022
Information Technology	Prof. Hafizur Rahaman	11.07.2018	09.07.2020
	Dr. Sukanta Das	10.07.2020	09.07.2022

<b>Departments</b>	<b>Name of Head</b>	<b>Tenure From</b>	<b>Tenure Upto</b>
Mechanical Engineering	Prof. Partha Pratim Dey	08.05.2019	16.06.2021
Metallurgy and Materials Engineering	Dr. Manojit Ghosh	24.05.2019	07.06.2021
Mining Engineering	Prof. Sudipta Mukhopadhyay	22.11.2018	Till further order
Mathematics	Prof. Tapan Kr. Kar	04.07.2019	05.07.2021
Physics	Dr. Krishnendu Mukherjee	20.06.2019	21.06.2021

## **1.9 Heads of Schools/ Centres**

### **Schools**

<b>Schools</b>	<b>Name of Head</b>	<b>Tenure From</b>	<b>Tenure Upto</b>
M. N. Dastur School of Material Science and Engineering	Prof. Dipali Banerjee	01.02.2020	31.07.2020
	Prof. Anindita Sengupta	01.08.2020	31.01.2021
	Prof. Dipali Banerjee	01.02.2021	12.03.2021
Purabi Das School of Information Technology	Prof. Santi Prasad Maity	10.01.2020	09.07.2020
	Prof. Sulata Mitra	10.07.2020	09.01.2021
	Prof. Hafizur Rahaman	10.01.2021	09.07.2021
School of Community Science and Technology	Prof. Rana Roy	10.01.2020	09.07.2020
	Prof. Binay Krishna Ghorai	10.07.2020	09.01.2021
	Prof. Ajit Kr. Mahapatra	10.01.2021	09.07.2021
School of Disaster Mitigation Engineering	Prof. Souvanic Roy	10.01.2020	09.07.2020
	Head, Civil Engineering	10.07.2020	09.01.2021
	Prof. Aditya Bandyopadhyay	10.01.2021	09.07.2021
School of Ecology, Infrastructure and Human Settlement Management	Head, Architecture, Town and Regional Planning	13.03.2020	09.07.2020
	Prof. Anirban Gupta	10.07.2020	09.01.2021
	Prof. Parthasarathi Mukhopadhyay	10.01.2021	09.07.2021
School of Management Sciences	Prof. Amitava Basu Mallick	10.01.2020	09.07.2020
	Director	10.07.2020	31.07.2020
	Prof. Suranjan Sinha	01.08.2020	31.01.2021
	Prof. Binay Krishna Ghorai	01.02.2021	31.07.2021

Schools	Name of Head	Tenure From	Tenure Upto
School of Mechatronics and Robotics	Prof. Debasis Dutta	01.11.2019	30.04.2020
	Prof. Konika Das (Bhattacharya)	01.05.2020	31.10.2020
	Prof. Rana Roy	01.11.2020	01.05.2021
School of VLSI Technology	Prof. Anindita Sengupta	10.01.2020	09.07.2020
	Prof. Hafizur Rahaman	10.07.2020	09.01.2021
	Prof. Santi Prasad Maity	10.01.2021	09.07.2021

### **Centres**

Centres	Name of Head	Tenure From	Tenure Upto
Centre for Healthcare Science and Technology	Prof. Suranjan Sinha	10.01.2020	09.07.2020
	Prof. Asit Kumar Das	10.07.2020	09.01.2021
	Prof. Susanta Chakraborty	10.01.2021	09.07.2021
Centre for Water and Environmental Research	Prof. Debashis Moitra	10.01.2020	09.07.2020
	Prof. Chaitali Roy	10.07.2020	09.01.2021
	Prof. Ambarish Ghosh	10.01.2021	Till further order
Centre of Excellence in Green Energy and Sensor Systems	Prof. Susanta Kumar Parui	13.03.2020	13.09.2020
	Prof. Amitava Basu Mallick	14.09.2020	12.03.2021

### **New School**

School of Advanced Materials, Green Energy and Sensor Systems created through merger of *M. N. Dastur School of Materials Science and Engineering* with *Centre of Excellence in Green Energy and Sensor Systems*.

Schools	Name of Head	Tenure From	Tenure Upto
School of Advanced Materials, Green Energy and Sensor Systems	Prof. Dipali Banerjee	13.03.2021	Till further order



## **02** Human Resources



## Human Resources

As is true with the other CFTIs, sanctioned posts for both teaching and non-teaching posts are dependent on approved student intake of the Institute. Except in the case of employees paid from contingencies, the members of staff of the Institute are classified as under:-

*Academic staff:* Director, Deputy Director, Professor, Associate Professor, Assistant Professor, Professor Training and Placement, and such other academic posts as may be decided by the Board from time to time.

*Technical staff:* System Manager, Workshop Superintendent, Librarian, Scientific Officers, Research Engineers, Deputy Librarian, Assistant Workshop Superintendent, System Analyst, Programmer, Foreman, Technician, Instructor, Laboratory Assistant, Mechanic, Overseer, Technical Assistant, Draftsman, and such other technical posts as may be decided by the Board from time to time.

*Administrative and others staff:* Registrar, Deputy Registrar and Assistant Registrar, Accounts Officer, Audit Officer, Estate Officer, Executive Engineer, Assistant Engineer, Junior Engineer, Medical Officer, Medical Assistant, Horticultural Assistant or Officer, Office Superintendent, Security Officer, Stores Officer, Store Keeper, Office Assistants, Data Entry Operators and such other Administrative and other staff as may be decided by the Board from time to time.

Conversion of this institute from a State University to a CFTI was realized through enactment of the NITSER (Amendment) Act 2014.

The pay scale enjoyed by the employees are at par with that in other CFTIs and, as provided in the IEST Statutes, the employees of the Institute are entitled to allowances as admissible to the Central Government Employees. The employees of the Institute are governed by the Central Civil Services (Conduct) Rules, 1964.

The Institute is yet to frame the code of conduct for employees and, as such, the Institute follows the Central Civil Services (Classification, Control and Appeal) Rules, 1965 as per provisions laid down in Section 25 of the IEST Statutes. The leave for all the employees of the Institute is governed by the Central Civil Services (Leave) Rules 1972.

As per MHRD Guidelines the ratio of academic and non-academic staff members at the Institute should be around 1:1.1. But at the time of its conversion in 2014 the staff position was significantly skewed towards non-academic staff and right sizing will require some time.

### 2.1 Academic Staff

The Academic staff scenario in 2020-21 is shown in Table 2.1 and Table 2.2. Details of Academic staff members in various academic Departments, Schools and Centres are furnished below.

**Table 2.1: Regular Faculty members of Individual Department**

**Department of Aerospace Engineering & Applied Mechanics (AE & AM)**

Faculty Name	Designation	Highest Degree
Amit Roy Chowdhury	Professor	Ph.D.
Basudeb Bhattacharyya	Associate Professor	Ph.D.
Debashis Pal	Assistant Professor Grade I	Ph.D.
Indrajit Mukherjee	Assistant Professor Grade II	Ph.D.
Joydeep Bhowmik	Assistant Professor Grade II	Ph.D.
Koustuv Debnath	Professor	Ph.D.
Krishnendu Bhowmik	Assistant Professor Grade II	M.Sc. (Engineering)
Mihir Chandra Manna	Associate Professor	Ph.D.
Niloy Khutia	Associate Professor	Ph.D.
Nityananda Nandi	Associate Professor	Ph.D.
Pabitra Halder	Associate Professor	Ph.D.
Pratim Kumar	Assistant Professor Grade II	Ph.D.
Prince Raj Lawrence Raj	Assistant Professor Grade II	Ph.D.
Prithwish Kumar Das	Associate Professor	Ph.D.
Rana Roy	Professor	Ph.D.
Salil Haldar	Professor	Ph.D.
Santanu Majumder	Professor	Ph.D.
Subhasis Bhaumik	Professor	Ph.D.
Sujay Kumar Mukherjea	Professor	Ph.D.

**Department of Architecture, Town and Regional Planning (ARCH T & R P)**

Faculty Name	Designation	Highest Degree
Aditya Bandyopadhyay	Professor	Ph.D.
Amitava Roy	Associate Professor	Ph.D.
Arup Sarkar	Professor	Ph.D.
Bhaskar De	Assistant Professor Grade II	Ph.D.
Keya Mitra	Professor	Ph.D.
Parthasarathi Mukhopadhyay	Professor	Ph.D.
Soumen Mitra	Associate Professor	Ph.D.
Souvanic Roy	Professor	Ph.D.
Subrata Kumar Paul	Associate Professor	Ph.D.
Sutapa Das	Associate Professor	Ph.D.
Swati Saha	Professor	Ph.D.
Tuhin Subhra Maparu	Assistant Professor Grade II	Ph.D.

### School of Advanced Materials, Green Energy and Sensor Systems (SAMGESS)

Faculty Name	Designation	Highest Degree
Nillohit Mukherjee	Assistant Professor Grade II	Ph.D.
Santanu Maity	Assistant Professor Grade II	Ph.D.

### Department of Chemistry (CHEMISTRY)

Faculty Name	Designation	Highest Degree
Ajit Kumar Mahapatra	Professor	Ph.D.
Anup Mondal	Professor	Ph.D.
Binay Krishna Ghorai	Professor	Ph.D.
Chinmoy Bhattacharya	Associate Professor	Ph.D.
Jhuma Ganguly	Associate Professor	Ph.D.
Laksmikanta Adak	Assistant Professor Grade II	Ph.D.
Nanda Dulal Paul	Assistant Professor Grade I	Ph.D.
Papu Biswas	Associate Professor	Ph.D.
Prasanta Kumar Nandi	Professor	Ph.D.
Shyamal Kumar Chattopadhyay	Professor	Ph.D.
Sudip Kumar Chattopadhyay	Professor	Ph.D.
Ujjal Bhattacharjee	Assistant Professor Grade II	Ph.D.

### Center of Healthcare Science and Technology (CHST)

Faculty Name	Designation	Highest Degree
Ananya Barui	Assistant Professor Grade II	Ph.D.

### Department of Civil Engineering (CE)

Faculty Name	Designation	Highest Degree
Ambarish Ghosh	Professor	Ph.D.
Anirban Gupta	Professor	Ph.D.
Anuj Kishor Budhkar	Assistant Professor Grade II	Ph.D.
Aparna (Dey) Ghosh	Professor	Ph.D.
Arun Kumar Chakraborty	Associate Professor	MTRP
Ashis Kumar Bera	Associate Professor	Ph.D.
Asok Adak	Associate Professor	Ph.D.
Chaitali Ray	Professor	Ph.D.
Chanchal Majumder	Associate Professor	Ph.D.
Debabrata Mazumder	Professor	Ph.D.
Debashis Moitra	Professor	Ph.D.

<b>Faculty Name</b>	<b>Designation</b>	<b>Highest Degree</b>
Debojyoti Pandit	Assistant Professor Grade II	Ph.D.
Dipankana Bhattacherjee	Assistant Professor Grade II	Ph.D.
Kalyan Kr.Chattopadhyay	Professor	Ph.D.
Prasanta Chakraborty	Associate Professor	ME
Pritam Saha	Assistant Professor Grade I	Ph.D.
Sandip Chakraborty	Assistant Professor Grade II	M.E.
Sneha Murmu	Assistant Professor Grade II	M.E.
Soumya Bhattacharjya	Associate Professor	Ph.D.
Subrata Chakraborty	Professor	Ph.D.
Sudip Kr. Roy	Professor	Ph.D.
Sugato Pal	Associate Professor	M.E.
Sujata Biswas	Associate Professor	Ph.D.
Sujit Kumar Dalui	Assistant Professor Grade I	Ph.D.
Tapash Kumar Roy	Associate Professor	Ph.D.
Ujjwal Saha	Assistant Professor Grade I	Ph.D.

### **Department of Computer Science and Technology (CST)**

<b>Faculty Name</b>	<b>Designation</b>	<b>Highest Degree</b>
Abhik Mukherjee	Associate Professor	Ph.D.
Amit Kumar Das	Professor	Ph.D.
Apurba Sarkar	Associate Professor	Ph.D.
Ashish Kumar Layek	Assistant Professor Grade II	M.E.
Asit Kumar Das	Professor	Ph.D.
Biplab Kr. Sikdar	Professor	Ph.D.
Jaya Sil	Professor	Ph.D.
Malay Kule	Assistant Professor Grade II	Ph.D.
Manas Hira	Associate Professor	MTECH
Nirnay Ghosh	Assistant Professor Grade II	Ph.D.
Samit Biswas	Assistant Professor Grade I	Ph.D.
Sekhar Mandal	Professor	Ph.D.
Sipra Das (Bit)	Professor	Ph.D.
Somnath Pal	Associate Professor	M.E.
Sulata Mitra	Professor	Ph.D.
Surajeet Ghosh	Associate Professor	Ph.D.
Susanta Chakraborty	Professor	Ph.D.
Tamal Pal	Assistant Professor Grade II	M.E.
Uma Bhattacharya	Professor	Ph.D.

### Department of Earth Sciences (ES)

Faculty Name	Designation	Highest Degree
Ananya Mukhopadhyay	Associate Professor	Ph.D.
Atin Kumar Mitra	Assistant Professor Grade I	Ph.D.
Bhabani Prasad Mukhopadhyay	Professor	Ph.D.
Moumita Talukdar	Assistant Professor Grade II	Ph.D.

### Department of Electrical Engineering (EE)

Faculty Name	Designation	Highest Degree
Abdur Rouf	Professor	M.Tech.
Abhijit Chakrabarti	Professor	Ph.D.
Abhinandan De	Associate Professor	Ph.D.
Amal Barman	Associate Professor	M.E.
Amalendu Bikash Choudhury	Associate Professor	Ph.D.
Anindita Sengupta	Professor	Ph.D.
Aparajita Sengupta	Professor	Ph.D.
Ashoke Sutradhar	Professor	Ph.D.
Bhaskaran Barman	Assistant Professor Grade II	M.E.
Chandan Kumar Chanda	Professor	Ph.D.
Debabrata Roy	Professor	Ph.D.
Debjani Ganguly	Associate Professor	M.E.
Kaushik Mukherjee	Associate Professor	Ph.D.
Konika Das (Bhattacharya)	Professor	Ph.D.
Mainak Sengupta	Professor	Ph.D.
Paramita Chattopadhyay	Associate Professor	Ph.D.
Prasid Syam	Professor	Ph.D.
Sukanya Parui	Assistant Professor Grade I	Ph.D.
Suvarun Dalapati	Assistant Professor Grade I	Ph.D.

### Department of Electronics and Telecommunication Engineering (ETC)

Faculty Name	Designation	Highest Degree
Ankita Pramanik	Assistant Professor Grade I	Ph.D.
Ayan Banerjee	Associate Professor	Ph.D.
Chirasree Roy Chaudhuri	Associate Professor	Ph.D.
Debasis Mitra	Assistant Professor Grade I	Ph.D.

Monojit Mitra	Professor	Ph.D.
Partha Bhattacharyya	Associate Professor	Ph.D.
Parthasarathi Chakrabarti	Professor and Director	Ph.D.
Rik Chattapadhyay	Assistant Professor Grade II	Ph.D.
Santanu Das	Professor	Ph.D.
Susanta Kumar Parui	Professor	Ph.D.
Tamaghna Acharya	Associate Professor	Ph.D.

### **Department of Human Resource Management (HRM)**

Faculty Name	Designation	Highest Degree
Manas Kumar Sanyal	Professor	Ph.D.

### **Department of Humanities and Social Sciences (HSS)**

Faculty Name	Designation	Highest Degree
Averi Mukhopadhyay	Assistant Professor Grade II	Ph.D.
Madhumita Roy	Assistant Professor Grade II	Ph.D.
Mallika Ghosh Sarbadhikary	Associate Professor	M. PHIL.
Partha Sarathi Roy	Associate Professor	Ph.D.
Rupen Basu Mallik	Associate Professor	M.Com, ICWA
Subhasis Bandyopadhyay	Associate Professor	MA

### **Department of Information Technology (IT)**

Faculty Name	Designation	Highest Degree
Arindam Biswas	Professor	Ph.D.
Chandan Giri	Associate Professor	Ph.D.
Hafizur Rahaman	Professor	Ph.D.
Indrajit Banerjee	Associate Professor	Ph.D.
Prasun Ghosal	Associate Professor	Ph.D.
Ruchira Naskar	Assistant Professor Grade I	Ph.D.
Santi Prasad Maity	Professor	Ph.D.
Shyamalendu Kandar	Assistant Professor Grade II	MTECH
Sukanta Das	Associate Professor	Ph.D.
Surajit Kumar Roy	Associate Professor	Ph.D.
Tuhina Samanta	Associate Professor	Ph.D.

**Department of Mathematics (MATHEMATICS)**

<b>Faculty Name</b>	<b>Designation</b>	<b>Highest Degree</b>
Asoke Kumar Dhar	Professor	Ph.D.
Basudeb Mukhopadhyay	Professor	Ph.D.
Binayak Samadder Choudhury	Professor	Ph.D.
Guruprasad Samanta	Professor	Ph.D.
Murari Mitra	Professor	Ph.D.
Parbati Saha	Professor	Ph.D.
Pritha Das	Professor	Ph.D.
Sanat Kumar Majumder	Professor	Ph.D.
Sarita Ojha	Assistant Professor Grade II	Ph.D.
Shariful Alam	Professor	Ph.D.
Smita Pal (Sarkar)	Assistant Professor Grade I	Ph.D.
Tapan Kumar Kar	Professor	Ph.D.
Tapan Kumar Roy	Professor	Ph.D.
Ujjal Debnath	Associate Professor	Ph.D.

**Department of Mechanical Engineering (ME)**

<b>Faculty Name</b>	<b>Designation</b>	<b>Highest Degree</b>
Aritra Ganguly	Associate Professor	Ph.D.
Ashim Guha	Assistant Professor Grade I	Ph.D.
Bidyut Pal	Assistant Professor Grade II	Ph.D.
Bijan Kumar Mandal	Professor	Ph.D.
Debasish Dutta	Professor	Ph.D.
Partha Pratim Dey	Professor	Ph.D.
Santanu Das	Assistant Professor Grade II	Ph.D.
Santanu Kumar Karmakar	Professor	Ph.D.
Shyamal Chatterjee	Professor	Ph.D.
Sisir Kumar Guha	Professor	Ph.D.
Subhas Chandra Mondal	Professor	Ph.D.
Sudip Ghosh	Associate Professor	Ph.D.
Sujoy Kumar Saha	Professor	Ph.D.
Uttam Rana	Assistant Professor Grade II	Ph.D.

### Department of Metallurgy and Materials Engineering (MME)

Faculty Name	Designation	Highest Degree
Amitava Basu Mallick	Professor	Ph.D.
Debdulal Das	Associate Professor	Ph.D.
Gautam Anand	Assistant Professor Grade II	Ph.D.
Kaushik Das	Assistant Professor Grade I	Ph.D.
Manojit Ghosh	Associate Professor	Ph.D.
Partha Pratim Chattopadhyay	Professor	Ph.D.
Sukumar Kundu	Assistant Professor Grade I	Ph.D.
Sumit Ghosh	Associate Professor	M.E.
Swarup Kumar Ghosh	Professor	Ph.D.
Tapendu Mandal	Assistant Professor Grade II	M.Tech.

### Department of Mining Engineering (MINING)

Faculty Name	Designation	Highest Degree
Gopal Chandra Roy	Assistant Professor Grade I	Ph.D.
Indranath Sinha	Professor	Ph.D.
Md. Mirajul Islam	Assistant Professor Grade I	Ph.D.
Netai Chandra Dey	Professor	Ph.D.
Prabir Kumar Paul	Professor	Ph.D.
Pratik Dutta	Professor	Ph.D.
Sudipta Mukhopadhyay	Professor	Ph.D.

### Department of Physics (PHYSICS)

Faculty Name	Designation	Highest Degree
Abhijit Bisoi	Assistant Professor Grade I	Ph.D.
Amit Kundu	Associate Professor	Ph.D.
Debasis Ray	Assistant Professor Grade II	Ph.D.
Dipali Banerjee	Professor	Ph.D.
Dwipesh Majumder	Assistant Professor Grade I	Ph.D.
Krishnendu Mukherjee	Associate Professor	Ph.D.
Mojammel Haque Mondal	Assistant Professor Grade I	Ph.D.
Mousumi Basu	Professor	Ph.D.
Samar Jana	Associate Professor	Ph.D.
Sampad Mukherjee	Associate Professor	Ph.D.
Sukhendu Sekhar Sarkar	Professor	Ph.D.
Syed Minhz Hossain	Associate Professor	Ph.D.

### School of Mechatronics & Robotics (SOMR)

Faculty Name	Designation	Highest Degree
Tanmay Pal	Assistant Professor Grade II	Ph.D.

### School of Community Science & Technology (SOCST)

Faculty Name	Designation	Highest Degree
Jayati Bhowal	Assistant Professor Grade II	Ph.D.
Shantonu Roy	Assistant Professor Grade II	Ph.D.

### School of VLSI Technology (SOVT)

Faculty Name	Designation	Highest Degree
Tamal Ghosh	Assistant Professor Grade II	Ph.D.

**Table 2.2: Non-Regular Faculty Members**

#### Temporary Faculty

Name	Department / School / Centre
Aditi Sarkar	Mining Engineering
Amit Kumar Rai	Mechanical Engineering
Anirban Chakraborty	Electronics and Telecommunication Engineering
Apurba Das	Aerospace Engineering & Applied Mechanics
Avishhek Kumar	Metallurgy and Materials Engineering
Avisor Bhattacharya	Metallurgy and Materials Engineering
Basabdaata Palit	Electronics and Telecommunication Engineering
Debdeep Saha	Electrical Engineering
Deepti Ranjan Majhi	Civil Engineering
Dipankar Saha	Electronics and Telecommunication Engineering
Dulali Nag	Humanities and Social Sciences
Gaurav Saini	School of Advanced Materials, Green Energy and Sensor Systems
Ismail Mondal	Mining Engineering
Jhuma Dutta Choudhury	Humanities and Social Sciences
Jnui Deb Mallick Datta	School of Management Sciences
Joynarayan Mukherjee	Dr. M.N. Dastur School of Materials Science & Engineering
Kajal Mukhopadhyay	Electronics and Telecommunication Engineering
Kaunsar Jabeen	School of Community Science & Technology
Korak Sarkar	Aerospace Engineering & Applied Mechanics
Manas Rakshit	Electronics and Telecommunication Engineering

Name	Department / School / Centre
Manasi Das	School of Mechatronics & Robotics
Mithu Sarkar	Electrical Engineering
Mitrajit Ghosh	Center for Healthcare Science and Technology
Moumita Ghosh	School of Community Science & Technology
Mrinal Kanti Layek	Earth Sciences
Nitesh Mondal	Aerospace Engineering & Applied Mechanics
Parijat Pallab Jana	Dr. M.N. Dastur School of Materials Science & Engineering
Partha Sarathi Chowdhury	School of Management Sciences
Poulami Ghosh	Physics
Poulomi Mukherjee Mondal	School of Management Sciences
Pralay Kumar Talapatra	School of Management Sciences
Prasun Kumar Chatterjee	Civil Engineering
Rajarshi Chakravarti	Earth Sciences
Raju Prasad Mahato	Mechanical Engineering
Rana Basu	School of Management Sciences
Reetam Mondal	Electrical Engineering
Sananda Chatterjee	School of Mechatronics & Robotics
Sangita Deb Barman	Civil Engineering
Santanu Bose	Dr. M.N. Dastur School of Materials Science & Engineering
Satarupa Roychowdhury	School of Management Sciences
Shanujas.V	School of Management Sciences
Shashwati Banerjee	Humanities and Social Sciences
Siddharth Tamang	Mechanical Engineering
Subir Das	School of Mechatronics & Robotics
Suman Samanta	School of Management Sciences
Suman Samui	Electronics and Telecommunication Engineering
Vikash Kumar	Mechanical Engineering
Vinod Kumar Bussa	Electrical Engineering

### **Visiting Faculty**

Name	Department / School / Centre
Prof. Hiranmay Saha	School of Advanced Materials, Green Energy and Sensor Systems
Amal Bhattacharyya	Electrical Engineering
Ashok Kumar Moitra	Electrical Engineering
Baidya Nath Ray	Electronics and Telecommunication Engineering
Debasish S. Chakraborty	Center for Healthcare Science and Technology
Debojyoti Bandyopadhyay	Metallurgy and Materials Engineering

Name	Department / School / Centre
Gautam Bandyopadhyay	Electrical Engineering
Gautam Bhattacharya	Civil Engineering
Nil Ratan Bandyopadhyay	Dr. M.N. Dastur School of Materials Science & Engineering
Pallab Dutta	Center for Healthcare Science and Technology
Partha Chaudhury	School of Advanced Materials, Green Energy and Sensor Systems
Prasun Kumar Dutta	Aerospace Engineering & Applied Mechanics
Samarjit Sengupta	School of Advanced Materials, Green Energy and Sensor Systems
Sankar Dhar	Mechanical Engineering
Satadal Mal	Electrical Engineering
Siddhartha Mukherjee	School of Advanced Materials, Green Energy & Sensor Systems
Subrata Chatterjee	Metallurgy and Materials Engineering
Tapas Kumar Gangopadhyay	Earth Sciences

### **Contractual Faculty Members**

Name	Department / School / Centre
Chitrangada Das Mukhopadhyay	Center for Healthcare Science and Technology
Pranab Roy	School of VLSI Technology
Sudip Ghosh	School of VLSI Technology
Sumita Mukhopadhyay	School of Advanced Materials, Green Energy and Sensor Systems

### **Inspire faculty members**

Name	Department / School / Centre
Arik Kar	Chemistry
Snehangshu Patra	School of Advanced Materials, Green Energy and Sensor Systems
Subhabrata Koley	Aerospace Engineering & Applied Mechanics
Swatilekha Ghosh	MNDSMSE

### **UGC FRP Faculty Members**

Name	Department / School / Centre
Abhijit Majumdar	Physics
Manish Pal Chowdhury	Physics
Mrinal K. Bera	Chemistry

## 2.2 Non-Academic Staff

A list of employees along with their designations is provided in the Table 2.3.

**Table 2.3: Non Academic Staff in position during 01.04.2020 to 31.03.2021**

Name of The Employee	Designation
Abhijit Bhattacharyya	Assistant- SG-II
Abir Kumar Ganguly (State Govt. Employee)	U.D. Clerk
Ajoy Kumar Das	MTS (Workshop Attendant -III)
Alok Roy	Superintendent
Amal Kumar Mandal	Technical Assistant
Amalendu Sahoo	Sr. Technical Assistant
Amar Nath Dutta	MTS (Helper-II)
Amar Tarafder	Sr. Technical Assistant
Amarendranath Polley	MTS (Workshop Attendant-II)
Amitava Chowdhury	Technical Assistant
Amitava Pal	Technical Assistant
Amiya Kumar Paul	MTS (Sr. Peon)
Amiya Ratan Rout	Technical Assistant
Amrita Bandyopadhyay	Sr. Technical Assistant
Anindya Mukhopadhyay	Assistant- SG-II
Anjana Sengupta	Sr. Technical Assistant
Arabinda Samanta	MTS (Jr. Durwan)
Arati Majumdar	MTS (Sr. Peon)
Arindam Banerjee	Assistant- SG-II
Arpita Das	Assistant- SG-II
Arun Kr Patra	MTS (Sr. Cook)
Arun Kumar Ghosh	Sr. Superintendent
Arup Kumar Patra	Superintendent
Ashok Kumar Ghosh	MTS (Jr Cash Sarkar/RC Sup)
Ashok Kumar Roy	MTS (Cook)
Ashoke Halder	MTS (Jr. Driver)
Ashoke Routh	MTS (Sr. Sweeper)
Ashura Begam	MTS (Helper-III)
Asik Mohammad	MTS (Jr. Durwan)
Asim Das Chakraborty	Assistant- SG-II
Asish Kumar Paul	Sr. Technical Assistant
Asit Baran Dey	MTS (Sr. Peon)
Avijit Nath	MTS (Jr. Peon)

<b>Name of The Employee</b>	<b>Designation</b>
Ayandeb Datta	Assistant- SG-II
Bablu Santra	Technician - SG- II
Badal Seal	MTS (Sr. Durwan)
Bagala Prasad Patra	Technical Assistant - SG-I
Baidyanath Mondal	Assistant- SG-II
Balaram Ray	Technician - SG- II
Bapi Majhi	MTS (Jr. Durwan)
Bhanu Das	MTS (Sr. Durwan)
Bhola Prasad Harijan	MTS (Jr. Sweeper)
Bhulu Ghosh	MTS (Sr. Durwan) (Retired on 31.01.2021)
Bibhas Chandra Mitra	Sr. Technical Assistant
Bibhuti Bhusan Dey	MTS (Jr. Peon)
Bijit Kumar Dey	Technical Assistant
Bijon Sarkar	MTS (Helper-III)
Bikash Majhi	MTS (Cook)
Bimal Dutta	MTS (Jr. Peon)
Bimal Kumar Ghosh	MTS (Sr. Durwan)
Biplab Kayal	MTS (Helper-III)
Biplab Mukherjee	Superintendent
Bishnu Pada Choudhury	Technical Assistant
Biswajit Das	Sr. Technical Assistant
Biswajit Das (State Govt. Employee)	Store Helper
Biswajit Kar	MTS (Cook-Sr)
Biswajit Samanta	Technical Assistant
Biswajit Sarkar	MTS (Jr. Durwan)
Biswanath Darjee	MTS (Jr. Durwan)
Braja Gopal Koner	Technical Assistant
Brindaban Patta	Technical Assistant
Buddhadev Samanta	MTS (Sr. Mali)
Chaitali Bhattacharjee	MTS (Jr. Peon)
Chanda Devi	MTS (Helper-II)
Chandan Karmakar	MTS (Jr. Durwan)
Chandra Shekhar Malakar	MTS (Jr. Sweeper)
Chandrani Mukhopadhyay	Assistant- SG-II
Chinmoy Sana	Personal Assistant
Deb Kumar Jana	MTS (Helper-II)
Debabrata Patra	MTS (Sr. Durwan)

<b>Name of The Employee</b>	<b>Designation</b>
Debashis Mondal	MTS (Jr. Durwan)
Debasish Saha	Assistant- SG-II
Debendra Nath Ghosal	MTS (Sr. Durwan)
Debjit Bhowmik	Sr. Technical Assistant
Dharmendra Das	MTS (Sr. Peon)
Dhiman Chandra Das	MTS (Helper-III)
Dibyendu Paul	Technician - SG- II
Dilip Kumar Bag	MTS (Jr. Mali)
Dilip Kumar Das	MTS (Sr. Mali)
Dipendu Paul	MTS (Jr. Peon)
Ganesh Sardar	MTS (Sr. Durwan) (Retired 30.09.2020)
Gangadhar Nayak	MTS (Sr. Sweeper)
Gautam Biswas	Superintendent
Gautam Kumar Garai (State Govt. Employee)	Supervisor Inst (Retired 31.05.2020)
Gita Hela	MTS (Sr. Sweeper)
Gopal Chandra Parua	MTS (Sr. Peon)
Gour Mondal	MTS (Sr. Cash Sarkar) (Retired on 31.05.2020)
Gouranga Chowdhury	MTS (Jr. Durwan)
Haran Chandra Sadhukhan	Private Secretary
Harekrushna Dash	MTS (Jr. Durwan)
Hari Prasad Saha	Technical Assistant
Hiru Kumar Majhi (State Govt. Employee)	Hammer Man
Idrish Mallick	MTS (Jr. Sweeper)
Jagannath Roy	MTS (Helper-I) (Retired on 30.06.2020)
Jahar Pal	MTS (Sr. Peon)
Janardan Kar	Technical Assistant
Jayanta Kumar Chandra	Technical Assistant - SG-I (Retired on 30.11.2020)
Jayanta Kundu	Technician - SG- II
Jaydeb Barua	MTS (Jr. Sweeper)
Joydeb Dolai	MTS (Cook)
Joydeb Ganguly	MTS (Helper Gr. - I)
Judhistir Mandal	Superintendent
Julfiker Ali Molla	MTS (Sr. Peon)
Kakali Pakhira Pan	MTS (Jr. Peon)
Kalyan Prasad Pathak	MTS (Cook)
Kanai Das	MTS (Sr. Peon) (Retired on 31.12.2020)
Kankar Mohan Das	Technical Assistant

<b>Name of The Employee</b>	<b>Designation</b>
Kashi Nath Singh	Superintendent
Keyarani Mandal	Technical Assistant
Krishna Chakraborty	MTS (Jr. Peon)
Kumaresh Dey	MTS (Jr. Peon)
Lakshman Hansda	MTS (Sr. Peon)
Laloo Hela	MTS (Jr. Sweeper)
Madanmohan Bose	Superintendent
Mahadev Biswas	Superintendent
Mahesh Das	MTS (Sr. Durwan)
Mahua Bandopadhyay (Sarkar)	MTS (Jr. Peon)
Malati Dey	MTS (Jr. Peon)
Malay Garai	Personal Assistant
Mamit Mitra	Personal Assistant
Manas Kumar Saha	MTS (Cook)
Manoj Bhagat	MTS (Jr. Peon)
Mantu Chakraborty	MTS (Head Mali)
Mantu Goswami (Manna)	Superintendent
Md Murtuza	MTS (Helper-II)
Md Riaz	MTS (Jr. Sweeper)
Md Shamim	MTS (Workshop Attendant-III)
Md Sirajuddin	MTS (Helper-II) (Retd. On 31.08.2020)
Menoka Turi	MTS (Jr. Sweeper)
Milan Kanti Dey	Technical Assistant - SG-II (Retired on 30.06.2020)
Milan Majumder	MTS (Sr. Farash)
Milon Kumar Das	MTS (Jr. Peon)
Mina Routh	MTS (Jr. Sweeper)
Mintu Charan Khan	Sr. Personal Assistant
Mithilesh Kumar Roy	MTS (Jr. Driver)
Mohini Mohan Debsharma	Technical Assistant
Moumita Sahoo Porya	Senior Pharmacist
Mrinmoy Kumar Jana	MTS (Jr. Peon)
Murali Mohan Mohanty	MTS (Cook)
Murari Mondal	MTS (Helper-II)
Nageswar Mahato	MTS (Jr. Sweeper)
Nani Gopal Roy	Technical Assistant
Narayan Chandra Dash	MTS (Jr. Peon)
Naresh Bhagat	MTS (Jr. Sweeper)

<b>Name of The Employee</b>	<b>Designation</b>
Nemai Charan Bal	MTS (Sr. Durwan)
Nilufar Ahmed	Nurse
Nimain Charan Satapathy	Superintendent
Niranjan Nayak	MTS (Sr. Sweeper)
Nirmal Kar	MTS (Cook)
Papiya Chattopadhyay	Nurse
Partha Sarathi Baruri	Technical Assistant
Partha Sarathi Nath	Assistant- SG-II
Parthasarathi Maity	Superintendent
Pijush Datta	Assistant- SG-II
Pintu Das	MTS (Jr. Durwan)
Prabir Naskar	MTS (Helper-II)
Pradip Das	MTS (Jr. Durwan)
Pradip Kr Dey	Technician - SG- II
Pradip Kumar Das	Technical Assistant
Pradip Mistry	Technical Assistant
Pradut Kr Manna	MTS (Sr. Peon)
Pramila Nayak	MTS (Sr. Sweeper) (Retd. On 30.06.2020)
Prasanta Gope	Sr. Technical Assistant
Prasanta Mallick	MTS (Jr. Peon)
Pratap Pramanick (State Govt. Employee)	Duplicating Operator (Retd. On 31.01.2021)
Prodip Kumar Roy	Sr. Technical Assistant
Prosenjit Panja	MTS (Sr. Peon)
Purnendu Bera	MTS (Sr. Peon)
Rabi Nayak	MTS (Jr. Durwan)
Rabi Sankar Kandar	Senior Pharmacist
Rabin Das	MTS (Sr. Peon)
Rabin Jana	MTS (Cook)
Rabindra Nath Banerjee	Methor Fitter
Radhashyam Chatterjee	MTS (Cook)
Raja Banerjee	Superintendent
Rajat Mukhopadhyay	Sr. Technical Assistant
Rajendra Bhagat	MTS (Helper-II)
Rajesh Routh	MTS (Jr. Sweeper)
Rajib Bandyopadhyay	Technical Assistant
Rajkumar Dhali	MTS (Jr. Mali)
Rajkumar Dome	MTS (Sr. Sweeper)

<b>Name of The Employee</b>	<b>Designation</b>
Rakesh Kumar Nayak	MTS (Jr. Peon)
Raktim Maity	Sr. Technical Assistant
Ram Brij Prasad Harijan	MTS (Sr. Durwan)
Ram Chandra Routh	MTS (Sr. Sweeper)
Ram Prasad Routh	MTS (Jr. Sweeper)
Ram Sunder Yadav	Assistant- SG-II
Rama Roy	MTS (Sr. Peon)
Ramesh Halder	Technical Assistant
Ranjan Kumar Biswas	Technical Assistant - SG-I
Ranjan Kumar Pal	MTS (Cook)
Rankanidhi Nayak	MTS (Sr. Sweeper)
Ranu Dey	MTS (Sr. Peon)
Rasbihari Chakrabarti	Superintendent
Richard Francis Subba	MTS (Sr. Peon)
Rita Ghosh	MTS (Helper-III)
Ruma Das Ghosh	MTS (Helper-III)
Ruma Naskar Chakraborty	Superintendent
Rumeli Bose	Technical Assistant
Sadhu Thakur	MTS (Jr. Mali)
Saibal Ghosh	Technician - SG- II
Sajal Kumar Chakraborty	Sr. Technical Assistant
Saleha Begum	MTS (Sr. Peon)
Salil Kumar Dalui	Technical Assistant
Samarendra Nath Ghosh (State Govt. Employee)	U.D. Clerk (Retd. On 30.04.2020)
Sandip Pramanick	MTS (Jr. Peon)
Sanjay Ghosh	MTS (Sr. Peon)
Sanjay Singh	MTS (Helper-III)
Sanjib Das	MTS (Cook)
Sanjoy Bhagat	MTS (Helper-III)
Sanjoy Ghosh	MTS (Jr. Durwan)
Sanjoy Naskar	Technical Assistant
Sankar Karmakar	MTS (Cook)
Santanu Chattopadhyay	Technical Assistant - SG-I
Santanu Ganguly	Assistant - SG-II
Santanu Paramanik	MTS (Jr. Peon)
Santosh Kumar Kayal	Technical Assistant
Sapani Nayak	MTS (Jr. Durwan)

<b>Name of The Employee</b>	<b>Designation</b>
Sarbani Barari	Technical Assistant
Sarbani Sarkar	Technical Assistant
Sarojit Das	Assistant - SG-II
Satya Narayan Karmakar	MTS (Lab Attendant-III)
Satyajit Barua	Superintendent
Saumendu Atta	Library & Information Assistant
Sekhar Rao	MTS (Jr. Sweeper)
Shyamal Kr Manna	Assistant- SG-II
Sibaprasad Jana	MTS (Sr. Durwan)
Sibu Das	MTS (Jr. Driver)
Sidheswar Roy	MTS (Jr. Mali)
Sintu Das	Technical Assistant
Sisir Kumar Roy	MTS (Jr. Durwan)
Sk Karim	MTS (SR. MALI) (Expired on 14.05.2020)
Snehashis Saha	Technical Assistant
Snigdha Dutta Panja	Nurse
Soma Naskar Sardar	Technical Assistant
Somnath Das	Assistant- SG-II
Soumen Gope	Technical Assistant
Sourasis Mitra	Assistant- SG-II
Souvik Patra	Technical Assistant
Subhadra Manna	MTS (Jr. Peon)
Subhajit Biswas	Technical Assistant
Subhas Sarkar	MTS (Jr. Peon)
Subhasish Pradhan	Technical Assistant
Subhra Roy	Sr. Stenographer
Subir Ghosh	MTS (Sr. Cyclo.OP)
Subrata Baidya	Assistant- SG-II
Subrata Chakraborty	MTS (Sr. Peon)
Suchita Khakha	Assistant- SG-II
Sudama Chowdhury	MTS (Jr. Durwan)
Sudarsan Mahato	MTS (Jr. Durwan)
Sudipta Mandal	Work Assistant (Dresser)
Sugata Munshi	Sr. Technical Assistant
Sujan Sarkar	Assistant- SG-II
Sujata Mandi	Assistant- SG-II
Sujata Misra	Technical Assistant

<b>Name of The Employee</b>	<b>Designation</b>
Sujit Mazumdar	Sr. Stenographer
Sukumar Sarkar	MTS (Sr. Peon)
Sumitra Bagchi	Sr. Technical Assistant
Sunil Kr Manna	Superintendent
Surajit Das	Assistant- SG-II
Suresh Chandra Naik	MTS (Helper-III)
Susanta Bhattacherjee	MTS (Helper-II)
Susanta Dhara	Sr. Technical Assistant
Susanta Kumar Chakravorty	Technical Assistant - SG-I
Susanta Pal	MTS (Jr. Sweeper)
Sushil Kumar Dey	MTS (Jr. Durwan)
Susmita Sarkar	Superintendent
Sutap Chakraborty	Sr. Technical Assistant
Swapan Banerjee	MTS (Sr. Peon) (Retired on 30.11.2020)
Swapan Chakraborty	MTS (Sr. Durwan)
Swapan Kumar Jana	Technical Assistant
Swaroop Shobhan Mukherjee	Technical Assistant
Swati Kar (Deb)	Superintendent
Tamal Kumar Das	Superintendent
Tapan Oraon	MTS (Jr. Sweeper)
Tarak Das	MTS (Sr. Durwan)
Tarak Majhi	MTS (Cook)
Tarak Nath Das	Superintendent
Tarak Nath Dey	MTS (Jr. Peon)
Tarak Nath Jana	MTS (Sr. Durwan)
Taraprasanna Ganguly	MTS (Cook)
Tarun Paul	Sr. Personal Assistant
Tarun Chandra Das	MTS (Cook)
Tarun Kanti Mitra	Assistant- SG-II
Tinku Das	MTS (Jr. Mali)
Tushar Kanti Mitra	MTS (Sr. Durwan)
Ujjal Kumar Gupta	Sr. Superintendent (Retd. On 30.09.2020)
Utpal Ghosh	Assistant- SG-II
Uttam Chatterjee	Assistant- SG-II
Uttam Kumar Dolai	MTS (Cook)
Uttam Pal	MTS (Jr. Peon)
Yeasin Mullick (State Govt. Employee)	Turner Cum Fit.
Anjan Kumrar Sur	Sr, Peon

## 2.3 Non -Teaching Officers

Details of incumbent officers have been provided in Table 2.4.

**Table 2.4: List of Non -Teaching Officers.**

Name of The Employee	Designation
Abani Oraon	Assistant Librarian
Alok Kumar Maity	Deputy Registrar
Alok Kumar Mitra	Assistant Registrar
Biman Bandyopadhyay	Registrar (Retired on 31.01.2021)
Bivore Das	Assistant Registrar
Dipankar Chakrabarty	Assistant Registrar
Devasis Datta	Deputy Registrar
Hari Prasad Sharma	Joint Librarian
Nirmalya Kumar Bhattacharyya	Deputy Registrar
Rubi Golder	Medical officer
Sambhunath Datta	Deputy Registrar
Shib Sankar Basak	Assistant Registrar
Sushil Kumar Barman	Assistant Librarian (Selection Grade}
Usha Sankar Bhattacharya	Assistant Training Officer

## 2.4 Non-Teaching Contractual Employees

The list of non-teaching contractual employees is provided in Table 2.5..

**Table 2.5: List of Non-Teaching Contractual Employees.**

Name	Designation	Department /School / Office / Section / Cell	Working since
Aloke Mondal	Group-D	School of VLSI Technology	11-12-2014
Amal Das	Technical Assistant	Purabi Das School of Information Technology	06-03-2013
Arindam Bhattacharjee	Office Assistant	Office of the Director	19-05-2008
Asim Deb	Advisor Training & Placement	Human Resource Management	21-06-2016
Asish Bag	Accounts Assistant	Finance Office	04-01-2016
Avijit Banerjee	Assistant (Maintenance of Information System)	Finance Office & Office of the Dean, Academic	18-02-2009
Avijit Das	Driver	Automobile Engineering Section	26-06-2012
Bimal Adhya	Project Office Staff (Group-C) Category	Office of the Dean, Research & Consultancy	18-06-2010

<b>Name</b>	<b>Designation</b>	<b>Department /School / Office / Section / Cell</b>	<b>Working since</b>
Bishwarup Bhattacherjee	Project Office Staff (Group-C) Category	Office of the Dean, Research & Development	18-06-2010
Dibyendu Banerjee	Assistant Engineer (Civil)	Office of the University Engineer	15-01-2009
Dinabandhu Sadhukhan	Group-D	Information Technology	18-02-2009
Dipsikha Chandra (Pal)	Computer Assistant	School of the Management Sciences	30-05-2008
Goutam Bandyopadhyay	Accountant (Contractual)	Finance Office	03-06-2006
Goutam Paul	Technical Assistant	School of VLSI Technology	31-07-2015
Goutam Sarkar	Office Assistant	School of the Management Sciences	01-01-2010
Indrajit Ghosh	Information cum Data Entry Assistant	Ramanujan Central Library	24-09-2015
Kanchan Kumar Maji	Accounts Assistant	Finance Office	01-01-2010
Koushik Dey	Group-D	School of VLSI Technology	18-02-2009
Kumar Nayak	Laboratory Attendant	School of Materials Science & Engineering	10-12-2009
Malay kumar Dhir	Office Assistant	Information Technology	17-02-2009
Malay Kundu	Scientific Officer	School of Materials Science and Engineering	12-10-2010
Manick Chandra Pal	Group-D	TEQIP Office	22-12-2014
Manoranjan Jana	Project Office Staff	Office of the Dean, Research & Consultancy	01-10-2012
Monoj Das	Physical Trainer-Cum- Ground Maintenance Staff	Dean of Students' Affairs	21-02-2011
Mouli Das	Technical Support Staff	Electronics and Tele Communication Engineering	29-05-2013
Mousumi Shaw (Das)	Library Assistant	School of the Management Sciences	01-01-2010
Pradip Kumar Majumder	Office Peon	School of Materials Science & Engineering	10-12-2009
Pranab Satpathi	Office Peon	School of the Management Sciences	01-01-2010
Rabindra Nath Das	Group-D	Purabi Das School of Information Technology	04-09-2006
Rajat Mullick	Office Peon	School of Community Science & Technology	01-01-2010

<b>Name</b>	<b>Designation</b>	<b>Department /School / Office / Section / Cell</b>	<b>Working since</b>
Ratna Ghosh	Technical Assistant	Electronics and Tele Communication Engineering	08-10-2007
Saikat Ganguli	Accounts Assistant	Finance Office	01-01-2016
Sambhu Meta	Document Preparation Assistant	Office of the Dean Academic	06-08-2015
Sanchayita Dhara	Technical Assistant	Information Technology	18-06-2007
Sanjay Dey	Project Office Staff (Group-C) Category	Office of the Dean, Research & Consultancy	12-10-2010
Sanjay Sarkar	Office Assistant	School of Materials Science & Engineering	10-12-2009
Sandipan Patra	Technical Assistant	Mining Engineering	07-08-2015
Shiladitya Bhandary	Sr. Network Assistant	Department of Website & IT Infrastructure Committee	14-06-2012
Sougata Das	Project Office Staff	Office of the Dean, Research & Consultancy	27-09-2012
Sourav Kundu	Technical Assistant	Advanced Tribology Laboratory (Dept. of ME)	09-05-2012
Subhasree Majumder	Part time Office Assistant	Equal Opportunity Cell & Finance Office	03-05-2010
Sudip Bhattacharjee	Laboratory Attendant	School of Materials Science & Engineering	10-12-2009
Sudipta Das	Junior Assistant	Human Resource Management	21-09-2015
Suhrid Bakshi	Technical Assistant	Office of the Dean, Alumni & International Affairs	12-06-2007
Sukanta Guha	Office Peon	School of the Management Sciences	11-01-2010
Sukhen Adhikari	Project Office Staff	Office of the Dean, Research & Consultancy	01-10-2012
Suman Sarkar	Group-D	Information Technology	17-02-2009
Susanta Sarma	Office Assistant	Purabi Das School of Information Technology	02-02-2004
Suvankar Bose	Technical Support Staff	Electronics and Tele Communication Engineering	28-05-2013
Swapan Kumar Patra	Project Office Staff (Group-C) Category	Office of the Dean, Research & Consultancy	18-06-2010
Uttam Kayal	Driver	Automobile Engineering Section	26-06-2012

## 2.5 Faculty/ Officers/ Staff (Superannuated)

As the Institute was transformed from a State University to a Centrally Funded Technical Institute, the age of Superannuation of teachers was changed from 60 to 65. The list of staff members who retired during the period (01.04.2020 to 31.03.2021) is furnished in Table 2.6.

**Table 2.6: List of Faculty/Officers/Staff (Superannuated).**

Name of the Employee	Date of superannuation
Prof. Jagabandhu Dey	30.04.2020
Sri Samarendranath Ghosh	30.04.2020
Sri Goutam Kumar Garai	30.05.2020
Sri Gour Mondal	31.05.2020
Sri Jagannath Roy	30.06.2020
Sri Milan Kanti Dey	30.06.2020
Smt. Promila Nayak	30.06.2020
Md. Sirajuddin	31.08.2020
Sri Ganesh Ch. Sardar	30.09.2020
Sri Ujjal Kumar Gupta	30.09.2020
Sri Jayanta Kumar Chandra	30.11.2020
Sri Swapna Banerjee	30.11.2020
Sri Kanai Das	31.12.2020
Sri Santanu Chattopadhyay	31.12.2020
Sri Bhulu Ghosh	31.01.2021
Sri Pratap Pramanik	31.01.2021
Dr. Biman Bandyopadhyay	31.01.2021
Prof. Achin Kumar Chowdhuri	31.01.2021
Prof. Bibhutosh Adhikari	28.02.2021

## 2.6 Faculty Expired before Superannuation

**Table 2.7: Name of Faculty Expired before Superannuation.**

Name of the Employee	Date
Prof. Kalyan Kumar Bhar	29.03.2021





# **03** Academic Programmes



### 3. Academic Programmes

The Institute offers the following undergraduate and postgraduate programmes.

- Four-year B.Tech. Degree Programme
- Five-year Dual Degree (B.Tech.- M.Tech.) Programme
- Five-Year B.Arch. Degree Programme
- Two-Year M. Tech Degree Programme
- Two-Year M. Plan. Degree Programme
- Two-Year M.Sc. Programme
- Two Year MBA Programme

#### 3.1 Four-year B. Tech. Degree Programme

The Institute offers **Four-year full-time** programme leading to **B.Tech. Degree** in the following nine disciplines:

- Aerospace Engineering
- Civil Engineering
- Computer Science and Technology
- Electrical Engineering
- Electronics and Telecommunication Engineering
- Information Technology
- Mechanical Engineering
- Metallurgy and Materials Engineering
- Mining Engineering

On the basis of performance of a student, options are offered to (i) change discipline at the end of second semester and (ii) switch over to Dual Degree (B.Tech.-M. Tech. programme), at the end of sixth semester, for completing M. Tech. programme along with the B.Tech. programme by studying for one more year.

#### 3.2 Five Year B. Arch. Degree Programme

The Institute offers **Five-year full time** programme in Architecture leading to B.Arch. Degree.

### 3.3 Two-Year M. Tech. Degree Programme

The Institute offers **Two-year full-time** programme leading to **M. Tech. Degree** in the following fifteen disciplines:

- Applied Mechanics - Aerospace Engineering & Applied Mechanics Department
- Civil Engineering - Civil Engineering Department
- Computer Science and Engineering - Computer Science and Technology Department
- Electrical Engineering - Electrical Engineering Department
- Electronics and Telecommunication Engineering - Electronics and Telecommunication Engineering Department
- Renewable Energy Science and Technology - Centre of Excellence for Green Energy & Sensor Systems
- Biomedical Engineering - Centre for Healthcare Science and Technology
- Safety & Occupational Health - Centre for Healthcare Science and Technology
- Information Technology - Information Technology Department
- Materials Science & Engineering - School of Materials Science & Engineering
- Metallurgy & Materials Engineering - Metallurgy and Materials Engineering Department
- Mechanical Engineering - Mechanical Engineering Department
- Mechatronics - School of Mechatronics & Robotics
- Mining Engineering - Mining Engineering Department
- Geoinformatics - Mining Engineering Department
- VLSI Design - School of VLSI Technology

All the above-mentioned Engineering Departments including Architecture offer 2-year full time PG programme leading to M. Tech. and MOP (for Architecture) Degrees. The admission is made through the Centralised Counselling for M. Tech./ M. Arch./ M. Plan. system for the NITs and CFTIs.

Details of specialization for the courses are furnished in Table 3.1.

**Table 3.1: Details of M. Tech. / MOP Programmes**

Department	PG Program (Specialisation)
Aerospace Engineering and Applied Mechanics	Mechanics of Fluids Mechanics of Solids
Architecture Town & Regional Planning	Urban & Regional Planning
Centre for Healthcare Science and Technology	Biomedical Engineering Safety and Occupational Health

Department	PG Program (Specialisation)
Centre of Excellence for Green Energy & Sensor Systems	Renewable Energy Science and Technology
Department of Civil Engineering	Environmental Engineering Geotechnical Engineering Structural Engineering Transportation Engineering Water Resources Engineering
Department of Computer Science & Technology	Computer Science & Engineering
Department of Electrical Engineering	Control System & Instrumentation Power & Energy Systems Power Electronics, Machines and Drives
Department of Information Technology	Information Technology
Department of Mechanical Engineering	Machine Design Heat Power Engineering Production Engineering
Department of Metallurgy & Materials Engineering	Iron and Steel Technology Surface Engineering
Department of Mining Engineering	Geoinformatics Mining Engineering
Department of Electronics and Telecommunication Engineering	Communication Engineering & Signal Processing Digital Systems Microwave & Communication Engineering
School of Materials Science & Engineering	Materials Science & Engineering
School of Mechatronics & Robotics	Mechatronics
School of VLSI Technology	VLSI Design

### 3.4 Two-Year M.Sc. Degree Programme

The Institute offers **Two-year full time** programme leading to M.Sc. **Degree** in the following five disciplines

- Chemistry- Chemistry Department
- Food Processing & Nutrition Sciences- School of Community Science and Technology
- Applied Geology- Earth Science Department
- Applied Mathematics- Mathematics Department
- Physics-Physics Department

### 3.5 Two-Year MBA Programme

The Institute offers a **Two-year full time** MBA programme by School of Management Sciences.

### 3.6 Ph.D. programme

The Institute offers **full time** Doctoral Programme to obtain Ph.D. Degree in (i) Architecture, (ii) Engineering, (iii) Science and, (iv) Management

### 3.7 Student strength

**Table 3.2: Students Strength as on 31.03.2021**

Category	UG				PG				Ph.D.				Total	
	Male		Female		Male		Female		Male		Female			
	NPH	PH	NPH	PH	NPH	PH	NPH	PH	NPH	PH	NPH	PH		
General	765	23	193	5	355	1	112	0	372	3	147	0	1976	
SC	307	1	72	0	110	0	32	0	127	0	33	0	682	
ST	142	0	48	0	24	0	5	0	4	0	0	0	223	
EWS	96	1	24	0	50	0	10	0	3	0	3	0	187	
OBC	542	4	117	2	173	1	33	0	89	0	16	0	977	
<b>Total</b>	<b>1852</b>	<b>29</b>	<b>454</b>	<b>7</b>	<b>712</b>	<b>2</b>	<b>192</b>	<b>0</b>	<b>595</b>	<b>3</b>	<b>199</b>	<b>0</b>	<b>4045</b>	

**Table 3.3: Ph.D. Students at IIESTS**

Ph.D. Students	2014-15	2015-16	2016-17	2017-18	2018-19	2019-2020	2020-21
No. of Full Time Admitted	259	131	71	171	52	85	72
Degree Awarded	52	57	74	83	63	96	108

## **3.8 Institute Result**

### **I. Statistics of Examination Year 2021.**

<b>Course</b>	<b>Appeared</b>	<b>Passed</b>	<b>Pass Percentage</b>
Bachelor of Architecture	20	20	100
Bachelor of Technology Under Five Year Dual Degree (B.Tech. - M.Tech.) Programme in Mechanical Engineering	1	1	100
Bachelor of Technology Under Five Year Dual Degree (B.Tech. - M.Tech.) Programme in Civil Engineering	1	1	100
Bachelor of Technology Under Five Year Dual Degree (B.Tech. - M.Tech.) Programme in Electrical Engineering	1	1	100
Bachelor of Technology Under Five Year Dual Degree (B.Tech. - M.Tech.) Programme in Electronics & Telecommunication Engineering	2	2	100
Bachelor of Technology Under Five Year Dual Degree (B.Tech. - M.Tech.) Programme in Metallurgy & Materials Engineering	1	1	100
Bachelor of Technology Under Five Year Dual Degree (B.Tech. - M.Tech.) Programme in Information Technology	2	2	100
Bachelor of Technology Under Five Year Dual Degree (B.Tech. - M.Tech.) Programme in Aerospace Engineering	2	2	100

### **II. Statistics of Examination Year 2021.**

<b>Course</b>	<b>Appeared</b>	<b>Passed</b>	<b>Pass Percentage</b>
Bachelor of Technology in Mechanical Engineering	60	60	100
Bachelor of Technology in Civil Engineering	85	85	100
Bachelor of Technology in Electrical Engineering	73	73	100
Bachelor of Technology in Electronics & Telecommunication Engineering	53	53	100
Bachelor of Technology in Metallurgy & Materials Engineering	26	26	100
Bachelor of Technology in Mining Engineering	29	29	100
Bachelor of Technology in Computer Science and Technology	71	71	100
Bachelor of Technology in Information Technology	69	69	100
Bachelor of Technology in Aerospace Engineering	26	26	100

**III. Statistics of Examination Year 2020 (For Dual Degree Students).**

Course	Appeared	Passed	Pass Percentage
Bachelor of Technology Under Five Year Dual Degree (B.Tech. - M.Tech.) Programme in Mechanical Engineering	3	3	100
Bachelor of Technology Under Five Year Dual Degree (B.Tech. - M.Tech.) Programme in Civil Engineering	7	7	100
Bachelor of Technology Under Five Year Dual Degree (B.Tech. - M.Tech.) Programme in Electrical Engineering	2	2	100
Bachelor of Technology Under Five Year Dual Degree (B.Tech. - M.Tech.) Programme in Electronics & Telecommunication Engineering	2	2	100
Bachelor of Technology Under Five Year Dual Degree (B.Tech. - M.Tech.) Programme in Information Technology	1	1	100

**IV. Statistics of Examination Year 2021(For Dual Degree Students).**

Course	Appeared	Passed	Pass Percentage
Master of Technology Under Five Year Dual Degree (B.Tech. - M.Tech.) Programme in Mechanical Engineering	3	3	100
Master of Technology Under Five Year Dual Degree (B.Tech. - M.Tech.) Programme in Civil Engineering	7	7	100
Master of Technology Under Five Year Dual Degree (B.Tech. - M.Tech.) Programme in Electrical Engineering	2	2	100
Master of Technology Under Five Year Dual Degree (B.Tech. - M.Tech.) Programme in Electronics & Telecommunication Engineering	2	2	100
Master of Technology Under Five Year Dual Degree (B.Tech. - M.Tech.) Programme in Information Technology	1	1	100

**V. Statistics of Examination Year 2021.**

Course	Appeared	Passed	Pass Percentage
Master of Technology in Mechanical Engineering	19	19	100
Master of Technology in Civil Engineering	46	44	95.65
Master of Technology in Electrical Engineering	22	20	90.9
Master of Technology in Electronics & Telecommunication Engineering	29	29	100

Course	Appeared	Passed	Pass Percentage
Master of Technology in Metallurgy and Materials Engineering	2	2	100
Master of Technology in Mining Engineering	5	5	100
Master of Technology in Computer Science & Engineering	14	14	100
Master of Technology in Information Technology	14	14	100
Master of Planning	11	11	100
Master of Urban and Regional Planning	2	2	100
Master of Technology in Applied Mechanics	14	11	78.57
Master of Technology in Geoinformatics	12	12	100
Master of Technology in Renewable Energy Science and Technology	6	6	100
Master of Technology in Safety and Occupational Health	7	7	100
Master of Technology in Biomedical Engineering	7	7	100
Master of Technology in Materials Science and Engineering	6	6	100
Master of Technology in VLSI Design	16	16	100
Master of Technology in Mechatronics	12	12	100
Master of Science in Chemistry	20	20	100
Master of Science in Applied Mathematics	21	21	100
Master of Science in Physics	22	22	100
Master of Science in Applied Geology	22	22	100
Master of Science in Food Processing & Nutrition Science	14	14	100
Master of Business Administration	14	14	100

### **3.9 Convocation**

The Seventh Annual Convocation of the Institute, supposed to be organized within 31<sup>st</sup> March, 2021 was held on June 30, 2021 in ONLINE mode. Dr. Vasudev K. Aatre, Former Director General, Defence Research and Development Organization (Goi) & Former Scientific Adviser to Raksha Mantri & Chairperson, Board of Governors, IEST, Shibpur, presided over the function. Prof Ashutosh Sharma, Secretary- Department of Science and Technology, Goi delivered the

Convocation Address as the Chief Guest. Prof. Parthasarathi Chakrabarti, Director, IEST, Shibpur delivered the Welcome Address.

Total number of Degree recipients in this Convocation was 940. Degrees and prizes has been awarded in this Convocation to a total of 482 Undergraduate students of 10 courses, 315 postgraduate students from different courses, 59 Dual Degree students of six courses and 84 Ph.D. Fellows who have completed their studies and passed the examinations during this period. Medals have been awarded to 39 candidates who have secured highest marks in different disciplines. The President of India Gold Medal has been awarded to the student Sayan Seal, CST Department who secured 1<sup>st</sup> position among the undergraduates of all ten engineering disciplines taken together. GANESH CHANDRA MITRA MEMORIAL MEDAL has been awarded to the student Riya Das, Mathematics Department who secured 1<sup>st</sup> position among the postgraduates of all the disciplines taken together. Some endowment medals also have been awarded to the students who have stood first in their respective disciplines or have secured highest marks in particular subject.



# **04** Academic Units





## 4.1 Aerospace Engineering and Applied Mechanics

The Department of Applied Mechanics was established as a major engineering department in 1947, and from 2008 the Department was renamed as the Department of Aerospace Engineering and Applied Mechanics. The Department offers undergraduate program in Aerospace Engineering and postgraduate programs in different areas of Applied Mechanics. Till date, the prominent research areas of the department are Aerodynamics, Aerospace structures, High speed flow, Fluid dynamics, Turbulence, Biomechanics, Robotics and Mechatronics, Structural Dynamics and Earthquake Engineering, Soil-Structure Interaction, Hydraulics etc. Recent sponsors of research projects at the department include: DST, DRDO, NAL, AICTE, UGC, BARC, BRNS, MHRD, Ministry of Earth Science and CSIR. The research outcomes of the department can be gauged by the significant number of publications made by faculty members in journals of repute.

- **List of Awards / laurels / achievements of Faculty member**

- a) Dr. Apurba Das received RUSA 2.0 sponsored project as Co-PI, awarded by RUSA, 2020.

- **Workshops / Conferences / Seminars attended in India and abroad**

- a) Short-term course entitled 5-Day Faculty Development Program on EMERGING TRENDS IN RENEWABLE ENERGY TECHNOLOGIES (ETRET 2020) organized by NIT Arunachal Pradesh from 16/11/2020 to 20/11/2020 by Dr. Apurba Das.
  - b) Short-term course entitled short term course on RECENT ADVANCEMENTS IN MICROMANUFACTURING organized by NIT, Uttarakhand from 23/11/2020 to 27/11/2020 by Dr. Apurba Das.
  - c) Short-term course entitled FDP program on 3D Printing & Design organized by IIT Ropar from 01/02/2021 to 05/02/2021 by Dr. Apurba Das.
  - d) Webinar entitled Webinar on CFD in Microfluidics and Biomedical Devices organized by Ansys Software Pvt. Ltd., India from 19/06/2020 to 19/06/2020 by Dr. Debashis Pal.
  - e) Webinar entitled Advances in Aerospace Engineering organized by Dept. of AE & AM, IIEST Shibpur from 19/03/2021 to 20/03/2021 by Dr. Santanu Majumder.

- **Sponsored Programme Organised**

- a) Webinar entitled Advances in Aerospace Engineering sponsored by TEQIP-III on 19/03/2021 for 2 days by Dr. Apurba Das, Dr. KorakSarkar, Dr. Sujay Kumar Mukherjea, Dr. Indrajit Mukherjee, Dr. Niloy Khutia, Dr. Debashis Pal, Dr. Prince Raj Lawrence Raj, and Dr. Joydeep Bhowmik.

## 4.2 Architecture, Town and Regional Planning

The Department of Architecture, Town and Regional Planning at the Indian Institute of Engineering Science and Technology, Shibpur has a long and rich history. Shortly after Independence, in 1949, two sister Departments were established at the erstwhile Bengal Engineering College, that is, the Department of Architecture headed by Mr. G K Paknikar and the Department of Town and Regional Planning headed by Mr. Abani Kumar De. The former offered the first 5-Year undergraduate degree in architecture of the country (Bachelor of Architecture-B Arch), the latter offered the first 2-Year postgraduate diploma in town and regional planning of the country (Diploma in Town and Regional Planning-DTRP).

Later, in October 1952, the two Departments merged to form the Department of Architecture, Town and Regional Planning headed by Mr. Joseph Allen Stein, the renowned American architect, who has left his indelible mark in the post-independence architecture of India. The DTRP programme subsequently became a full-time course in Master of Town and Regional Planning (MTRP) from 1975.

In 2019, responding to the requirements of the present times, the postgraduate programme was upgraded as Master of Planning (specialization in Urban and Regional Planning). This was done to broaden the horizon of the Department in terms of academics, research and students' employment opportunities.

In its first ever participation as an independent entity in the National Institutional Ranking Framework (NIRF) for Architecture, approved by the Ministry of Human Resource Development, the Department obtained the sixth position in India rankings 2020, from amongst 66 participating institutions and departments of architecture.

Now, as an integral part of the IEST, the department has expanded considerably with varied areas of research that include the following Architecture and Built Form, Computer Aided Architecture, Vernacular and Rural Architecture, Energy and Building, Urban Design, Architectural Conservation, Housing and Human Settlement Planning, Transportation Planning, Remote Sensing and Geographical Information System, Environmental Planning and Management, Rural Planning and Development, Regional Planning and Development, Earthquake resilient Buildings and Built form, Urban Planning/Town Planning, Infrastructure Planning, Urban administration, management and finance, Climate Change and Human Settlements. Presently the department has developed several state-of-the-art facilities for the benefit of the students, such as Material Museum for permanent display of samples of building materials, Computer Aided Architectural Design laboratory, Multimedia Simulation Laboratory and Remote Sensing and GIS laboratory.

- **Workshops / Conferences / Seminars attended in India and abroad**
  - a) National seminar entitled One Day National Online Seminar on "Role of Architects and Planners in 'Aatmanirbhar Bharat': Contributions and Opportunities" organized by CoA TRC from 30/03/2021 to 30/03/2021 by Dr. Tuhin Subhra Maparu.
  - b) Short-term course entitled Opportunities and Challenges in Sustainable Construction Practices organized by AICTE and IIT-BHU from 01/02/2021 to 06/02/2021 by Dr. Sutapa Das.
  - c) Webinar entitled Esri Webinar on Geospatial Analytics: Emerging Trends and Applications organized by Esri India from 11/08/2020 to 11/08/2020 by Dr. Tuhin Subhra Maparu.
  - d) Webinar entitled IEI Technical Webinar on Building with Arches, Vaults and Domes for a Sustainable Future organized by The Institution of Engineers (India) from 20/10/2020 to 20/10/2020 by Dr. Subrata Kumar Paul.
  - e) Webinar entitled Conserving Resources for Entire Life Cycle of Commercial Buildings through Design organized by National Productivity Council from 26/02/2021 to 19/03/2021 by Dr. Sutapa Das.
  - f) Webinar entitled Planning and Design of Sustainable Transportation Infrastructure organized by Dept. of Civil Engg., IEST Shibpur from 08/03/2021 to 12/03/2021 by Dr. Soumen Mitra.

### 4.3 Chemistry

The over a century old department has a glorious past. The Department, besides engaging itself in undergraduate and postgraduate teaching has a heritage of conducting research in various fields. At present, the faculty members are involved in research in the frontier areas of Chemistry and Chemical Physics, which include Coordination & Bioinorganic Chemistry, Carbohydrate Chemistry, Electrochemistry & Corrosion Science, Fuel Cell Technology, Molecular Recognition & Supra-molecular Chemistry, Structural Chemistry, Catalysis, Synthetic Organic & Organometallic Chemistry, Thin Film Semiconductor, Solar Photo-voltaic & Photo-electrochemical Cells, Non-linear Optical Phenomena: Modelling & Computation, Non-equilibrium Statistical Mechanics, Relativistic & non-relativistic Electronic Structure Theory, and Fluorescence Spectroscopy and Imaging. The department is endowed with a number of research projects sponsored by various funding agencies. The department has also been selected for MHRD special grant and DST-FIST and UGC-SAP programmes.

**• List of Awards / laurels / achievements of Faculty member**

- a) Dr. Jhuma Ganguly was honored by the Fellow of the Indian Chemical Society, Fellow membership No, F-8312 (LM) by Indian Chemical Society.
- b) Dr. Laksmikanta Adak was awarded by the International joint research project Institute for Chemical Research (ICR), Kyoto University, Japan.
- c) Dr. Laksmikanta Adak was awarded SERB-DST Research Project by SERB-DST Govt. of India, New Delhi.
- d) Dr. Laksmikanta Adak was awarded WB-DST Research Project by Science & Technology and Biotechnology Department, Government of West Bengal, India.

**• Workshops / Conferences / Seminars attended in India and abroad**

- a) International conference entitled Two International Webinar on Learning Chemistry during Covid-19 organized by DBT Star College from 30/09/2020 to 01/10/2020 by Dr. Ajit Kumar Mahapatra.
- b) National conference entitled Frontier Topics in Chemical Sciences organized by Department of Chemistry from 17/12/2020 to 17/12/2020 by Prof. Binay Krishna Ghorai.
- c) National seminar entitled Five Days National Webinar under TEQIP-III on Catalysis in Synthesis organized by Department of Chemistry National Institute of Technology, Manipur from 01/11/2020 to 05/11/2020 by Dr. Ajit Kumar Mahapatra.
- d) National workshop entitled IIT Pedagogy on Fundamentals of Effective Manuscript Writing organized by Indian Institute of Technology Indore, India from 02/12/2020 to 04/12/2020 by Dr. Laksmikanta Adak.
- e) National workshop entitled QIP Sponsored FDP on Nanomaterials for Next Generation Applications organized by Indian Institute of Technology Indore, India from 27/03/2021 to 27/03/2021 by Dr. Laksmikanta Adak.
- f) Webinar entitled Proposal Writing Workshop- A SERB initiative organized by SERB, New Delhi, India from 06/07/2020 to 06/07/2020 by Dr. Laksmikanta Adak.

**• Sponsored Programme Organised**

- a) National Conference entitled Frontier Topics in Chemical Sciences 2020sponsored by Department of Chemistry, IEST Shibpur on 17/12/2020 for 1 day by Prof. Shyamal Kumar Chatopadhyay, Dr. Laksmikanta Adak, Dr. Ujjal Bhattacharjee.
- b) Webinar entitled IPR webinar: Insight of Intellectual Property Rights sponsored by IEST, Shibpur on 23/01/2021 for 1 day by Dr. Jhuma Ganguly.

## 4.4 Civil Engineering

Founded in May, 1856, the Department of Civil Engineering, as old as the Bengal Engineering College itself, is a 149-year-old Engineering Department. The Department was, originally established as the Civil Engineering College, Calcutta with the object of imparting training to personnel in the field of Civil Engineering for the fulfilment of the need of the Public Works Department of the Government of India. Since then, it has been striving to develop and maintain a glorious national tradition of producing quality Civil Engineers for the country. In course of time the Civil Engineering College was upgraded to the status of a full-fledged Government Engineering College with various disciplines, and renamed as the Bengal Engineering College. Then it was upgraded to Bengal Engineering and Science University, Shibpur. Presently, the institute has been converted to an Institute of National Importance and named as IEST Shibpur. The Civil Engineering department, at present, provides facilities for research and development in the broad areas of Structural Engineering, Geo-Technical Engineering, Water Resources Engineering, Environmental Engineering and Transportation Engineering. The Department has been associated with various sponsored projects in the above fields. It is one of the Government of India recognized Quality Improved Programme Centres and associated with topical research and development activities. The Department regularly undertakes sponsored research from the AICTE, MHRD, UGO, CSIR etc.

- **List of Awards / laurels / achievements of Faculty member**
  - a) Dr. Dipankana Bhattacherjee received Second Best Paper Prize, sponsored by Springer Nature in the Theme of "Numerical and Physical Modeling and Soil Dynamics" presented at Indian Geotechnical Conference.
- **Workshops / Conferences / Seminars attended in India and abroad**
  - a) International conference entitled Recent Advances in Computational and Experimental Mechanics organized by IIT Kharagpur from 04/09/2020 to 06/09/2020 by Dr. Debojyoti Pandit.
  - b) International conference entitled 1st Online International Conference on Recent Advances in Computational and Experimental Mechanics 2020 (ICRACEM 2020) organized by Indian Institute of Technology, Kharagpur, on 04/09/2020 06/09/2020 by Dr. Soumya Bhattacharya.
  - c) National conference entitled Indian Geotechnical Conference 2020-DEVELOPMENTS IN GEOTECHNICAL ENGINEERING FOR SUSTAINABLE TOMORROW (DIGEST) organized by Indian Geotechnical Society Visakhapatnam Chapter from 17/12/2020 to 19/12/2020 by Dr. Saptarshi Kundu.
  - d) Short-term course entitled 5-day Online Faculty Development Program on DEEKSHARAMBH (Student Induction Program) organized by NATIONAL INSTITUTE OF TECHNOLOGY PATNA on 14/08/2020 by Dr. Dipankana Bhattacherjee.

- e) Webinar entitled Atmospheric Disaster, Covid 19 and the Way Forward organized by Mizoram University from 01/06/2020 to 01/06/2020 by Dr. Sangita Deb Barman.
  - f) Webinar entitled Emerging Trends in Civil Engineering organized by Easwari Engineering College from 15/06/2020 to 17/06/2020 by Dr. Sangita Deb Barman.
  - g) Webinar entitled Sustainable Building Materials & Products for Green Buildings organized by Easwari Engineering College from 08/07/2020 to 08/07/2020 by Dr. Sangita Deb Barman.
  - h) Webinar entitled Sustainable Pavement: Current Research & Practices (SPCRP-2020) organized by Indira Gandhi Institute of Technology Sarang, Odisha from 11/09/2020 to 15/09/2020 by Dr. Tapash Kumar Roy.
- **Sponsored Programme Organised**
    - a) Short-term course entitled Machine Learning and Applications sponsored by TEQIP-III on 12/12/2020 for 7 days by Dr. Ujjwal Saha.
    - b) International Conference entitled 2nd International Conference on Advanced Technologies for Industrial Pollution Control (ATIPC -2020) SELF-SPONSORED on 16/12/2020 for 3 days by Prof. Debabrata Mazumder, Dr. Asok Adak and Prof. Chanchal Majumder.
    - c) Webinar entitled Introduction to Structural Health Monitoring for Civil Structures sponsored by TEQUIP III on 27/01/2021 for 3 days by Dr. Debojoyoti Pandit.
    - d) National Workshop entitled Application of Non-conventional pavement materials and NDT in road infrastructure - Current practice and Future trends sponsored by TEQIP-III on 01/02/2021 for 5 days by Dr. Tapash Kumar Roy.
    - e) Webinar entitled Sustainable Health & Environmental Management During Covid-19 Pandemic sponsored by TEQIP-III on 18/02/2021 for 3 days by Dr. Asok Adak.
    - f) Webinar entitled Planning and Design of Sustainable Transportation Infrastructures sponsored by TEQIP- Phase III on 08/03/2021 for 5 days by Dr. Dipankana Bhattacherjee.
    - g) Webinar entitled Planning and Design of Sustainable Transportation Infrastructures sponsored by TEQIP-III on 08/03/2021 for 5 days by Dr. Pritam Saha.
    - h) Webinar entitled Women in Engineering: Past and Present sponsored by TEQIP-III on 08/03/2021 for 1 day by Dr. Ujjwal Saha.
  - **Achievements / Awards received by the students (Academic, Extracurricular, Co-Curricular)**
    - a) B.Tech. student Rishav Dutta obtained Innovative Student Projects Award 2020 (BE/B.Tech. level) from The Indian National Academy of Engineering (INAЕ), Year: 2020.
    - b) Rishav Dutta, B.Tech. student, received Best B Tech Project Award in the Department of Civil Engineering IEST, Shibpur 2020 ( Prof. Prabodh Chandra Mitra Memorial Award ), Year: 2020.

## 4.5 Community Science and Technology

Indian Institute of Engineering Science and Technology, Shibpur, (formerly Bengal Engineering & Science University, Shibpur) has a fairly long tradition of rendering community service modestly besides conducting traditional academic programs. Community service rendered by the faculty members has been ranging from formulation to implementation of specific programs like technology innovation and technology transfer to the rural sector. To facilitate such activities of the faculty members of the Institute, the School of Community Science & Technology (SOCSAT) was created in 2004. The school since then made significant progress in the areas of basic and applied research in combination with various training programs that are congruous with the objectives of the school. M.Sc. Course in "Food Processing and Nutrition Science" has been started from the Academic session (2007-2008).

## 4.6 Computer Science and Technology

The Department of Computer Science and Technology (CST) was established in 1982. Since its inception the department has played an important role in developing a vibrant and forward-looking academic environment. The department always maintains state-of-the-art infrastructure and facilities for advanced research and consultancy. It was accredited by the National Board of Accreditation (NBA) as 'A' grade and received ISO 9000 certification in 1999-2000. The department was also honoured as the DST-FIST sponsored department in 2004. Some of the thrust areas identified by the department are Machine learning including Deep Neural Networks and Soft Computing techniques, Generative Adversarial Networks, Internet Of Things, Wireless Sensor Network, Mobile Computing, Cryptanalysis, Image, Text, Audio and Video Processing including Medical Image Analysis, Code Mixed Bilingual Language Processing, Low Resource Real Time Image Processing and Sequence Tagging, Managing Uncertainty in Primary Healthcare. Further, the department also conducts advanced research on Interconnection Network, Mixed Signal Design and Testing, Text Mining in Diverse Social Media Data Analysis, Theory and Applications of Cellular Automata in Diverse Fields, Synthesis and Testing of Reversible Circuit, Digital Micro Fluidic Bio Chip and Nano-Biochip, Pattern Recognition, and Bio Informatics.

- **List of Awards / laurels / achievements of Faculty member**
  - a) Prof Asit Kumar Das received best paper award of title "Uncovering patterns in heavy-tailed networks: A journey beyond scale-free", CODS-COMAD 2021.
- **Workshops / Conferences / Seminars attended in India and abroad**
  - a) International conference entitled International Symposium on Devices, Circuits and Systems organized by Hiroshima University, Japan from 03/03/2021 to 05/03/2021 by Dr. Malay Kule.
  - b) Webinar entitled Webinar on "Aims and Objectives of All India Survey on Higher Education" organized by AISHE Cell, West Bengal State University jointly with IQSE, WBSU from 23/08/2020 to 23/08/2020 by Dr. Malay Kule.

- c) Webinar entitled Webinar on BLOCKCHAIN TECHNOLOGY organized by Central Manufacturing Technology Institute, Tumkur Road Bengaluru, 560022 from 15/09/2020 to 15/09/2020 by Dr. Malay Kule.
- **Sponsored Programme Organised**
  - a) Webinar entitled International Webinar on Computational Advances for Biomedical Engineering sponsored by IEST, Shibpur on 23/11/2020 for 5 days by Dr. Malay Kule.

## 4.7 Disaster Mitigation Engineering

In the spirit of developing interdisciplinary research facilities and the development of different mitigation processes against natural hazards, the School of Disaster Mitigation Engineering has been established by this university in 2007. The experimental workstation of the school is under construction near the 2nd gate of this University, where a 1.5 m x 1.5m Horizontal single Axis Seismic Table has been installed in October 2008 under the TEQIP program. For the school, housing has been provided on the 3rd floor in the 8th storied new building under construction in the Southern portion of the University. Proposal for setting up Post Graduate Course in Disaster Mitigation Engg./ Earthquake Engg. is being framed for introduction shortly.

## 4.8 Earth Sciences

The subject of geology was first introduced in the civil engineering curricula more than a century ago in the Department of Civil Engineering. Furthermore, Geology became an important section of the Department of Mining ever since its establishment in 1956. With introduction of master's programme in applied geology, the department bifurcated and the Department of Geology came into being in 2005. It was later named as the Department of Earth Sciences to host teaching and research in a wide spectrum of Earth Sciences. This diversification from classical Geology has helped students to undertake research programs in other interesting fields like Hydrogeology with an application of GIS and Remote Sensing, Geophysics and Tectonic Geomorphology.

Students of the present department are being trained by permanent and eminent visiting faculty members involved in frontier areas of research like Structural Geology, Igneous & Metamorphic Petrology, Sedimentology, Sequence Stratigraphy, Basin tectonics, Hydrogeology, Environmental Geology etc. The students are taught to apply their knowledge to cope up with the need of hydrogeological problems, natural hazard mitigation, petroleum or mineral exploration, and geoscience research at par with international standard. Students are also getting the facility of performing analogue experiments in Experimental Geology Laboratory which will help students to understand the dynamics of Earth and process-response systems. The curriculum has been revised to meet the requirements of various Industries and National competitive examinations. The knowledge is helping them to get jobs in Government organizations like SWID, Geological Survey of India, Oil sectors, Mining Industries, and Academic Departments. Training of application of geological knowledge, which is essential for mine planning, handling other problems of mining geology and engineering geology are also being imparted to them in this course.

Within a short span of time, the department has been able to accommodate several numbers of research scholars for the Ph.D. degree. At this stage, they are enrolled and working on research problems in Hydrogeology, GIS-Remote Sensing applications, Sedimentology and Structural geology with Mathematical modelling. For the purpose of study, fund has been sanctioned through projects, mentored by the faculty members from the Department of Science &Technology, Govt. of India, University Grants Commission, ONGC& WBPCL. The Department aims to focus on future efforts to apply geoscientific research in multidisciplinary subjects.

## **4.9 Ecology, Infrastructure and Human Settlement Management**

The School came into existence in 2006 to conduct inter-disciplinary and cutting edge research, postgraduate studies and to extend technical support services on issues having the critical interface of ecology, human settlements and infrastructure development. The School's activities focus on Spatial and Environmental Planning, Natural Resource Management, and Green Architecture. Identified thrust areas for the department include Spatial and Environmental Planning, Community based Natural Resource Management, Carrying Capacity Assessment for Urban Settlements, Human Settlement Planning for Ecologically Fragile Areas, Planning for Heritage Conservation, and Climate Change and Human Settlements. The areas in which research work is undertaken also include Natural Resource Extraction and Livelihood, Sustainability for Local Communities, Green Building Techniques, and Institutional Reform and Capacity Building for Urban, Rural and Natural Resource Governance.

## **4.10 Electrical Engineering**

A combined Electrical and Mechanical Engineering Department was established in the then Bengal Engineering College in the year 1902. Demerger of the departments took place in 1912 and the Department came into existence. The degree course in Electrical Engineering was introduced during the year 1935-36. First batch of students with M.E. Degree in Electrical Engineering came out in 1955. Since 1989 this department has been serving as one of the QIP Centres for Post Graduate Studies and Research in Electrical Engineering. Research specializations offered in the department include Control Systems, Electrical Machines, Power Electronics, and Power Systems. The faculty members are actively engaged in numerous collaborative and sponsored research projects. In the last few years, a number of research projects with a funding of around Rs.5 crores are under execution.

There have been consistent efforts in the field of Magnetics for the last few years. The notable Research Projects from the Department of Electronics and IT, Gol going on during the 2020-21 are Wide- band Gap Based Semiconductor Device for High Current Industry Applications; MEMS for Electric Machines and Drives, Magnetic Core Power Inductors. Also, international Research Project Collaboration under the SPARC Scheme of MHRD is going on with, MIT USA in vibration monitoring systems for switched reluctance motor-based drives. Research work on high efficiency power electronic converter technology using next generation Si/SiC-based switching devices for high frequency operation under reduced losses, is under development with University of Hiroshima, Japan.

Another new field in the Area of Magnetics has been funded by DST, Gol , past researches in the Areas of Magnetic Bearings have opened up another Area for Exploration of Knowledge, i.e. Applications of Magnetostriction in Energy Harvesting. The research project aims to investigate various behaviors of magnetostrictive energy harvester under mechanical stress or vibration.

To add to the laurels of the Department, the intellectual assets created over the years have been patented, and have been granted this year:

One in the area of instrumentation - In favour of both the Indian Council of Agricultural research (ICAR) and IEST, Shibpur, '*A system for testing dynamically bending behaviour of semi rigid fabrics and a method of such testing.*';

And the second in the area of Power Electronics - '*A Low Cost, Small in size and High Frequency Current sourced Converter for Induction Cooking Application and heat treatment in soft metals.*'

- **List of Awards / laurels / achievements of Faculty member**

- a) Best Paper Award received by Dr. Sumit Kumar Pandey IEEE- IEM Tech Conference Kolkata.

- **Workshops / Conferences / Seminars attended in India and abroad**

- a) International conference entitled 2020 IEEE 47th Photo-Voltaic Specialists Conference (PVSC) organized by IEEE USA from 15/06/2020 to 21/08/2020 by Dr. Konika Das (Bhattacharya).
- b) International conference entitled UEMCOS 2020: 2nd International Conference on Ubiquitous and Emerging concepts on Sensors and Transducers organized by University Of Engineering & management, Kolkata from 16/10/2020 to 18/10/2020 by Dr. Konika Das (Bhattacharya).
- c) International conference entitled 3rd International Conference on Energy Systems, Drives and Automations (ESDA-2020) organized by Applied Computer Technology from 30/12/2020 to 31/12/2020 by Dr. Chandan Kumar Chanda.
- d) International conference entitled ICEPE - 2020 organized by IEEE Industry Applications Society and IEEE Kolkata Section from 05/03/2021 to 07/03/2021 by Dr. Chandan Kumar Chanda.
- e) Electric Vehicle (EV) Components, Technologies, Challenges and Future Development organized by B.V Raju Institute of Technology, Telangana from 12/07/2020 to 12/12/2020 by Dr. Rajesh Panda.
- f) Robotics organized by Adi Shankara Institute of Engineering and Technology from 07/09/2020 to 07/09/2020 by Dr. Debdeep Saha.
- g) Smart Cities organized by KUMARAGURU COLLEGE OF TECHNOLOGY from 19/10/2020 to 23/10/2020 by Dr. Debdeep Saha.
- h) Recent Developments and Entrepreneurship in Sustainable Green Energy Technologies and Smart Grids organized by B V Raju Institute of Technology, Telangana from 23/11/2020 to 28/11/2020 by Dr. Rajesh Panda.

- i) Short-term course entitled Recent Advances in Condition Monitoring of Power Equipment organized by NIT Calicut from 25/01/2021 to 30/01/2021 by Dr. Syed Abdullah Qasim.
- j) Short-term course entitled Challenges, Opportunities, and Emerging Trend in the Field of High Voltage and Electrical Insulation organized by IIT (BHU) from 01/02/2021 to 06/02/2021 by Dr. Syed Abdullah Qasim.
- k) Short-term course entitled QIP Short Term Course on Diagnostics of High Voltage Insulation organized by IIT Kanpur from 01/03/2021 to 06/03/2021 by Dr. Syed Abdullah Qasim.
- l) Michael Faraday IET International Summit: organized by IET from 03/10/2020 to 04/10/2020 by Dr. Konika Das (Bhattacharya).

- **Sponsored Programme Organised**

- a) Short-term course entitled Building, Energy Efficiency and Energy Policy for Sustainable Future sponsored by TEQIP III under Collaborative Research Scheme on 13/06/2020 for 5 days by Dr. Debdeep Saha.
- b) Webinar entitled Algorithm and Architectures for Remote Health Monitoring using wearable sensors sponsored by IEEE Joint CSS-IMS Chapter, Kolkata Section on 22/06/2020 for 1 day by Prof. Anindita Sengupta.
- c) Short-term course entitled Modern Power Plant Technologies: Policies, Industrial Practices and Sustainability sponsored by TEQIP III under Collaborative Research Scheme on 04/07/2020 for 5 days by Dr. Debdeep Saha.
- d) Webinar entitled How to Manage Paper Reviews Effectively sponsored by IEEE Joint CSS-IMS Chapter, Kolkata Section on 30/07/2020 for 1 day by Prof. Anindita Sengupta.
- e) Short-term course entitled Integrating Domain Knowledge for Managing Sustainable Energy sponsored by GHRCE, Nagpur on 12/09/2020 for 6 days by Dr. Mithu Sarkar.
- f) Webinar entitled A New Approach to Automation of CTC Tea Manufacturing Process sponsored by IEEE Industry Applications Society on 24/09/2020 for 1 day by Dr. Suvarun Dalapati.
- g) Webinar entitled Control of Power Electronic Converters for Different Applications sponsored by IEEE Industry Applications Society on 28/09/2020 for 1 day by Dr. Suvarun Dalapati.
- h) Webinar entitled Single-Phase Average Power Measurement Using Instantaneous Power Theory in a Fixed Point Processor sponsored by IEEE Industry Applications Society on 03/12/2020 for 1 day by Dr. Suvarun Dalapati.
- i) International Conference entitled 2021 IEEE Second International Conference on Control, Measurement and Instrumentation sponsored by IEEE Joint CSS-IMS Kolkata Chapter In collaboration with: Department of Applied Physics, University of Calcutta, India and with Technical Co-sponsor: IEEE Instrumentation & Measurement Society on 08/01/2021 for 3 days by Prof. Anindita Sengupta.

## 4.11 Electronics and Telecommunication Engineering

The department of Electronics and Telecommunication Engineering started its journey in July, 1967 after its nucleation from the Department of Physics and Telecommunication from the erstwhile Bengal Engineering College. The batch of Electronics and Telecommunication engineers graduated from this department in 1971. The Master's program was launched in 1972 and the first batch of post graduate passed out in 1974. Currently, PG programmes are offered in the specialization of Microelectronics and VLSI Design, Microwave Communication, and Communication Engineering and Signal Processing.

The department, besides engaging itself in undergraduate and postgraduate teaching has a heritage of conducting research in various fields like MEMS based Biosensors, Graphene and other two dimensional material based gas sensor devices, Microwave Devices, Electromagnetic Metamaterial, Microstrip Antennas, MIMO Radars for Collision Avoidance, VLSI Architecture Design for Real Time Signal and Image Processing Systems, Energy and Spectrally Efficient Wireless communication for Cellular IoT Applications, Artificial Intelligence in Medical Image Processing, Deployable Biosensors System for Pathogen Detection, Photonic Topological Devices based on 2D Photonic Crystal.

Department laboratories are upgraded with several high-end equipment like RF Network Analyzer (100MHz-40 GHz), Vector Signal Generator (9kHz-3GHz), Automatic PCB Prototype Machine for designing microstrip circuit, Photodiode Characterization Unit (200-2000 nm with Czerny-Turner Configuration), EDFA Training System, Laser Spectrum Analyzer, Positioner System for Antenna Measurements, BET Surface Area and Pore Size Analyzer, Dielectric Measurement Kit, Software Defined Radio and many more. Considerable effort has been put forward during the last couple of years towards setting up new laboratories for undergraduate and post graduate students like Microelectronics Lab, Digital Signal and Image Processing Lab, VLSI and CAD Lab, Microwave Research Lab and Anechoic Chamber, Wireless Communication Lab, Optoelectronics Lab.

Honorable Director Prof. Parthasarathi Chakrabarti is associated with the department. The faculty members are actively engaged in their individual as well as numerous collaborative and sponsored research projects of UGC, CSIR, ISRO, DST, AICTE, DRDO, etc., worth a high value. In course of their research faculty members have published large volume of quality publications in different international and national journals and conferences. Faculty members have also earned lot prestigious awards and laurels through their research. Department has produced large number of technologists, scientists and educationalists over more than fifty years who are bearing the flag of the department worldwide.

- **List of Awards / laurels / achievements of Faculty member**
  - a) Dr. Partha Bhattacharyya, Best Paper Award IEEE- IEMTech Conference Kolkata.
  - b) Dr. Ankita Pramanik received IBM Global University Program Academic Award, from IBM, 2020.
  - c) Dr. Chirasree Roy Chaudhuri Selected as member of research council of CSIR-CSIO, Chandigarh, 2021.
  - d) Dr. Chirasree Roy Chaudhuri , Member of Indian National Young Academy of Science, INSA, 2020-2025, Indian National Young Academy of Science, INSA.
- **Workshops / Conferences / Seminars attended in India and abroad**
  - a) International conference entitled MRS Fall 2020 organized by Materials Research Society from 27/11/2020 to 04/12/2020 by Dr. Dipankar Saha.
  - b) International conference entitled IEEE International Symposium on Smart Electronic Systems (iSES) organized by IEEE from 14/12/2020 to 16/12/2020 by Dr. Suman Samui.
  - c) Online Teaching-Learning Tools and Pedagogies organized by FICCI Future from 27/07/2020 to 31/07/2020 by Dr. Manas Rakshit.
  - d) Awareness Workshop NIRF INDIA RANKINGS - 2021 For Higher Educational Institutions organized by Institute for Academic Excellence in collaboration with Collegiate Education & Technical Education Department, Govt. of Telangana from 18/01/2021 to 19/01/2021 by Dr. Ankita Pramanik.
  - e) Short-term course entitled Course Outcomes and Domains of Learning organized by National Institute of Technical Teachers' Training and Research, Bhopal from 14/07/2020 to 14/07/2020 by Dr. Manas Rakshit.
  - f) Short-term course entitled 5-day Online FDP on DEEKSHARAMBH (Student Induction Program) organized by NIT PATNA from 10/08/2020 to 14/08/2020 by Dr. Ankita Pramanik.
  - g) Webinar entitled W4- Assessment of COs, POs and PSOs organized by National Institute of Technical Teachers' Training and Research, Bhopal from 21/07/2020 to 21/07/2020 by Dr. Manas Rakshit.
  - h) Webinar entitled Miles to go: What do we do next? organized by INYAS Kolkata Bhubaneshwar chapter from 17/12/2020 to 17/03/2021 by Dr. Chirasree Roy Chaudhuri.
  - i) Training on NIC-CPP e-procurement organized by NPIU, New Delhi on 02/12/2020 by Dr. Ankita Pramanik.
- **Sponsored Programme Organized**
  - a) Webinar entitled Induction cum orientation program for the 2nd Semester B.Tech students sponsored by E&TCE department on 09/12/2020 for 3 days by Dr. Rik Chattopadhyay.
  - b) Webinar entitled Women in Engineering: Past and Present sponsored by TEQIP-III on 08/03/2021 for 1 day by Dr. Ankita Pramanik.

- **Invited talks and key-note addresses**

- a) P. Chakrabarti, "Advanced Materials and Methods for Fabrication of Thin-film Transistor (TFT)-based Sensors" Keynote address delivered online at the 4<sup>th</sup> International Symposium on Devices, Circuits and Systems (ISDCS) 2021 held at Hiroshima University, during March 4-6, 2021.
- b) P. Chakrabarti, "The Tiny Crystals that Transformed the World" Invited talk delivered at the online FDP on "Recent advances and Challenges in Nanoscale Devices: Design, Materials, and Applications Perspective" held during June 1-5, 2021 at NIT, Hamirpur.
- c) P. Chakrabarti, "Journey from Vacuum Tubes to Carbon Nanotubes," Expert Lecture, One-day National Webinar, on February 27, 2021 at Dr. B. C. Roy Engineering College, Durgapur.
- d) पार्थसारथी चक्रबर्ती "प्रौद्योगिकीयविकास: बदलतीजीवनशैली," नवमहीरकजयंतीव्याख्यान, सीएसआईआर-सीजीसीआरआई, कोलकाता, दिनांक 18 सितम्बर 2020

## 4.12 School of Advanced Materials, Green Energy and Sensor Systems

School of Advanced Materials, Green Energy and Sensor Systems (SAMGESS) has been formally created by the clubbing of erstwhile Centre of Excellence for Green Energy and Sensor Systems (CEGESS) and M N Dastur School of Material Science and Engineering (MNDSMSE) in Jan 2021.

CEGESS was established in November, 2009 with the objectives to promote renewable energy in general and Solar Energy in particular, to conduct cutting-edge research as a frontline R&D incubator through a multidisciplinary approach in the field of renewable energy and sensor systems, and to contribute to the development of highly qualified and innovative personnel through specialized training and knowledge build-up in areas of renewable energy and sensor systems. The Research and education at CEGESS is closely associated with industry and several national and foreign academic institutions of repute with an aim to foster cutting edge research and establish ourselves as a leader in this field. Interests and activities in the centre include solar cell design, fabrication and characterization with a special focus on nano-materials, solar photovoltaic systems design and development, solar energy storage system, smart microgrid, sensor design, fabrication and characterization using novel materials and methods for agricultural, environmental, automobile and healthcare applications (including quantum dot based biosensors) and development of SMART sensor system

MNDSMSE was established in 2001 to address the growing demand amongst the academicians, scientists and practicing engineers. The knowledge of behaviour of materials is a prerequisite for the holistic development of science, engineering and technology with a focus to provide a synergic environment to pursue the interdisciplinary teaching and research. The school has the theoretical and experimental resources to address the scientific and engineering problems. Since last decade the school has been able to make modest footprints in its journey towards development and understanding the characteristics of advanced and emerging materials for efficacious application. From 2003, the School has been offering an M. Tech. Programme in Materials Engineering. Thrust

areas of research for the School are Nano-structured semiconducting materials, Energy and Environment Materials, Smart materials, Composite materials, High strength steels, Materials Modeling and Optimization, and Bio-materials. In addition to research the school provides technical consultancy services to various industries and govt. agencies.

At SAMGESS both the activities described above are being continued with integrated management of existing resources available to both CEGESS and MNDSMSE.

- **Workshops / Conferences / Seminars attended in India and abroad**

- a) Dr. Nillohit Mukherjee attended international seminar entitled 4th International Symposium on Devices, Circuits and Systems, ISDCS 2021 organized by Hiroshima University from 03/03/2021 to 05/03/2021.

## **4.13 Health Care Science and Technology**

This Centre had been established in 2010 with the objectives (a) to provide a platform for interdisciplinary teaching and research in the fields of Health Care Science and Technology leading to a better integrated health care delivery system, (b) to develop highly qualified and innovative professionals in the field of Bio-medical Science and Technology through intensive knowledge and teaching (c) to introduce interdisciplinary master's and doctoral program in Health Care Science and Technology and (d) to collaborate with different medical research institutions and health care institutions.

- **Sponsored Programme Organised**

- a) Webinar entitled International Webinar on Computational Advances for Biomedical Engineering sponsored by TEQIP III on 21/12/2020 for 5 days by Ananya Barui.
- b) Webinar entitled Sustainable Health and Environmental Management during COVID-19 Pandemic sponsored by TEQIP III on 01/03/2021 for 3 days by Ananya Barui.

## **4.14 Humanities and Social Sciences**

The establishment of the Department of Humanities in 1945 reflected a holistic and pragmatic approach to engineering education in the modern era. Renamed as the Department of Humanities and Social Sciences in 2004, the department has always emphasized the need for modernized syllabi in communication skills, knowledge of the society, and economy that are in tune with contemporary developments. Along with Core and Elective courses in Sociology, Management and Finance, the Humanities and Social Sciences department has been offering a core course on Professional Communication in English to the B.Tech. first semester students. Various other English elective courses on Indian Writing in English, Literature and Urban Experience, Popular Literature, Film Studies, Business Communication, Research and Technical Writing for Engineers are also offered both at the undergraduate and the postgraduate levels. It is also imperative that the students of IEST, Shibpur should have adequate managerial skills to cope with the recent changes

in the social and the economic environment of business. It is, therefore, the responsibility of the Humanities and Social Sciences department to fill the lacunae in the aforementioned areas and enable a less jarring transition of our graduates from students to responsible and mature citizens. Additionally, the HSS department also extends its teaching to the postgraduate courses in the MBA programme since 1999. The department, at present, offers Ph. D programs in English and Cultural Studies, and Management Studies. It also offers a compulsory course on Technical Writing to all the Ph.D. scholars of the institute.

The department seeks to offer new courses on Basic & Development Economics, Data Analysis and Corporate Governance in the near future.

- **List of Awards / laurels / achievements of Faculty member**

- a) CMA Rupen Basu Mallik received Fellowship from Indian Academic Researchers Association.

- **Workshops / Conferences / Seminars attended in India and abroad**

- a) International conference entitled Representations of Pandemic in Literature organized by Ataturk University, Turkey from 26/03/2021 to 27/03/2021 by Dr. Madhumita Roy.
  - b) National seminar entitled Impact of Covid 19 on Indian Accounting Economy and Society organized by Dept of Com, CU and Institute of Chartered Accountants of India from 20/08/2020 to 20/08/2020 by CMA Rupen Basu Mallik.
  - c) National workshop entitled IPR & Entrepreneurship Development organized by NIT Silchar from 01/09/2020 to 05/09/2020 by CMA Rupen Basu Mallik.
  - d) Identifying and Dealing with Abuse and Abusive Relationships organized by Eastern Zonal Psychological Association on 27/09/2020 by Ms. Mallika Ghosh Sarbadhikary.
  - e) Webinar entitled Corporate Restructuring organized by Merchant Chamber of commerce & Industries from 16/05/2020 to 16/05/2020 by CMA Rupen Basu Mallik.
  - f) Webinar entitled Arts & The Law organized by Kri Foundation, Visual Art Gallery and India Habitat Centre from 15/12/2020 to 31/07/2021 by Ms. Mallika Ghosh Sarbadhikary.
  - g) National Seminar entitled Covid-19: Deepening Inequalities for the Marginalized Children of India sponsored by Sister Nivedita University on 19/08/2020 for 1 day by Mr. Subhasis Bandyopadhyay.
  - h) International Seminar entitled A Global Panel on the Corona Virus Pandemic sponsored by Centre for Global Studies, Purdue Northwest University, USA on 10/03/2021 for 1 day by Mr. Subhasis Bandyopadhyay.

- **Sponsored Programme Organised**

- a) One day Workshop- 'Mental Health and Well-being of Students' on 07/02/2020 by Dr. Averi Mukhopadhyay.

## 4.15 Human Resource Management

The erstwhile Department of Training and Placement, was renamed as Department of Human Resource Management with extension of activities beyond job placements and training. The department also offers Ph.D programmes in the areas of Entrepreneurship and IPR. The major current activities of the department encompass the following:

- Job Placements of students of the Institute through Campus and Off-campus selection processes.
- Vacational Training / Summer Internship of the students of the Institute including Summer Internship Programme at foreign universities and Remote Internship Programme at reputed industries.
- Facilitating various Grooming up (Personality/Soft-Skill/ Performance Effectiveness) Programmes for the Students
- Organizing / facilitating various Industry Engagement events / activities on behalf of various major industries

During 2020-21 Academic year, due to severe Covid pandemic resulting in lock-down for a considerable duration, entire selection process, both for final recruitment and Internship have successfully been organized on a virtual mode.

## 4.16 Information Technology

The beginning of this century is marked as the start of the Information Age which has not only revolutionized Indian and global industrial markets but has also had an impact on the engineering education system. The erstwhile BESU, Shibpur responded timely by introducing a new specialized engineering degree course in Information Technology under the department of Information Technology in the year 2000. The course is unique with respect to the similar degree program offered by other Indian universities and is framed accordingly to educate graduate engineer to be an expert of microelectronics-based processing, computing and communication of data that global IT sector of coming days demands. The department has celebrated its first 10 years of existence with an impressive record of achievement. The strength of the department has been in its diverse areas of research in which it has excelled. Research focuses of the department are in the fields of Systems Architecture and Design, Theory and Applications of Cellular Automata, Digital Image Watermarking and Signal Processing, Digital Geometry and Image Analysis, Wireless and Mobile Communication, Sensor Network, FPGA based Embedded Systems.

- Workshops / Conferences / Seminars attended in India and abroad
  - a) International conference entitled ICMC 2020 organized by Sikkim University from 07/09/2020 to 10/09/2020 by Dr. Shyamalendu Kandar.

- b) International conference entitled IACC 2020 GOA from 05/12/2020 to 06/12/2020 by Dr. Shyamalendu Kandar.
  - c) International conference entitled IEEE Asian Hardware Oriented Security and Trust (Asian HOST), 2020 organized by IIT Kharagpur from 15/12/2020 to 17/12/2020 by Dr. Ruchira Naskar.
  - d) International conference entitled 16th International Conference on Information Systems and Security (ICISS) 2020 organized by IIT Jammu from 16/12/2020 to 20/12/2020 by Dr. Ruchira Naskar.
  - e) Dr. Shyamalendu Kandar is the Session Chair for Computing Session organized by ICMC 2021, IIESTS from 02/03/2021 to 05/03/2021.
  - f) International workshop entitled Cellular Automata and Secured Hardware Design organized by Department of Information Technology, IIEST, Shibpur from 15/03/2021 to 19/03/2021 by Dr. Sukanta Das.
  - g) Webinar entitled Online Workshop on "Internet of Things: Industry, Academia and Startups" organized by IIT Hyderabad from 21/12/2020 to 23/12/2020 Dr. Ruchira Naskar.
- **Sponsored Programme Organised**
    - a) Webinar entitled Information Security: Approaches in Application to Physical Layer. sponsored by TEQIP on 11/01/2021 for 5 days by Dr. Shyamalendu Kandar.
    - b) Webinar entitled Recent Trends and Applications in Machine Learning sponsored by TEQIP- III, IIESTS on 15/02/2021 for 5 days by Dr. Ruchira Naskar.
    - c) International Conference entitled ICMC 2021 sponsored by on 02/03/2021 for 4 days by Dr. Shyamalendu Kandar.
    - d) International Workshop entitled Cellular Automata and Secured Hardware Design sponsored by SPARC on 15/03/2021 for 5 days by Dr. Sukanta Das.

## 4.17 School of Management Sciences

School of Management Sciences has emerged as an Institution of excellence in all facets of management education with highly specialized, sophisticated and 21st Century oriented courses and curriculum. The goal of SOMS is to achieve professional growth through holistic management education to shape future leaders for the corporate through intermingling of functional knowledge of Marketing, Finance, Operations, Human Resource & IT Management.

The MBA program is designed to deliver the latest business education. The emphasis of the program is on an integrated understanding of the totality of business, its philosophy and socio-economic inter-relationship. The program is specially designed to develop and enhance the basic managerial skills and abilities of students and to equip them with tools & techniques of modern management for better decision-making.

Different teaching methods like case studies, simulation games, group discussions, group seminars, scenario building and project work are used to make the teaching-learning process interesting. Students are encouraged to analyze, innovate and prepare themselves for professional challenges of the industry.

Beside this, doctoral researches are carried out in the areas of Financial Management, Human Resource Management, IT Management, Marketing Management and Operations Management.

- **List of Awards / laurels / achievements of Faculty member**

- a) Certificate of MDP on Supply Chain Strategy from IIM Kozhikode received by Dr. Poulomi Mukherjee Mondal.

- **Workshops / Conferences / Seminars attended in India and abroad**

- a) National workshop entitled the 3 days online workshop entitled Qualitative Data Analysis using NVIVO Software organized by Dhanya Educational and Environmental Development Society (DEEDS) from 18/09/2020 to 20/09/2020 by Dr. Shanujas. V.
- b) Marketing Master Class with Professor Philip Kotler organized by CII (19th Brand Conclave) on 28/11/2020 by Dr. Jnui Deb Mallick Datta.
- c) Short-term course entitled Brand Management: Aligning Business, Brand and Behaviour organized by Online non-credit course authorized by University of London and London Business School on 08/06/2020 by Dr. Jnui Deb Mallick Datta.
- d) Webinar entitled Online One Day Workshop on BBA RM / MBA RM Curriculum organized by Mahatma Gandhi National of Rural Education, Dept. of Higher Education, Ministry of Education, Govt. of India, Hyderabad from 04/12/2020 to 04/12/2020 by Dr. Partha Sarathi Chowdhury.
- e) Webinar entitled Online Alumni Meet of SOMS, IIESTS organized by SOMS, IIESTS from 30/01/2021 to 30/01/2021 by Dr. Partha Sarathi Chowdhury.
- f) Webinar entitled CMA Leadership Webinar 19 organized by Calcutta Management Association from 26/02/2021 to 26/02/2021 by Dr. Poulomi Mukherjee Mondal.
- g) Webinar entitled Online Orientation session on National Education Policy (NEP) 2020 organized by IIESTS from 26/02/2021 to 26/02/2021 by Dr. Partha Sarathi Chowdhury.

- **Sponsored Programme Organised**

- a) Acted as the Convener of Institutions Innovation Council (IIC-2.0) of IIESTS for One Year till September 2020, sponsored by IIC is formed in HEIs by the MHRDs Innovation Cell by Dr. Jnui Deb Mallick Datta.
- b) Organized Covid-19 Challenge Hackathon, as a part of IIC 2.0-IIESTS during April- June 2020 by Dr. Jnui Deb Mallick Datta.
- c) Scintillations 2020, the E-Summit of IIEST-Shibpur by Dr. Jnui Deb Mallick Datta.

- **Achievements / Awards received by the students (Academic, Extracurricular, Co-Curricular)**
  - a) Tanusweta Sarkar, student of 4th Semester MBA at SOMS, IESTS successfully published a research paper on 'Covid-19 Impeding MSME Milestones' in TAPMI Journal of Economics & Finance, Volume- 5. Issue-1.
  - b) Aritra Mukherjee and Sukanya Basu Mallik, students of 2nd Semester MBA at SOMS-IESTS, have reached the final round of the Business Pitch Competition, organised by Symbiosis Centre for Management and Human Resource Development (SCMHRD), Pune.
  - c) Aritra Mukherjee, student of 2nd Semester MBA at SOMS, IESTS won the competition Strategic Ally, organised by Jaipuria Institute of Management (JIM), Lucknow.
  - d) Students and Faculty Members of SOMS attended CMA Leadership Webinar 19CMA Leadership Lecture 19 by Mr. Sanjay Kirloskar, Chairman of Kirloskar Brothers Limited, and President of All India Management Association, organized by Calcutta Management Association on 26th February 2021.

## 4.18 Mathematics

The Department of Mathematics, established at the very inception of the institute, has consistently been one of the most active departments both in terms of delivery of course material and research output. Besides instilling in the undergraduate engineering students of the institute the rudiments of pure and applied mathematics since its commencement in 1856, the department has also been offering the Masters of Science in Applied Mathematics degree since the year 2000. Correspondingly, the department now undertakes the teaching of a wide variety of Pure and Applied courses including Analysis, Algebra, Differential Equation, Discrete Mathematics, Linear Programming, Operations Research, Mathematical Biology, Statistics, Numerical Analysis and Computational Techniques, to undergraduate and postgraduate students in various branches of Science, Engineering and Architecture. The department also has a rich history of conducting impactful research in these and other related fields of Mathematics. Specifically, research work is undertaken throughout the areas of Functional Analysis, Topology, Nonlinear Dynamics and Chaos, Mathematical Biology, Elasticity, Fluid Mechanics, Cosmology, Quantum Information Theory, Mathematical and Statistical Theory of Life Testing and Reliability, Fuzzy Logic, Fuzzy Optimization and Application in Operations Research, Management System.

- **List of Awards / laurels / achievements of Faculty member**
  - a) Dr. Guruprasad Samanta received D.Sc. from SKM University, Dumka.
- **Sponsored Programme Organised**
  - a) International Conference entitled 7th International Conference on Mathematics and Computing ICMC 2021 sponsored by TEQIP-III, IEST Shibpur on 02/03/2021 for 4 days by Dr. Sarita Ojha.

## 4.19 Mechanical Engineering

2021 marks the Centenary Year for the Mechanical Engineering Department of IEST Shibpur. The inception of the department may be traced back to the pre-independence era of the country, with the initiation of a diploma course in Mechanical Engineering in 1921. The first degree level course in Mechanical Engineering started in 1930. Postgraduate courses in the department started in 1954. Over the years, through its high level of teaching and research, the department has earned a name and fame for itself, making significant contributions to this important field of engineering.

The department offers 8-Semester Undergraduate (B.Tech.) and 4-Semester Postgraduate (MTech) courses in Mechanical Engineering, with current annual intakes of 92 and 30, respectively. A 10-semester Dual Degree B.Tech.-M.Tech. program is also in place. Currently, M.Tech. courses are available in three specializations, namely, Machine Design, Thermal Engineering, and Manufacturing Science. The department's students find placement with major players in the industry. Many students also find research opportunities in India and abroad. The department runs a full-time PhD program, where currently about 40 research scholars are engaged, mostly with institute fellowship, in research in frontier areas like vibration and control, composite materials, tribology, energy technology & renewable energy, non-traditional machining, biomechanics, advanced ceramics, combustion science and technology, Alternative fuels, CFD and numerical heat transfer. Many research projects are supported by funding agencies like DST, MHRD, BRNS etc.

The departmental faculty consists of erudite teachers who actively pursue research work of original nature and publish research findings in reputed international journals and also disseminate their experiences through invited talks in national and international conferences and seminars. Many faculty members work in close cooperation with researchers in other Indian as well international institutes and some are also associated with renowned professional societies like Society of Automotive Engineers (SAE), Indian Society of Heating, Refrigerating and Air Conditioning Engineers (ISHRAE), Solar Energy Society of India (SESI), American Society of Mechanical Engineers (ASME, USA), Institution of Mechanical Engineers (IMechE, UK), The Institution of Engineering & Technology (IET, UK) etc.

- **Workshops / Conferences / Seminars attended in India and abroad**
  - a) International conference entitled International Online Conference on Emerging Trends in Healthcare Technology in Post-COVID-19 Era organized by SPARC Cell and SMST, Indian Institute of Technology Kharagpur, from 08/08/2020 to 09/08/2020 by Dr. Bidyut Pal.
  - b) International conference entitled IEMERA 2020, virtual mode organized by The Society for Makers, Artists, Researchers and Technologists, USA from 01/10/2020 to 03/10/2020 by Dr. Bidyut Pal.
  - c) International conference entitled International conference on Research into Design (ICoRD 21) at IIT Bombay organized by IIT Bombay from 07/01/2021 to 09/01/2021 by Prof. Subhas Chandra Mondal.

## 4.20 Mechatronics and Robotics

Keeping parity with the evolving multi-disciplinary technological advancement, a School of Mechatronics and Robotics had been established in the Institute in 2007. In sync with the changed technological scenario, the School introduced a new specialized interdisciplinary postgraduate programme in Mechatronics in collaboration with three CSIR laboratories, namely - CMERI Durgapur, CEERI Pilani and CSIO Chandigarh. The course has been framed to educate graduate engineers to be an expert in mechatronics, an interdisciplinary subject that involves fusion of mechanical, electrical, and electronics engineering. Doctoral programmes in Mechatronics and Robotics are pursued at the School.

The School has been actively pursuing research in the areas of: Dexterous Robotic Hand, Mobile Robots, Micro Systems; Teleportation, Unmanned Aerial Vehicle, Bio-medical and Exoskeleton Devices, Prosthetics; Intelligent Systems; Multisensory Myoelectric Controlled Intelligent Active Ankle-Foot Prosthesis; Sensor Integrated Multi-Fingered Dexterous Robot Hand with Data Glove Interface, etc. Research facilities created in the School include: Bi-handed robot, humanoid robot, drives and control, sensors, image processing set up, mechanical motion transmission devices, data gloves, lasers, smart materials, haptic devices, embedded systems, virtual instrumentation, modeling and simulation.

- **Workshops / Conferences / Seminars attended in India and abroad**

- a) International conference entitled IEEE Conference on Applied Signal Processing (ASPCON 2020) organized by IEEE Signal Processing Society, Kolkata from 07/10/2020 to 09/10/2020 by Dr. Subir Das.

## 4.21 Metallurgy and Materials Engineering

The Department of Metallurgy started its journey at the Bengal Engineering College in the year 1939 with the introduction of a 3-year degree course in Metallurgy under the Calcutta University. The department is the second oldest metallurgy department in the country. A two-year post-graduate degree program in Physical Metallurgy was introduced in the year 1953. It has now evolved into a four-year course. This department was the first to introduce a post-graduate course in metallurgy in the country. Prof. N. N. Sen, who later became the Principal of the B. E. College, was the first Professor and Head of the Department of Metallurgy, Chemistry, and Geology. In 1965, Chemistry became a separate department, and Geology was attached to the Department of Mining. In 1949, Prof. W. Baukhloh of Technische Hochschule, Berlin joined the department as a Professor of Metallurgy. There was a spurt in the research activity in the department with the joining of Dr. A. K. Seal as a faculty in 1949 after the completion of his Ph.D. from Sheffield University. Over the years, the department has produced a good number of eminent metallurgists working in India and abroad. They have made significant contributions to academics, research, and industry. The department takes pride in recalling that Sri P. R. Roy and Dr. C. Ganguli, both alumni of this department, have received the prestigious Padma Shri Award of the Government of India.

The department, in its continued inspiration of young minds towards embracing the true notion of materials engineering, has produced an annually increasing number of B. Tech graduates moving towards academia, placing them among some of the best universities of the world like the University of Michigan, UC San Diego, University of Illinois at Urbana Champaign, University of British Columbia and so on. The B. Tech programme is also a major player in providing the nation's leading metallurgical industries like Tata Steel Ltd., Vedanta Ltd., Aditya Birla Group, etc., with some of the brightest minds, boasting of increasingly robust placement records year after year. The Ph.D. program has, so far, produced a considerable number of doctorates. At present research in several diverse areas, e.g., steel, nonferrous alloys, composites, Nanoscience and Nanotechnology, are being actively pursued. The department has already pioneered the development of certain vital steels and alloys like HSLA steels, maraging steels, and shape memory alloys, to name a few. These developments have had a tremendous impact on the overall development of the subject in the national scenario. Special efforts have been directed towards the evolution of suitable means for effective technology transfer to the existing industries. The department feels proud to announce its collaborative ventures with organizations, such as, TISCO, SAIL, ISRO, BARC, NML, ICDC, and NMRL.

The faculty members of the department have developed excellent expertise in the areas of Physical Metallurgy, High Strength Steels, Tribology, Mechanical Behaviour of Materials, Nano-Technology, Powder Metallurgy, Multifunctional composites, Computational Materials Engineering, Diffusion Bonding and Friction of Stir Welding. Fresh perspectives riding on the advancements in materials engineering and technology have prompted the launch of specializations like manufacturing technology and materials engineering in the M. Tech. curricula as well. These will help breathe in a novel outlook in the form of subjects like additive manufacturing, multifunctional materials, biomedical devices, etc., welcoming the Government's initiatives of focusing more on smart and advanced materials.

The department is thus continuing to be a major influence on the developmental scope of metallurgy and materials engineering in India, eschewing notions of stagnancy and bolstering the nation's efforts in achieving self-sustenance in every walk of science and technology.

- **List of Awards / laurels / achievements of Faculty member**
  - a) Dr. Manojit Ghosh received Mitacs Globalink Research Award from Mitacs.
- **Workshops / Conferences / Seminars attended in India and abroad**
  - a) Short-term course entitled Atomistic Modelling of Solids: Theory & Applications organized by IIT Indore from 21/12/2020 to 25/12/2020 by A Bhattacharya.
  - b) Webinar entitled Webiner on Steels; Various aspects: Invited lecture delivered on "New Generation Advanced High Strength Steels (AHSS) for Automotive Application" organized by Department of Fuels, Minerals and Metallurgy , IIT (ISM) Dhanbad from 17/02/2021 to 18/02/2021 by Dr. Arunansu Haldar.

- **Sponsored Programme Organised**

- a) Dr. Gautam Anand organized Webinar entitled Exploiting Machine Learning for Multiscale Modelling of Materials sponsored by DST-UKIERI on 20/07/2020 for 1 days.
- b) International Conference entitled Reminiscence: The metallurgical Journey of 80 years sponsored by Indian Institute of Metals, BESU Chapter on 20/07/2020 for 6 days by Dr. Manojit Ghosh.

## **4.22 Mining Engineering**

In India, tertiary level education and training in mining engineering started at this Institute, way back in 1906. The Department was winded up in 1929 and re-established in 1956. The department is dedicated towards in depth education, research and consultancy in mining engineering and its allied fields. The Department offers undergraduate and post graduate programme in Mining Engineering and post graduate programme in Geo-informatics. The Department of Mining Engineering is an approved QIP centre for postgraduate study in Mining Engineering. Research specializations available in the department include Mining Machinery, Carbon sequestration, Coal bed methane, GIS and Remote sensing, Mine Environment, Environmental Management, Mine Planning and Design, Mineral Dressing, Ergonomics, Occupational Health and safety and Rock Mechanics and Strata Control. During 20-21, total 04 (four) nos. of PhD was awarded. Total 30 (thirty) consultancy projects with sanctioned amount of Rs. 631.43 Lakhs and 01(one) R&D Project with sanctioned amount of Rs. 32.71 Lakhs was sanctioned in 20-21.

- **List of Awards / laurels / achievements of Faculty member**

- a) Prof. Sudipta Mukhopadhyay achieved the status of the Referee Analysis laboratory from CSIR- CIMFR, Coal India, Ministry of Coal, Quality Council of India.
- b) Dr. Ismail Mondal received Research Excellent Award from Institute of Investigation in Remote Sensing and GIS.
- c) Dr. Ismail Mondal received Young Scientist award from India International Science Festival, Young Scientist Conference, 2020, DST, Govt. of India, New Delhi.

- **Workshops / Conferences / Seminars attended in India and abroad**

- a) National workshop entitled Faculty Development Programme: Training on Disaster Management organized by National Institute of Disaster Management (Ministry of Home Affairs, Govt. of India) New Delhi from 21/09/2020 to 25/09/2020 by Dr. Ismail Mondal.
- b) Short-term course entitled Online Certificate Course on Application of PYTHON in GIS organized by International Institute of Geospatial Science & Technology (IIGST) from 10/03/2021 to 12/06/2021 by Dr. Ismail Mondal.
- c) Webinar entitled GIS Day 2020 Webinar organized by Indian Society of Remote Sensing, Kolkata Chapter, and CAD Centre, Jadavpur University on 17/11/2020 by Dr. Aditi Sarkar.
- d) 12<sup>th</sup> National Conferences on Safety in Mines, 2020 organised by Ministry of Labour and Employment, Govt. of India attended S. Mukhopadhyay and N C Dey, Delhi.

- **Sponsored Programme Organised**

- a) Webinar entitled Honorable Lecture on How to Write a Good Scientific Paper and Submit to a Journal sponsored by Space and Environmental Research Center (SERC), University of Rajshahi, Bangladesh on 30/08/2020 for 1 day by Dr. Ismail Mondal.
- b) Webinar entitled Concept on safety and sustainability in Indian Mining Industries sponsored by IEI on 06/12/2020 for 1 day by Dr. Netai Chandra Dey.
- c) International Conference entitled Estimation of Chlorophyll-A, TSM and CDOM in Hooghly Estuaries using Sentinel-3 Remote Sensing data sponsored by Young Scientist Conference, 2020, DST, Govt. of India, New Delhi on 24/12/2020 for 3 days by Dr. Ismail Mondal.
- d) National Workshop Artificial Intelligence Based Smart Agriculture for Sustainable Development sponsored by Centre for Artificial Intelligence and Machine Learning, (CAIML) Indian Statistical Institute, Kolkata 27/02/2021 for 3 days by Dr. Aditi Sarkar.

- **Achievements / Awards received by the students (Academic, Extracurricular, Co-Curricular):**

- a) Ph.D. Awarded- Partha Mukhopadhyay (Supervisor Prof. N.C Dey)
- b) Ph.D. Awarded- Shibaji Ch. Dey (Supervisor Prof. N.C Dey)
- c) Ph.D Awarded- Ashis Das (Supervisor Prof. S Sinha)
- d) Ph.D Awarded- Dipankar Shome (Supervisor Prof. S Sinha)

## **4.23 Physics**

The department of Physics has a century old past and has come through the era of revolutionary thoughts in the world of physics to the present century of technological revolution. The year 2000 can be considered as a landmark for this department when the M.Sc. course in Applied Physics was introduced. In the last five years the faculty members of the department have contributed more than 100 research papers in international journals of repute and many international conference proceedings. Nearly thirty PhD students are working in this department. Many of our old students are engaged in research and some of them are also in scientific jobs in various premier research institutions of India, such as SINP, IACS, TIFR, BARC, IPR, CGCRI etc. as well as in different well recognized universities and institutes in abroad. The department is endowed with a number of research projects sponsored by various funding agencies. Physics department has also been awarded with phase-I of DST-FIST. At present the departmental faculty members and their research groups are actively working in the following identified broad thrust areas of research like Condensed matter physics theory and applications in magnetic, electronic optoelectronic and photonic materials and devices and Nuclear physics: Experiment and Theory, Cosmology and Theoretical High Energy Physics.

- **Sponsored Programme Organised**

- a) International Webinar on Advances in Electronic, Optoelectronic, Photonic Materials and Devices sponsored by IEST Shibpur 17/03/2021 for 3 days by Prof. Mousumi Basu.

## **4.24 Safety and Occupational Health Engineering**

Safety and Occupation Health (SOH) has gained importance due to the dramatic change that has taken place in the work environment where the workforce is exposed to diverse occupational pursuits and hazards. Considering the need of the day as well as the societal responsibility the University has started this school in the year 2007. The current activities of the school include a part time M Tech. programme in Safety and Occupational Health Engineering as well as interdisciplinary research.

This school aims at developing a competent human resource capable of implementing the safety policy for organized and un-organized sectors; create and strengthen infrastructure for SOH engineering; establish a synergy between the stake holders and carry out research in upcoming fields.

The research activities of this school have a diverse hue that include Study of Ergonomics and Physiology in industries; Industrial Health & Hygiene in organized and unorganized sector; Hazard Identification Technique in key industries and Safety Audit and Management.

## **4.25 VLSI Technology**

Founded as a part of the Special Manpower Development Project of the Ministry of Information Technology, the School started functioning in 2006 with a flagship M.Tech Course in VLSI Design. The School aims to integrate the efforts of scientists and engineers working in different fields of Microelectronics and Semiconductor devices, towards design and production of VLSI. Major equipment and instruments procured for the school are Linux Servers, Sun Solaris Servers, Work stations etc.

## **4.26 Water and Environment Research**

Stressing the needs of advanced research and knowledge dissemination, the University has established the Centre for Advanced Research on Water that will provide a common platform with state-of-the-art infrastructure for more focused and holistic interdisciplinary and collaborative research on water. Objective of this is to (i) serve as the central focus for water resources research at the University, (ii) work in collaboration with national and international research organizations to solve complex water resources problems at the national and international level, (iii) communicate the results of its advanced research to government, industry, and other educational institutions, (iv) act as a regional centre for water-related research, education, planning, and implementation and (v) innovate and implement technology solutions for the people.

Activities of the centre will include (i) Post Graduate and Doctoral Research on Complex Water Related Field Problems, (ii) Developing Innovative Technology Solutions, (iii) Providing State-of-the-art Testing Facilities, (iv) Providing Training for the Government Officials, (v) Providing Expertise for Industrial Projects on Water, (vi) Providing Training for the Community People, (vii) Organizing Awareness Programmes, (viii) Collaborating with National and International Organizations for Technology transfer, (ix) formulating National Level Water Resources Management and Action Plans, (x) Publishing a Technology Journal for the Centre and (xi) Developing an exhaustive digital archive of raw and processed information on Water Resources of India.



## Picture Gallery







Department of Aerospace Engineering and Applied



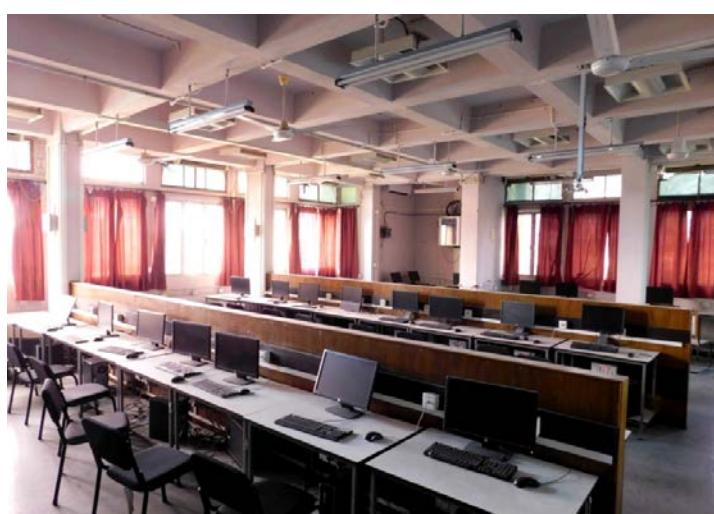
Department of Architecture, Town and Regional Planning



Department of Chemistry



**Department of Civil Engineering**



**Department of Computer Science and Technology**



**Department of Earth Science**



**Department of Electrical Engineering**



**Department of Electronics and Telecommunication**



**Department of Human Resource Management**



**Department of Humanities and Social Sciences**



**Department of Information Technology**



**Department of Mathematics**



Department of Mechanical Engineering



Department of Metallurgy and Materials Engineering



Department of Mining Engineering



**Department of Physics**



**School of Advanced Materials, Green Energy and Sensor**



**School of Community Science and Technology**



School of Mechatronics and Robotics



School of VLSI Technology



Centre of Healthcare Science and Technology



## **05** Sponsored Research and Industrial Consultancy



## Sponsored Research and Industrial Consultancy Activities

The Research and Consultancy Cell has, of late, matured into the singular channel for diverse externally funded research and industrial consultancy at the Institute. As of now its principal role is to act as a facilitator for R&D activities at the Institute. But, in consonance with the 'Make in India' thrust of the Government and in tune with the technology roadmap of the country, the Cell is now gearing up to play a greater role to act as the hinge point for multi and interdisciplinary mega research for which the Institute is now well poised.

A tradition of uncompromising quality-concern has put the Institute in good treads and, over the last few years, a good number of government and non-government funding agencies like MNRE, MoE (MHRD), CSIR, DST, DeitY, DAE, DBT, BRNS, DRDO, ISRO, UNICEF, AICTE, UGC, Tata Steel, IBM etc have come forward to sponsor Research Projects. Presently the Institute is putting a purposeful thrust on collaborative research both at national and international level.

In order to enhance the level of intellectual productivity and efficacy, the Institute has established a "Research and Consultancy Cell (RACC)" of which the principal objective is to facilitate, on behalf of the institute, coordination in administration, managerial, liaison, monitoring etc. of sponsored research and consultancy work within the ambit of the administrative framework of the Institute. This allows research workers to devote more time to fruitful research without bothering much on not-too-technical but no-less-important other aspects of the project administration and implementation.

The Institute enjoys a reputation for excellence in research and development. Casting a glance at its academic departments, the Institute can boast of commendable performance of its faculty members, particularly their quality research output which is reflected by a good number of publications in peer-reviewed national and international Journals. A significant number of research projects funded by MHRD, MNRE, MeitY, DST, DBT, Digital India Corporation, DST-FIST, Indian Council of Medical Research, UNICEF, Ministry of Earth Science, CSIR, ISRO, DRDO, Ministry of Steel, Ministry of Defense, DAE-BRNS, TATA Steel, Electrosteel Casting Limited (ECL) and international funding agencies like CIDA, USAID, DelPHE, SANEI, UKRI-RCUK etc. bear testimony to the quality of research programmes carried out at the Institute. In the recent past, the Institute shared its research accomplishments with IISc (ACRC) Bangalore, IBM, TATA Steel, SAIL, Infosys, DRDL, CPRI, TCS etc.

The number of sponsored projects and the funding have increased steadily, substantially so during the last five years. Besides the conventional fields, the Institute in recent years has brought many frontier areas of S&T under the purview of its sponsored research activities. Some of such areas include Advanced Materials, Green Energy and Sensors, Synthesis of new compounds and catalysis, Computational Chemistry, Robotics, Bio-Mechanics, Power Electronics, VLSI and Embedded Systems, Mechatronics, Earthquake Dynamics, Disaster Management, Environmental Remediation, Healthcare Science and Technology, Computational Biology, Mobile Computing, Nano Science and Technology, Remote-sensing and GIS, Space Technology, Structural Engineering, Communication,

Sensor Network, Water Resource and Environment, Transportation Planning, Fluid Mechanics, Carbon Sequestration, Atomic and Nuclear Physics, Soft Computing, Image processing, Mine Safety, Housing and Human Settlement Planning, Electrochemistry, Sedimentology, Environmental Economics, Mathematical and Statistical Theory of Life Testing and Reliability, Rural Technology etc.

Casting a glance at its academic departments, the Institute can boast of commendable performance of its faculty members and research scholars, particularly their quality research output which is reflected by a good number of publications in peer-reviewed national and international journals. Institute shares its research accomplishments with other institutes, research organizations and industry.

Major augmentation in infrastructure for facilitating academic, research and administrative activities in the Institute has been undertaken. A total no. of about 310 research projects worth more than ₹ 145 Cr. and about 620 consultancy projects amounting to about ₹ 66 Cr. has been sanctioned to the Institute during the period of 2011 –2021. The research account statement of the institute for the last two financial years is summarized in Table 5.1 and Table 5.2, depicting the estimates in terms of funds received and estimates in terms of actual number of R&D consultancy projects executed and total available funds respectively. The list of new externally funded projects initiated in 2020-21 is summarized in Table 5.3.

## 5.1 Research Account statement for the last two financial years

**Table 5.1: Estimates in terms of funds received.**

Financial Year	Amount Received from different funding agencies (₹)	Fund (in ₹) Transferred to Institute Overhead From
2020-21	<b>R&amp;D Project</b> 5,45,02,159 For 43 projects	<b>R&amp;D Project</b> 32,77,013
	<b>Consultancy</b> 7,42,43,486 For 99 consultancy works	<b>Consultancy</b> 1,54,66,230
	<b>Testing Fees</b> NIL	
2019-20	<b>R&amp;D Project</b> 11,52,76,043 For 82 projects	<b>R&amp;D Project</b> 53,36,046
	<b>Consultancy</b> 3,09,25,269 For 87 consultancy works	<b>Consultancy</b> 67,20,151
	<b>Testing Fees</b> 1,93,049	

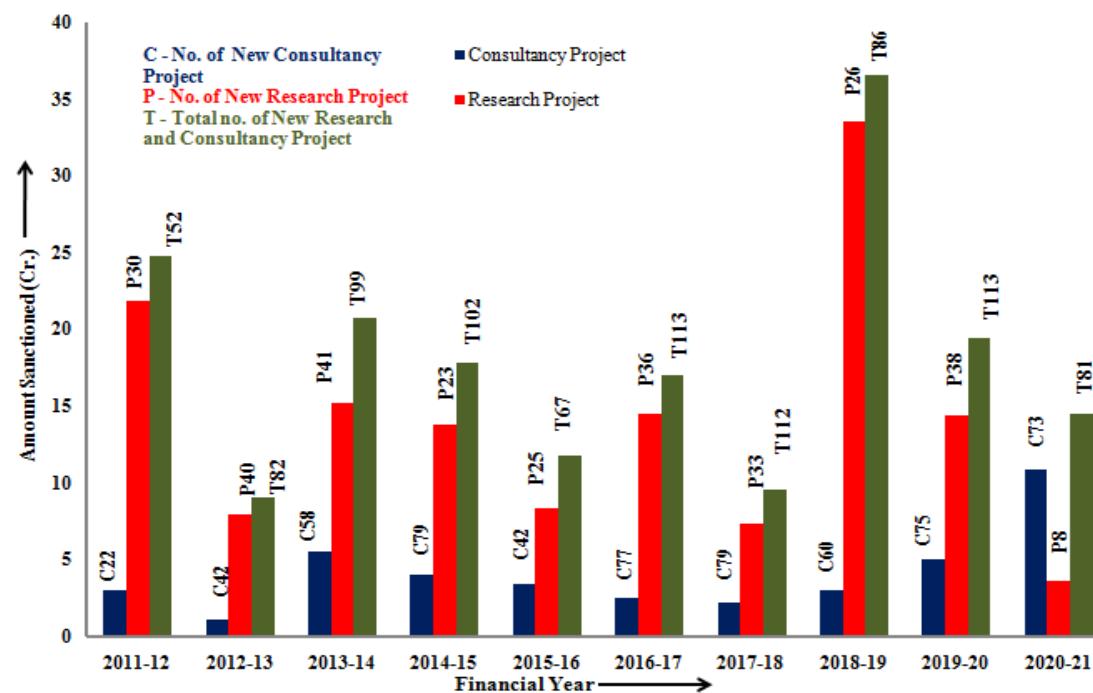
**Table 5.2: Estimates in terms of actual number of projects (R&D and Consultancy) executed and total available funds.**

Financial Year	Total number of R&D and Consultancy Projects executed	Total Fund available for execution of the research and consultancy work (₹) [Unutilized fund – Financial Statement (Audit Report) for the Year 2020-21]
2020-21	319	33,43,88,651
2019-20	294	31,60,64,792

**Table 5.3: New Externally Funded Projects initiated in 2020-21.**

Dept.	Funding Agency	Amount Sanctioned (₹ in lakh)
Aerospace Engineering & Applied Mechanics Engineering	DRDO	49.74600
Mining Engineering	SERB-DST	32.71181
Chemistry	SERB-DST	29.79990
Chemistry	SERB-DST	24.75000
Electrical Engineering	MEITY	49.24000
Electrical Engineering	MEITY	116.98000
Electrical Engineering	MEITY	42.09000
Electronics & Telecommunication Engineering	2020 IBM Global University Program Academic Award	19.74627

**No. of new sponsored research and consultancy projects sanctioned during the FY 2011-12 to FY 2020-21.**



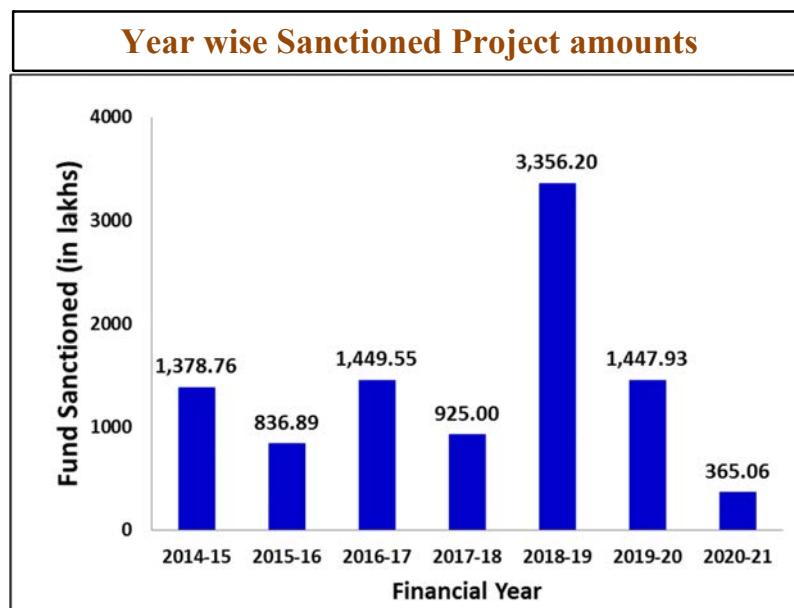
## 5.2 Highlights of ongoing sponsored research activities

- ❖ Ministry of Electronics and Information Technology (MeitY), GoI has sanctioned 3 projects to Electrical Engineering Department under NaMPET-III scheme.
- ❖ The DST-IIEST Solar PV Hub centre was formally inaugurated by Shri Ramesh Pokhriyal "Nishank", Hon'ble Education Minister, Government of India on 27<sup>th</sup> October, 2020.
- ❖ 2020 IBM Global University Program Academic Award has been received by the Electronics and Telecommunication Engineering Department.
- ❖ Ministry of Education sponsored seven SPARC Projects are ongoing in the present tenure to facilitate global research network, improve research eco-system and academic standard. In connection with the SPARC projects, experts from Hiroshima University, Duke University, University of Illinois, Urbana Champagne and Purdue University have visited this institute for academic and collaborative research activities.
- ❖ MoE and DST, GoI (through Technology development initiative) supported impacting research innovation and technology (IMPRINT-2) project involving Tata Steel as the participating collaborating industry, are currently undergoing in the Metallurgy and Materials Engineering Department.
- ❖ Tata Steel has sanctioned 02 projects in the area of development of advanced high strength steel to the Metallurgy and Materials Engineering Department, which are ongoing in the current tenure.
- ❖ The Ministry of AYUSH, Govt. of India through the Central Council of Research in Homeopathy (CCRH) has sanctioned the establishment of Dr. Bholanath Chakroborty Fundamental Research Laboratory on Homeopathy. The laboratory will be equipped with several high-end equipments and will act as a coordinating centre for scientific researchers working in evaluation of medicines belonging to this AYUSH system.
- ❖ A collaborative research hub is being executed by a research consortium led by New Castle University, UK with financial support from Research Council UK (RCUK) under the Global Challenges Research Fund to address the challenges of delta regions of Ganges-Brahmaputra-Meghna.
- ❖ School of Advanced Materials, Green Energy and Sensor Systems (SAMGESS, formerly, Centre for Excellence for Green Energy and Sensors System, CEGESS) has been recognized by Ministry of New Renewable Energy (MNRE) and also by DST Solar Hub with an objective to perform research and development on large scale silicon solar photovoltaic cells, modules and systems including design, fabrication and characterization using novel materials and methods for which financial support has been sanctioned by DST (GoI) in the FY 2018-19. Several instrumental facilities have already been installed in the School.

### 5.3 Major consultancy projects

Important funding agencies like Coal India Limited, Western Coalfields Limited, Eastern Coalfields Limited, Kolkata Municipal Corporation, West Bengal Medical Services Corporation Limited, P.W.DTE, Govt. of West Bengal, Haldia Development Authority, IIT Kharagpur, Larsen & Toubro Limited, ITD Cementation India Ltd., Kolkata Port Trust, Rail Vikas Nigam Limited, Kolkata Metro Rail Corporation Limited, Hooghly River Bridge Commissioners, Second Vivekananda Bridge, VisvaBharati University, Mackintosh Burn Limited, Kolkata Metropolitan Development Authority, Gorkhaland Territorial Administration, Bridge and Roof Co. (India) Ltd., Singareni Collieries Company Limited (SCCL), Hindalco Industries Ltd., PDCL etc are providing significant consultancy activities.

In 2020-21, total 73 new consultancy works were sanctioned with an amount of ₹ 10.84 Cr. from different agencies. The following tables (Table 5.4 and Table 5.5) and diagrams describe the details of new externally funded projects started during the year, ongoing projects, completed projects, particulars of new consultancy work sanctioned and carried out during year 2020-21.



**Table 5.4: List of New Consultancy Projects sanctioned in 2020-21**

Financial Year	Department	Funding Agency	Amount Sanctioned (₹ in lakh)
2020-21	Aerospace Engineering and Applied Mechanics	Conveyor & Ropeway Services Pvt. Ltd.	0.70800
2017-18	Architecture, Town and Regional Planning	Urban Development and Municipal Affairs Department	85.55000
2020-21	Civil	ITD Cementation India Limited	1.77000
2020-21	Civil	Develecto Mining Limited	2.31280

<b>Financial Year</b>	<b>Department</b>	<b>Funding Agency</b>	<b>Amount Sanctioned ₹ in lakh)</b>
2020-21	Civil	Develecto Mining Limited	29.50000
2019-20	Civil	West Bengal Medical Services Corporation Ltd.	9.51670
2018-19	Civil	Kolkata Port Trust	12.43673
2020-21	Civil	Howrah Improvement Trust	3.36300
2020-21	Civil	Central Pollution Control Board	8.80000
2020-21	Civil	Meridian Medical Research and Hospital Ltd.	6.49000
2019-20	Civil	West Bengal Medical Services Corporation Ltd.	149.12890
2020-21	Civil	Babtech	2.36000
2018-19	Civil	Mackintosh Burn Ltd.	3.54000
2020-21	Civil	IndrayudhAbasanSamabayaSamity Ltd.	1.18000
2020-21	Civil	Larsen and Toubro Limited	1.27617
2019-20	Civil	PWD Tamluk Division	7.83000
2020-21	Civil	Progressive Construction Co.	1.18000
2018-19	Civil	VisvaBharati University	2.24200
2020-21	Civil	Prasun Enterprise	0.59000
2019-20	Civil	Traders and Engineers Private Ltd.	1.74000
2020-21	Civil	Merlin Projects Ltd.	2.36000
2019-20	Civil	ABCI Infrastructures Pvt. Ltd.	8.26000
2018-19	Civil	P.W. (Roads) Directorate	2.36000
2019-20	Civil	ABCI Infrastructures Pvt. Ltd.	8.26000
2020-21	Civil	Mohan Lal Jain	7.96500
2019-20	Civil	West Bengal Housing Infrastructure Development Corporation Ltd.	5.31000
2020-21	Civil	The Shalimar Works (1980) Ltd.	21.24000
2020-21	Civil	Modern Construction Co.	1.18000
2020-21	Civil	S. Ghosh & Associates Pvt. Ltd.	2.95000
2018-19	Civil	Haldia Development Authority	3.71846
2019-20	Civil	PWD	1.59300
2020-21	Civil	MEGA STRUCT	1.88800
2020-21	Civil	West Bengal Housing Infrastructure Development Corporation Ltd.	15.34000
2019-20	Civil	Bridge & Roof Co. (India) Ltd.	10.62000
2019-20	Civil	Geotechnical Engineering Consortium	12.98000
2019-20	Civil	Mackintosh Burn Ltd.	1.41600
2019-20	Civil	Prasun Enterprise	2.36000

<b>Financial Year</b>	<b>Department</b>	<b>Funding Agency</b>	<b>Amount Sanctioned ₹ in lakh)</b>
2019-20	Civil	Ramjibanpur Municipality	0.70800
2020-21	Civil	Dasgupta Construction	2.36000
2020-21	Civil	Dasgupta Construction	2.95000
2020-21	Civil	Akriti Architectural Consultants	1.18000
2019-20	Earth Science	C.E. Testing Company Pvt. Ltd.	2.83115
2019-20	Earth Science	C.E. Testing Company Pvt. Ltd.	1.88743
2020-21	Mining	West Bengal Mineral Development & Trading Corporation Ltd.	0.53100
2020-21	Mining	Western Coalfields Ltd. and 10 other companies	28.43800
2020-21	Mining	Eastern Coalfields Ltd.	6.28704
2019-20	Mining	Eastern Coalfields Ltd.	9.89430
2020-21	Mining	Northern Coalfields Limited and 10 other companies	17.71416
2020-21	Mining	Bharat Coking Coal Ltd. & 4 other companies	27.41140
2020-21	Mining	Singareni Collieries Company Limited	5.90000
2020-21	Mining	Mahanadi Coalfields Ltd. and 15 other companies	13.44020
2019-20	Mining	Bharat Coking Coal Ltd.	135.98320
2020-21	Mining	Bharat Coking Coal Ltd. and 2 other companies	22.81884
2020-21	Mining	Eastern Coalfields Ltd. and 8 other companies	26.25500
2020-21	Mining	Northern Coalfields Limited and 16 other companies	26.90400
2020-21	Mining	Bharat Coking Coal Ltd. and 3 other companies	17.27284
2020-21	Mining	Eastern Coalfields Ltd. and 9 other companies	18.82100
2020-21	Mining	Central Coalfields Ltd. and 6 other companies	22.21940
2019-20	Mining	South Eastern Coalfields Ltd. and 31 other companies	30.61510
2018-19	Mining	Hindalco Industries Ltd.	5.07400
2019-20	Mining	Hindalco Industries Ltd.	7.67000
2019-20	Mining	Eastern Coalfields Ltd. and 4 other companies	44.78100
2020-21	Mining	Mahanadi Coalfields Ltd. and 11 other companies	8.66592

Financial Year	Department	Funding Agency	Amount Sanctioned (₹ in lakh)
2019-20	Mining	The West Bengal Power Development Corporation Ltd.	0.43470
2020-21	Mining	Eastern Coalfields Limited	2.83200
2019-20	Mining	Eastern Coalfields Limited and 3 others companies	56.69900
2020-21	Mining	Central Coalfields Ltd. and 9 others companies	34.34508
2019-20	Mining	Central Coalfields Ltd. and 3 others companies	10.06894
2019-20	Mining	MCL(TALCHER) and 7 other companies	7.37972
2019-20	Mining	MCL(IBVALLEY) and 7 other companies	6.19146
2019-20	Mining	Central Coalfields Ltd.	11.25720
2019-20	Mining	Central Coalfields Ltd.	8.74970
2019-20	Mining	Northern Coalfields Limited	16.77724

**Table 5.5: Completed Consultancy Projects in 2020-21**

Department	Name of the Principal Investigator	Funding Agency
MNDSMSE	Subrata Chatterjee	MoT
MNDSMSE	Prosenjit Saha	DST
CHEM	Chinmoy Bhattacharya	WB-DST
SM&R	SubhasisBhaumik	IEI
SOCSAT	ManishaMaity	ICMR
IT	Indrajit Banerjee	DST
MET & MAT	Manojit Ghosh	DST
MET & MAT	Swarup Kumar Ghosh	ECL
AE & AM	KoustuvDebnath	SERB
CHST	PallabDatta	ICMR
ETC	PallabiParamanik	SERB-NPDF
CEGESS	Hiranmay Saha	ADPL
CEGESS	Hiranmay Saha	HITK
CEGESS	Hiranmay Saha	OZTRON
CEGESS	SanhitaMajumdar	DST-WOS
CIVIL	Anirban Gupta	UNICEF
IIPC	DebjaniGanguly	CESC
IIPC	DebjaniGanguly	CESC
CHEM	Mrinal K Bera	CSIR
ELECTRICAL	Debabrata Roy	CESC
PHYS	Sampad Mukherjee	DBT

Department	Name of the Principal Investigator	Funding Agency
PHYS	Mousumi Basu	SERB
PHYS	Samar Jana	SERB
PHYS	Manish Pal Chowdhury	DST
ETC	Susanta Kumar Parui	CSIR
VLSI	Lopamudra Banerjee	DST
CIVIL	Pritam Saha	CESC
SOCSAT	Partha Sarathi Roy	BPCL
ETC	Susanta Kumar Parui	DST
AE&AM	Amitabha Ghosh	NASI
CHEM	Jayati Datta	MNRE
AE AND AM	Amit Roychowdhury	DBT
PHYS	Chirasree Lahiri	SERB
CEGESS	Nillohit Mukherjee	DST
CHEM	Ajit Kumar Mahapatra	SERB
CEGESS	Hiranmay Saha	MNRE
CEGESS	Partha Chaudhuri	DST
CEGESS	Snehangshu Patra	SERB
SOCSAT	Head of the Department	GRSE

## 5.4 Inauguration of the DST-IEST Solar PV Hub

Inauguration of the DST-IEST Solar PV Hub by Shri Ramesh Pokhriyal "Nishank", Hon'ble Education Minister, Government of India on 27<sup>th</sup> October, 2020.



- ❖ The main objective of creating this DST-IIEST Solar PV Hub is to develop suitable technology in the area of solar photovoltaic energy sector to fulfill the goal of "Make in India Mission."
- ❖ DST-IIEST Solar PV Hub is a joint initiative by Department of Science & Technology (DST), Government of India and Centre of Excellence for Green Energy and Sensor Systems (CEGESS), Indian Institute of Engineering Science and Technology (IIEST), Shibpur to establish a state-of-the-art Solar Photovoltaic Hub in the campus. The photovoltaic technology has emerged as most promising and sustainable technology to meet ever increasing energy demand of modern civilization and thus world-wide research activities are going on for development of this technology. The need to integrate the efforts of scientists and engineers working with different aspects of photovoltaic technology has been the primary motivation for creation of DST-IIEST Solar PV Hub. This hub is the first of its kind in the country to promote research and manpower development in an integrated fashion.
- ❖ The DST-IIEST Solar PV Hub aims at establishing a state-of-the-art facility of fabrication and characterization of Industry compatible solar cell and solar photovoltaic system, initiating cutting edge research in the different fields of solar energy and providing quality post graduate and doctoral education in Renewable Energy Science and Technology. The research and education at CEGESS is closely associated with industry and several national and international academic institutions of repute with an aim to foster cutting edge research and establish India as a leader in this field. Interests and activities in the center include Industry compatible solar cell design, fabrication and characterization with a special focus on nano materials, solar photovoltaic systems design and development, solar energy storage system and smart microgrid design.
- ❖ This will help the academicians and researchers of India as well as Indian Solar Manufacturing Industries..

## 5.5 Recent Activities

### 5.5.1 Academic and research collaboration (signing of MoU / MoA / NDA / Research Agreement)

Over the last few years, in tune with the Institute policy of strengthening national and international collaboration, the Institute has signed quite a number of MOUs with various academic/ research/ government organisations and Industry houses. In 2020-21, the Institute signed MoUs with different Government and Private agencies on research and academic joint activities.



**As an outcome, the Department of Electronics & Telecommunication Engineering has been conferred with 2020 IBM Global University Program Academic Award.**

In 2020-21 the institute signed (i) 3 MoAs with Centre for Development of Advanced Computing (C-DAC), Thiruvananthapuram for research projects under NaMPET-III, MeitY, (ii) NDA with National Aerospace Laboratories (CSIR-NAL), (iii) Research Agreement with Tata Steel for implementation of SERB-DST sponsored (IMPRINT-2) project in the area of development of high strength steels, (iv) User Agreement with Oak Ridge National Laboratory (ORNL), USA, (v) Agreement with Cairn Oil and Gas (Vedanta Limited). Moreover, Research and Academic Agreements with NDA with Global Foundries Singapore Pte. Ltd. for free of cost access of EDA, IP and /or Chip Design Services, software, libraries, IP-Core, BHEL, Coal India Limited (CIL) for implementation of specific research projects are in active process for signing.

#### **5.5.2 Continuing Education Program (CEP)**

Retaining the tradition of the previous years, a number of workshops, seminars, symposia, and similar events have been organised under the CEP Cell for the overall benefit and academic refreshment of the students and faculty members. Several short-term courses have also been organised for professionals from industry and R & D establishments on a requirement basis and were suitably tailor-made so as to accommodate and cater the needs associated with the industries. A total of 17 programmes have been conducted successfully during FY 2020-21 through the CEP Cell.

#### **5.5.3 Online Program organized by the CEP Cell, IIESTS**

##### **International / National Webinar organized (in the FY 2020 - 2021)**

One-week Online Workshop on "Cellular Automata and Secured Hardware Design", was organized during March 2021 under SPARC Program. Details of online programme conducted by various departments are summarized in Table 5.6.

**Table 5.6: Details of online programme conducted in 2020-21**

<b>Online Programme</b>	<b>Department</b>	<b>Title of the Project</b>	<b>Date of Implementation</b>
Conference	Information Technology	7th International Conference on Mathematics & Computing (ICMC 2021)	02-05 Mar 2021
Webinar	Computer Science and Technology & Centre for Healthcare Science &Tech.	Computational Advances for Biomedical Engineering	23-27 Nov. 2020
Short Term Course	Computer Science and Technology	Internet of Things: Architectures, Protocols, Applications and Security Concerns	14-18 Dec 2020
Short Term Course	Computer Science and Technology	Machine Learning in Healthcare	07-11 Dec 2020
Conference	Chemistry	Frontier Topics in Chemical Sciences (FTCS)	17 Dec.2020
Seminar	Met. & Mat. Engineering	Recent Trends in Joining Technology (RTJT-2020)	19 Dec 2020
Short Term Course	Information Technology	Information Security: Approaches in Application to Physical Layer	11-15 Jan 2021
Conference	Civil Engineering	2 <sup>nd</sup> International Conference on Advanced Technologies for Industrial Pollution Control (ATIPC-2020)	16-18 Dec 2020
Seminar	Civil Engineering	Introduction to Structural Health Monitoring for Civil Structures	19-23 Jan 2021
Workshop	Information Technology & Centre for Healthcare Science &Tech.	International Webinar on Impact of Digital Revolution on Pharma and Healthcare (Theme: Tethering Biosystems to digital revolution)	29 Jan - 02 Feb 2021
Short Term Course	Information Technology	Recent Trends and Applications in Machine Learning	15-19 Feb 2021
Workshop	Civil Engineering	Application of the Non-Conventional Pavement materials and NDT in road infrastructures - Current Practice and Future Trends	01-05 Feb 2021
Webinar	Civil Engineering & Centre for Healthcare Science &Tech.	Sustainable Health & Environmental Management during COVID-19 Pandemic	18-20 Feb 2021
Workshop	Civil Engineering	Planning and Design of Sustainable Transportation Infrastructures	08-12 Mar 2021
Webinar	Information Technology and Electronics &Telecommunication Engineering	Webinar on Cyber Security	01-05 Feb 2021
Webinar	ETC	Women in Engineering: Past and Present	08 Mar 2021
Seminar	AE&AM	Advances in Aerospace Engineering	05 Mar 2021

## 5.6 Institution's Innovation Council (IIC)

In the year 2018, the Ministry of Education (MoE) through MoE's Innovation Cell (MIC) launched the Institution's Innovation Council (IIC) program in collaboration with AICTE for Higher Educational Institutions (HEIs) to systematically foster the culture of innovation and start-up ecosystem in education institutions. Primarily, IICs' role is to engage faculty, students and staff in various innovation and entrepreneurship related activities so that innovation and entrepreneurship ecosystem gets established and stabilized in this institute. IIEST, Shibpur has been a part of this program since its inception. Currently, IIC3.0 is in effect and IIC 2.0 secured 4 star rating last year, out of a 5 star rating system.

As the nation is struggling to overcome the pandemic of COVID-19, all the activities were organized in online mode. Under the aegis of IIC3.0, the Institute has organized multiple orientation sessions related to innovation and entrepreneurship including National Education Policy (NEP) and National Innovation and Start-up policy (NISP) in which eminent personalities like Prof. M. Jagadesh Kumar, Vice-Chancellor, JNU; Padma Shri Prof. Ashok Jhunjhunwala, IIT Madras; Swami Sarvottamananda, Vice-Chancellor, R K Mission Vivekananda Edu. and Research Inst. Belur; Prof. Sidhartha Das, IIT Kharagpur; Mr. Susant Kumar Guru, Hindalco Industries Ltd; Dr. Subhranshu Sanyal, and Ms. Namami Ghosh, IIM Calcutta Innovation Park have addressed these sessions.

IIC3.0 has also organized a toy design workshop by eminent experts including Dr. Sekhar Mukherjee, NID, AP, Prof. Manish Jain, IIT Gandhinagar, Mr. Dipan Kumar Sahu, MoE; Ms Vinita Sidhartha, Kreeda Games and Ms. Anindita Sengupta, Magic Crate.

An online Orientation session on National Education Policy (NEP) was organized on February 26, 2021, where Prof. Bidyut Chakrabarty, Vice Chancellor, Visva-Bharati University and Prof. Parthasarathi Chakrabarti, Director, IIEST, Shibpur discussed on different aspects of the NEP 2020.

One of the milestones of IIC 3.0 is that a team of six students secured a position in the 127 finalist teams of National Innovation Contest 2020 organised by MIC. IIC3.0 is enabling few innovators to shape their idea into the form of prototype and business venture, as well. Institution's Innovation Council (IIC 3.0), IIEST, Shibpur organized 2-day webinar on "Toy Designing: A Make in India Initiative" for the students and faculties of IIEST, Shibpur, as well as for school children on March 25<sup>th</sup> and 26<sup>th</sup>, 2021 to inspire, motivate and ideate the audience towards designing innovative toys based on Indian Culture and Heritage. The program was inaugurated by Director, IIEST, Shibpur. IIC will also organize an online Toy-making competition for students of Schools and Higher Educational Institutes during July-Aug. 2021.

## Events organized by Institution's Innovation Council (IIC)

**Institution's Innovation Council  
IEST Shibpur**  
**IIC ONLINE SESSION**  
By Mr. Gaurav Kapoor  
Chief Business Officer  
IMC Gurgaon Business Park

Held on: 04-12-2020 Time: 11:00 am-1:00 pm  
Topic: Innovation, Start-up and Entrepreneurship

**KEY ASPECTS OF THE TALK**  
Mr. Gaurav Kapoor from IMC, elaborately discussed the concepts of social media technology and entrepreneurship. He even emphasized on the importance of inclusion of innovation in our success. He shared inspiring stories of successful entrepreneurs in the course of his speech which highly motivates all our XE students to attain their career success. Further he answered several questions with the scope of innovation in entrepreneurship.

**IEST, Shibpur  
and with a lot of Energy**

**Indian Institute of Engineering Science & Technology (IEST), Shibpur**  
organises Orientation Session (online) on  
**National Education Policy (NEP) - 2020**  
(Challenges and Prospects of Engineering Education)  
under TEQIP-III program

**Date: February 26, 2021 (Friday)**  
**Time: 10:45 AM - 1:00 PM**

Prof. Partha Sarathi Chakrabarti  
Director  
IEST, Shibpur

Prof. Gautam Anand  
Chairman  
Ranjan Roy Chair

Prof. Konika Das  
Secretary General  
Institute Management Society, IEST

Prof. Subhasis Bhaumik  
Vice-Chairman

Live streaming on Institute YouTube Channel  
<https://youtube.com/IESTShibpur>

**INSTITUTION'S INNOVATION COUNCIL (IIC 3.0)**  
**Orientation Session on  
National Innovation and Start Up Policy**  
30th December 2020, 10.00 AM to 12 Noon

**Inauguration by**  
Prof. Partha Sarathi Chakrabarti  
IEST, Shibpur

Mr. Soumik Bhattacharya  
Chair  
Innovation Cell  
IEST, Shibpur

Ms. Aparna Datta  
Head, Academic Department  
IEST, Shibpur

Prof. Siddhartha Das  
East Bengal University  
Managing Director, STDP  
ST Manager

**Meeting URL:**  
<meet.google.com/vcj-watu-hkq>

**Join us through our YouTube Channel:**  
Institution's Innovation Council IEST Shibpur

**INSTITUTION'S INNOVATION COUNCIL (IIC 3.0)**  
**National Innovation Contest-2020**  
Date: December 26, 2020 (Tuesday)  
Time: 11:30 AM - 01:30 PM

**WORKING OF STRESS FLYERS AND GIVE A WARNING  
IF THE STRESS FLYER TRIGGERS LIMITS ABNORMAL**

**IN IIC-2020, Inspired by the IEST's Innovation Cell (IIC), we have replicated & modified the stress fly system to qualify the best team. Congratulations to the team for creating such a unique system. This system can be used in many other applications like medical, industrial, etc.**

**CONGRATULATIONS TO THE TEAM FOR WINNING FIRST PRIZE**

**Institution's Innovation Council (IIC 3.0)  
IEST, Shibpur**  
Congratulates the team from Year 12, 2021

**Key Functionaries:**  
Soumik Bhattacharya, Soumik.B@iest.ac.in  
Partha Sarathi Chakrabarti, Partha.C@iest.ac.in  
Subhasis Bhaumik, Subhasis.B@iest.ac.in  
Konika Das, Konika.D@iest.ac.in  
Tanmay Pal, Tanmay.P@iest.ac.in  
Joydeep Bhowmik, Joydeep.B@iest.ac.in  
Ankita Pramanik, Ankita.P@iest.ac.in  
Netai Chandra Dey, Netai.D@iest.ac.in  
Jhuma Ganguly, Jhuma.G@iest.ac.in  
Averi Mukhopadhyay, Averi.M@iest.ac.in  
Pritam Saha, Pritam.S@iest.ac.in  
Gautam Anand, Gautam.A@iest.ac.in  
S.K. Mitra, S.K.Mitra@iest.ac.in

**INSTITUTION'S INNOVATION COUNCIL (IIC 3.0)**  
**IEST Shibpur**  
In collaboration with IPR Cell, IEST Shibpur  
Presents  
**Online Session on  
Insight of Intellectual Property Rights**

**January 23, 2021 | 4:00 PM onwards**

**Join us through <https://meet.google.com/vcj-watu-hkq>**  
Also join us through our YouTube Channel:  
Institution's Innovation Council IEST Shibpur

**March 25, 2021 | 4:30 PM – 7:30 PM**

**Registration link: <https://meet.google.com/ctyv-ihmk-uhua>**  
Join us through our YouTube Channel:  
<https://www.youtube.com/IESTShibpur>

Contact-<https://www.iests.ac.in/IEST/InInnCouncil>

### Key functionaries

- Director - Prof. Parthasarathi Chakrabarti
- President - Prof. Subhasis Bhaumik
- Vice President - Prof. Konika Das (Bhattacharya)
- Convenor - Dr. Tanmay Pal
- Innovation Activity Coordinator - Dr. Joydeep Bhowmik
- Startup Activity Coordinator - Dr. Ankita Pramanik
- Internship Coordinator - Prof. Netai Chandra Dey
- IPR Coordinator - Dr. Jhuma Ganguly
- Social Media Coordinator - Dr. Averi Mukhopadhyay
- ARIIA Coordinator - Dr. Pritam Saha
- NIRF Coordinator - Dr. Gautam Anand
- IP Expert/ Patent Expert - Dr. S. K. Mitra

- Startup/ Alumni Entrepreneur - Mr. Sanjoy Ghosh
- Expert from nearby Industry/ Industry association/ Ecosystem Enablers - Mr. Abhijit Ghosh
- Student Members: Ms. Chitralekha Dutta, Mr. Sachindra Rai, Mr. Sudhanshu Dwivedi, Mr. Jyotirmoy Pal, Mr. Rajreet Sarkar, Ms. Tanushree Paul, Mr. Arcot Prasanna Abhinay, Mr. Ritwik Bhattacharya, Mr. Shaurya Rohilla, Mr. Shivam Singh, Mr. Aditya Kumar Singh, Mr. Sahil Baranwal, Mr. Chandan Kumar Rana, Mr. Koteswar Doddi, Mr. Sandipan Datta, Mr. Pramod Surya, Mr. PVS Ramadasu, Ms. Archana Mahato, Mr. D Aravind, Mr. Amit Singh, Mr. Animesh Das, Ms. Neha Bansod, Mr. Aman Kumar, Mr. Shreyanka Saha, Mr. Saurav Jana, Mr. Sai Mahanth Rallapalli, Mr. Anurup De, Mr. Ishan Santosh Kumar Dubey, Mr. Abhishek Mitra, Ms. Koel Sinha, Mr. Udayon Sen, Mr. Yarrakula Sriaa, Mr. Ayanava Roy, Mr. Hrithik Raj, Ms. Tanusweta Sarkar, Mr. Yerra Manisankar, Mr. Lal BabuSah, Mr. Jaideep Adhikari.

**Resource strength (human capital and Physical capital):**

- Total No. of IIC Members - 51
- Total No. of IAs - 10
- Incubation Units - 1
- IP Facilitation Unit - 1

## **5.7 Facilities, Infrastructure of Pre-Incubation & Incubation in promotion of Innovation and Entrepreneurship in the campus**

Tagore Centre for Green Technology Business Incubation (TCGTBI) supported by National Science and Technology Entrepreneurship Development Board (NSTEDB) / Department of Science & Technology, Government of India

Despite India's phenomenal economic rise and proven dominance in technology-related fields on a global scale, the country has consistently been plagued by disparity in the economic status amongst the people. One can fathom this from the fact that though there are four Indians in the global list of top ten richest people, there is a large population which lives below poverty line. While the brilliance of India's technical professionals has taken the country to the position of a global R & D hub, there is a large pool of semi-skilled and unskilled workforce in various sectors. Therefore, despite the obvious advantages of a young talent pool, there have been constraints while forming development policies. Indian policy makers are faced with the magnanimous task of balancing the aspirations of the skilled and talented with the basic needs of those at the bottom of the pyramid. Today, India has made commendable progress in terms of growth of a scientific and technological culture. It occupies a prominent place in the world map with regards to its contribution towards knowledge driven products and services, its emergence as a global R&D hub, and the quantity and quality of its professionals related to science and technology. In order to sustain this growth in an ever-changing, ever-challenging global business environment, the speedy translation of innovative ideas into products, processes and services for the market is the need of the hour. Solely individual talent, hard work and initiatives would not be able to guarantee such speed in the face of tremendous

pressure and demands of global standards. For that, an appropriate enabling ambience and support system need to be built including provision for initial investment and networking opportunities. In India, while there are a good number of individual level of innovations happening, the systems to productize them through commercial ventures are yet to be fully developed. This is aggravated by the absence of linkages of researchers and innovators with the market, and the social milieu that does not accept failure very kindly. In spite of these hurdles the number of innovative start-ups is rising at a phenomenal rate. Having seen this rising level of interest in entrepreneurial and innovative ventures, particularly in technology related fields, the Government of India (GoI) has initiated setting up of Technology Business Incubators (TBIs) to nourish and promote these ventures through incubation. The process is aimed at enabling individual and group level technology ventures to contribute towards wealth creation and new job creation in their regions. TCGTBI is such an initiative of the Government of India.

Infrastructural facilities are offered to the incubate companies on an individual basis, along with a set of shared/ common infrastructure mentioned under:

- Office space: Company specific
- Internet connection

Apart from company specific infrastructure as stated above, TCGTBI provide following facilities to all incubatee companies on shared basis: a) Photocopier b) Scanner c) shredder d) Teleconferencing facilities as available. The usage of this facility will be paid by incubates as per the rate fixed by TCGTBI, time to time. e) Meeting/Conference room with projection equipment f) TCGTBI Library facilities g) Pantry facilities h) Common secretarial pool/staff (depending on availability of such staff with BI)

Besides, TCGTBI will facilitate the incubate companies to access departmental laboratories and other resources of IEST, Shibpur or at its Partner Institute for their specific requirements. Total plinth area available: 5,000 sqft Including Mezzanine area of 450 sqft for AC Conference Hall 22 AC modular cabinets of carpet area 44 sqft each Common space of 3,245 sqft includes: AC Conference Hall, Reprographic facilities, TCGTBI Office, TCGTBI Library, Pantry Dining Area, Visitors Lobby, Passage, Other Amenities.

### **Achievements**

- Number and Different types of I&E and IPR activities Conducted : 32
- No. of student's & faculty ideas generated : 20
- No. of student's & faculty Innovation/prototypes developed: 03
- No. of Student & Faculty Start-ups/Ventures established.  
Under processing – 3            |            Completed- Nil
- Amount spent on promotion and awareness generation on Innovation                      Entrepreneurship in the campus  
Q1+Q2 - ₹ 66,000/- , Q3+Q4 - ₹ 1,32,000/-

## **5.8 Highlight of few best IIC Faculty/Student members and their achievements / Rewarded for the innovations at different forum**

### **❖ Bentley's'**

List of teams by IIESTS' students selected for top 20 project all over the world in Bentley's Become the First Future Infrastructure Star competition:

- Team Paru
  - i) Prakash Kumar, 4th year B. Tech., Metallurgy and Materials Engineering; ii) Arunima Mudi, 4th year, B. Tech., Computer Science and Technology.
- Team Beings
  - i) Avishek Das, 4th year, B. Tech., Civil Engineering; ii) Rohit Koiri, 5th year, B. Arch.
- Team Experimenters
  - i) Rahul Kumar Prajapati, 4th year, B. Tech., Civil Engineering; ii) Purushotam Kumar Mehta, 4th year, B. Tech., Civil Engineering.

### **❖ ZS Prize**

Selected in the top 50 ideas of ZS Prize organized ZS Associates in the year 2020.

- Ayanva Roy, 4th Year, Btech Electrical Engineering,
- Gaurav Mondal, 4th Year, Btech Electrical Engineering

### **❖ IIFM**

Indian Institute of Foreign Management organised Green Nudge competition in their business conclave and two students received 2nd prize in it.

- Rajnish Kumar Suman, 3rd Year, Civil Engineering
- Vidushi Garg, 3rd Year, Civil Engineering

### **❖ CoastalHacks**

CoastalHacks organised hackathon where Aditya Das, 3rd Year, IT received 2nd Prize.

### **❖ Swadeshi Microprocessor Challenge**

Ministry of Electronics and Information Technology, Govt of India organised Swadeshi Microprocessor Challenge where one of the students ended up being the Quarter Finalist out of 66 thousand teams in the national level.

Team members:

- Raushan Singh, 3rd Year, IT
- Trina Ghosh, 4th Year, CSE
- Anirrudh Hazra , 4th Year, CSE
- Subhmoy Nandi, 4th Year, CSE.



#### ❖ Qualification in NIC-2020 and appreciation from GAABESU

Topic: Sensing of stress on flyovers and give a warning if the situation (stress Limit) turns abnormal

Innovators:

- Sayak Mandal
- Gourab Banerjee
- Anandan Basu
- Kumar Suryamauli Shah
- Nand Kumar Nitesh

#### ❖ Participation in various programs of Central and State Government

- NISP Adoption status - Trained Faculty, Policy Formulation, Policy Implementation: Under process
- Smart India Hackathon etc.

#### ❖ National Innovation Contest 2020

A team of six students secured a position in the 127 finalist teams of National Innovation Contest 2020 organised by *Social Media & Connections of IIC institute*.

[https://twitter.com/iic\\_iests](https://twitter.com/iic_iests)

<https://www.linkedin.com/in/iic-iiest-shibpur/>

<https://www.facebook.com/iic.iests/>

<https://www.youtube.com/iiciestshibpur>

[https://www.instagram.com/iic\\_iests/](https://www.instagram.com/iic_iests/)



**2019 Student Design Challenge, India - Winners: Structural Engineering Category**

**Bentley®**  
Advancing Infrastructure

Winner: Rishav Dutta & Ritadhi Roy  
Department of Civil Engineering  
Indian Institute of Engineering Science and Technology  
[https://communities.bentley.com/communications/other\\_communities/bc\\_careers\\_network\\_for\\_academia/Bulletin/2019-student-design-challenge-india---winners-structural-engineering-category](https://communities.bentley.com/communications/other_communities/bc_careers_network_for_academia/Bulletin/2019-student-design-challenge-india---winners-structural-engineering-category)

Designed a futuristic building with good aesthetics. The design had ample room and was spacious in the given formation of a commercial building

**Project Title:** Design & development of computerized instrument for testing bending behaviour of semi-rigid fabrics with special reference to technical textiles  
**Patent:** A SYSTEM FOR TESTING DYNAMICALLY BENDING BEHAVIOR OF SEMI-RIGID FABRICS AND A METHOD OF SUCH TESTING, March 2021

**Instrument Development Program-DST, GOI** Rs. 30.086 Lakh

Mr. Surajit Sengupta  
Principal Scientist & Head,  
Mechanical Processing  
Division,  
ICAR-NINFEET, Kolkata

- It expresses the bending of wide range of fabric, in terms of load and deflection.
- Dynamic rigidity can be measured.
- It shows reliable and repetitive results.
- The instrument is mechanized and computerized.
- The instrument is user friendly, low cost, informative and essential for technical textiles.

Dr. Anindita Sengupta  
Professor, Electrical Engineering  
Department & Head,  
School of Mechatronics and  
Robotics, IEST, Shibpur

Dr. Sanjoy Debnath  
Principal Scientist,  
Mechanical Processing  
Division,  
ICAR-NINFEET, Kolkata

**MILCA AWARD 2020**  
**RESEARCH SCHOLAR CATEGORY**

**Picture-1**   
**Picture-2**

Confederation of Indian Industry (CII) hosted their first online CII MILCA AWARD 2020 at the international level and invites included academic institutions, their incubation centers, and research Scholars to present their innovative projects/research studies.

Dr. Sudipta Basu Pal from IEST, SHIBPUR of Electrical Engineering Department participated under the research scholar category. The main invention is a novel automated low-cost Solar I-V tracer. The present invention relates to the metrological aspects of solar photovoltaic (PV) energy system engineering. More particularly, the invention relates to the design of a new sensor in solar PV I-V curve tracing, which is the best means for evaluating the electrical performance

**THIS CERTIFICATE IS AWARDED TO**  
**RAUSHAN SINGH**  
for participating as Quarter Finalist under  
'Swadeshi Microprocessor Challenge 2020'

**Smt. Sunita Verma,**  
Sr. Director, MeitY

Issued on: 16/02/2021  
Issued by: MeitY  
©Pronetin 2021

**MICROPROCESSOR CHALLENGE**  
**CERTIFICATE OF PARTICIPATION**

**Ministry of Electronics and Information Technology Government of India**

**Swadesh Microprocessor Challenge 2020**

**RAUSHAN SINGH**

**MeitY**

**Pronetin**

**QR Code**



## Contact

President: [iic-iest@iiests.ac.in](mailto:iic-iest@iiests.ac.in)

Student Representative: [iic.iests@gmail.com](mailto:iic.iests@gmail.com)



## **06** Training and Placement





## 6.1 The Mandate

Training and placement of students are looked after by the Human Resource Management (HRM) Department. Mandates of the Department include, *inter alia*, the following.

- Job Placements of the students of the Institute through Campus and Off-campus selection processes
- Internship / Summer Training of students at various industries and research institutes
- Grooming up (Personality/Soft-Skill/ Performance Effectiveness) programme for the Students
- Facilitation for other options: Preparatory programme for competitive examinations and other educational options abroad
- Industry Interaction Programme/ Academic collaborations
- Entrepreneurship Development
- Innovation and IPR awareness and facilitation
- Career Counseling
- Offering Ph.D. Programme in specific inter-disciplinary areas

This predominantly is a service department catering to all UG, PG and PhD students in terms of their placement and training.

## 6.2 Some of the Related Industry-Connect and Allied Events facilitated by HRM Department during 2020- 2021 where IESTS Students took part

- Industry Connect Programme: Hackathon by Zeta
- Opportunity for APM Internship Program by Upraised.
- Certified Online Mechanical Internship Program by ANSYS
- Cognizant Skill Certification Program for 2021 pass-out batch
- Masai's Placement Challenge competition for 2021 pass-out batch
- Schneider Electric's Global Student Competition - Go Green '21
- Flirp Hackathon 8.0 for 2021 and 2022 pass-out students
- Hackathon Coding Challenge- Hyland Software Solutions LLP
- Hackathon in the Capgemini Tech Challenge i (08.11.2020)

### 6.3 Placement Statistics

The details of the UG and PG placements for the last 3 years with department wise break up are furnished in Table 6.3.1 and Table 6.3.2 respectively. Table 6.3.3 records the details of the placement of the students from schools /centers at the PG level. Table 6.3.4 documents the Internship / Vacational Training data for the last 3 years.

**Table 6.3.1 : UG Placement**

	Department	CST	ETC	EE	IT	ME	CE	MET	MIN	AERO	ARCH	Total
2020-2021 <b>(Till August 2021)</b>	Total Number of Offers including multiple offers	87	71	83	94	57	70	20	23	9	0	514
2019-2020		88	49	63	78	45	54	16	20	14	0	427
2018-2019		82	43	61	81	61	59	25	30	20	0	462

**Table 6.3.2 : PG Placement (M.Tech & Dual Degree)**

	Department	CST	ETC	EE	ICE	ME	CE	MET	MIN	APP MECH	PHY	CHEM	MATH	EARTH SC	Total
2020-2021 <b>(Till August 2021)</b>	Total Number of Offers including multiple offers	10	18	4	10	1	2	3	2	2	0	0	0	0	52
2019-2020		17	16	9	2	8	1	1	2	0	1	0	0	0	67
2018-2019		5	14	3	14	9	7	1	0	1	0	0	3	2	59

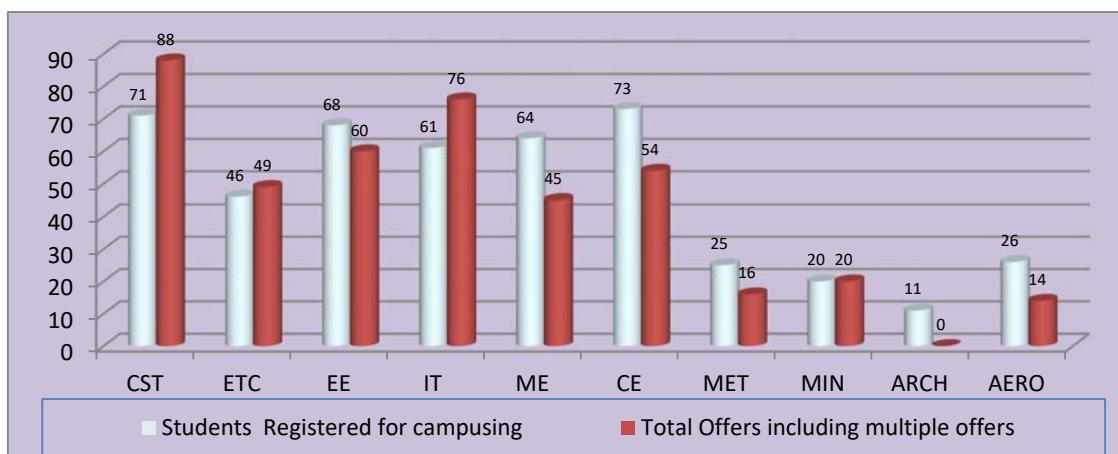
**Table 6.3.3 : PG Placement (School/Centre)**

	Dept. / Course	Bio Medical	VLSI	Mat. Sc.	Mechatronics	Safety & Occup Health	REST	MBA	FPNS	Total
2020-2021 <b>(Till August 2021)</b>	Total Number of Offers including multiple offers	0	7	0	1	1	0	2	0	11
2019-2020		0	2	1	0	2	1	17	0	23
2018-2019		0	6	0	1	0	0	0	0	7

**Table 6.3.4 : Vacational Training / Internship**

Year	Internship / Training
2020-2021 <b>(Summer vacation 2020)</b>	30 +
2019-2020	No. of companies offering Internship / Vacational Training
2018-2019	20 +
	61

The above figures do not include Internships in different Industries and Academic Institutions organized through individual initiatives of the students.

**Fig. 6.3.1 Eligible UG Batch Size vs. Total Offers made through Institutional Placement Process for 2021 pass-out batch (Till August 2021; still ongoing)****Fig. 6.3.2 Eligible PG Batch Size vs. Total Offers made through Institutional Placement Process for 2021 pass-out batch (Till August 2021; still ongoing)**

## 6.4 Recruiters of 2021 Pass-Out Batch (till August 2021; still ongoing)

Name of the Recruiter / Job Profile	Name of the Recruiter / Job Profile
Aakash Institute	BTL EPC Limited (Unit of Shrachi Group)
Abzooba	Byju's
Aditya Birla Group	Cadence Design
Aditya Birla Group	Cadence Design Systems Ltd. (B.Tech)
AM/NS India	Cadence Design Systems Ltd. (DD & M.Tech)
Anchanto Services Pvt. Ltd.	Capgemini (T201)
Arcelormittal Design and Engineering Centre	Capgemini (T202)
ArcVac ForgeCast Pvt. Ltd.	CEAT Ltd.
Atlassian	CESC Ltd.
Bajaj Auto Ltd.	CESC Ltd. (Civil Engg.)
Bentley Systems	CESC Ventures Ltd.
BNY Mellon	CGI Information Systems
Codenation Innovation Labs	Indus Net Technologies
Cognizant	Infosys
Commvault Systems	Infosys (HackwithInfy)
DCG AI Lab Academy Pvt. Ltd.	Infosys (InfyTQ)
DCG Data Core Systems Pvt. Ltd.	Infosys System Engineer(HackwithInfy)
Deutsche Bank	Institute of Engineering & management
Digate Infotech Pvt. Ltd.	Interra Systems India Pvt. Ltd.
Divsoft Solutions India Pvt. Ltd.	Intuit India
Electrosteel Casting Ltd. (Civil)	ITD Cementation India Ltd.
Electrosteel Casting Ltd. (Metallurgy)	Jio Platforms Ltd. (Reliance Group)
Ericsson India Global Services	JusPay
Ericsson India Global Services (Only Female)	K12 Techno Services Pvt. Lt.
Ernst & Young Services Pvt. Ltd.	L&T Limited (GET)
ESSPROM Consultants LLP	L&T Limited (PGET)
FermionIC Design Pvt. Ltd.	L&T Technology Services
Gainwell Commosales Pvt. Ltd	L&T Technology Services (M.Tech)
Google (SWE)	Lexmark International Pvt. Ltd.
Haldia petrochemicals Ltd.	Maheswari Mining Pvt. Ltd.
Haldia petrochemicals Ltd. (CST)	Mapline

Name of the Recruiter / Job Profile	Name of the Recruiter / Job Profile
HCL Technologies Ltd. (GET)	Maruti Suzuki India Ltd.
HCL Technologies Ltd. (PGET)	Media.Net
Hexaware Technologies	Media.Net (SRE)
HomeLane.Com	Mentor Graphics
Hyland Software	Microsoft IDC
IFB Industries Ltd.	Morgan Stanley
iMerit	Navigator Software
Indian Oil Corporation Ltd.	PlanetSpark
Polestar Solutions Pvt. Ltd.	TCS Digital (Through CodeVita)
PriceWaterhouse Coopers	TCS Ninja
PriceWaterhouse Coopers	TCS Ninja (Through CodeVita)
Pumpsense Fluid Engineering Pvt. Ltd.	TCS R&I CTO
Rashmi Group	Tega Industries
Realization Technologies	Telecom Regulatory Authority of India
Runaya Industries	Texmaco Rail & Engineering Ltd.
Saint Gobain India	Titagarh Wagons Ltd.
Schneider Electric	TLT Engineering Pvt. Ltd.
Senrysa Technologies Pvt. Ltd.	Trakinvest Group
SMS India Pvt. Ltd.	Vedanta- Cairn Oil & Gas
Srijan Ecological Upliftment Pvt. Ltd.	Vedanta Ltd.
SRK Mining Services (India) Pvt. Ltd.	Vedanta Ltd. (Mining)
Synopsys India Pvt. Ltd.	Vikram Solar Pvt. Ltd.
Synopsys India Pvt. Ltd. (ASIC Digital Design)	Wells Fargo EGS
Tata Power	Wipro Ltd
Tata Steel BSL Ltd.	WSP
Tata Steel Long Products Ltd.	Worthington Pump India Limited
Tata Steel Ltd.	Zifo R&D
Tata Steel Ltd. (Electrical)	Ziroh Labs Pvt. Ltd.
Tata Steel Ltd. (Systems)	ZS Associates
Tata Steel Utilities & Infrastructure Services Limited	ZS Associates
TCS Digital	Zycus

## 6.5 Vacational Training

Besides, final Placements, many students, predominantly from Pre-final Year, also had the opportunity for Vacational Training (VT) or Summer Internship Programme in reputed industrial / academic institutions - some of which are also maturing to Pre-Placement Offers. However, it may be mentioned that, due to lock-down arising out of Covid-19 pandemic, many such internships, particularly in physical mode, were affected during summer vacation of 2020. Some of that could successfully conduct the Internship during Summer Vacation 2020 are given below:

Name of the Organisations	Name of the Organisations
Aditya Birla Group	Jindal Stainless Ltd.
BARC	Media. Net
Bokaro Thermal Power Station	Micro-Soft
C E S C Ltd.	P W C
Daikin Airconditioning (I) Ltd.	Saint Gobain India
Digite Infotech Services Pvt. Ltd	Semi-conductor Laboratory
Durgapur Steel Thermal Power Station	Tata Steel Ltd.
Hyland Software	Texas Instruments
IIT ,Delhi	Vedanta Crain Oil & Gas
Jammu & Kashmir Power Dev. Corpn. Ltd.	ZS Associates



# **07 Faculty Recruitment**





## 7.1 Status of Regular Faculty Recruitment

The first round of selection process of recruitment for faculty posts in different academic units of the institute against the rolling advertisement (**No. JU/RO/19/57, dated: 11.06.2019** and **DE/RO/19/104, dated: 05.12.2019**) published in the institute website [www.iiests.ac.in](http://www.iiests.ac.in) was extended till 31<sup>st</sup> July, 2021.

The applications received for the first round of selection were sent to the respective academic units on 27.08.2021 for short listing.

## 7.2 Special Drive for Faculty Recruitment against Backlog Reserved Vacancies

(Advertisement No. RO/SE/21/12 Dated: 22.09.2021)

The updated monthly report of the status of faculty recruitment against the reserved backlog vacancies of the institute has been sent to the Secretary (HE), Department of Higher Education, Ministry of Education, Government of India [vide D.O. No. 33-2/2021-TS-III (Pt.I), GOI/ 93/ 2021, **Dated: 24.08.2021**]

Institute has already initiated a special drive for faculty recruitment against 23 backlog reserved vacancies (**SC = 2, ST = 2, OBC = 19**) at the Assistant Professor level. The first page of Advertisement in the institute website has been pasted below. The advt. was published on 22nd September, 2021 and the last date of submission of application is 21st October, 2021.

**Number of Backlog Vacancies with Reference to the Advertisement No. AU/RO/18/76, dated 03/08/2018:**

Sl.	Assistant Professor	Number of vacancies
1	ST	02
2	SC	02
3	OBC	19

**Reservation for PWD is applicable as per Central Government Rules**





# 08 Publications





## 8.1 Journal

### Aerospace Engineering and Applied Mechanics

	Publication	Impact Factor
1	A. Das, M. Rout and A. Karmakar, Sadhana, Springer Publication, <b>45</b> , 42005, 2020.	1.127
2	R. Firoz, S. K. Basantia, N. Khutia, H. N. Bar, S. Sivaprasad and G. V. S. Murthy, Journal of Alloys and Compounds, Elsevier, <b>845</b> , 156276, 2020.	4.65
3	Y. M. Lee, J. H. Lee, L. P. Raj, J. H. Jo and R. S. Myong, Aerospace Science and Technology, <b>109</b> , 106417, 2021.	5.107
4	A. Ghosh and N. Mondal, IOP Conf. Series: Materials Science and Engineering, <b>1080</b> , 012037, 2021.	0.51
5	A. Das, S. Upadhyay and N. Kanoje, Indian Science Cruiser, <b>34</b> , 20, 2020.	2.277
6	A. Das and G. Agarwal, Australian Journal of Mechanical Engineering, <b>1</b> , 2020.	1.24
7	S. K. Jung, L. P. Raj, A. Rahimi, H. Jeong and R. S. Myong, Aerospace Science and Technology, <b>106</b> , 106174, 2020.	5.107
8	S. Chatterjee, S. Roy, S. Majumder and A. Roy Chowdhury, Journal of Biomechanical Engineering (ASME), <b>142</b> , 41640, 2020.	2.097
9	Y. M. Lee, J. H. Lee, L. P. Raj, J. H. Jo and R. S. Myong, Journal of Computational Fluids Engineering, <b>109</b> , 106417, 2020.	1.071
10	A. Chakraborty, P. Datta, S. Majumder, S. C. Mondal and A. Roychowdhury, Computers in Biology and Medicine, <b>124</b> , 44470, 2020.	4.589
11	R. Roy, A. Roy and G. Bhattacharya, Journal of Structural Engineering, <b>146</b> , 07020011, 2020.	NA
12	R. Roy, A. Roy and G. Bhattacharya, Journal of Structural Engineering, <b>146</b> , 04020113, 2020.	NA

### Architecture, Town and Regional Planning

	Publication	Impact Factor
1	K. Ghosh and A. Sarkar, Asian Journal of Water, Environment and Pollution, <b>17</b> , 97, 2020.	0.71
2	R. Pal, S. Roy, B. Thakur, S.K. Paul and S. Mitra, Solid State Technology, <b>63</b> , 19482, 2020.	2.142
3	A.A. Mamun, S.K. Paul and S.K.Roy, Journal of the Institution of Engineers (India): Series A, <b>102</b> , 63, 2021.	0.96
4	T. S. Maparu and T. N. Mazumder, Transport Policy, 2020.	4.674
5	T. Sarmah, S. Das, A. Nerandra and B.H. Aithal, International Journal of Disaster Risk Reduction, <b>50</b> , 101659, 2020.	4.32
6	A. Mohanta, S. Das and R.N. Mohanty, Architectural Engineering and Design Management, <b>1</b> , 2021.	2.6
7	A. Narendr, S. Das, V. Shivamurthy and B.H. Aithal, Journal of Environmental Informatics Letters, <b>3</b> , 107, 2020.	4.604

**Civil Engineering**

Publication	Impact Factor
1 R. Chakraborty, A. Ghosh, A. Adak and A. Chatterjee, J Indian Chem Soc., <b>97</b> , 533, 2020.	0.284
2 S. Das, A. Adak and A. Barui, J Indian Chem Soc. , <b>97</b> , 547, 2020.	0.284
3 B. Mondal, A. Adak and P. Datta, J Indian Chem Soc., <b>97</b> , 613, 2020.	0.284
4 M. Bairagi, A. Adak and MM. Islam, J Indian Chem Soc., <b>97</b> , 621, 2020.	0.284
5 R. Bhattacharya and D. Mazumder, J Indian Chem Soc, <b>97</b> , 671, 2020.	0.284
6 S. Kundu and B. V.S. Viswanadham, International Journal of Geomechanics, American Society of Civil Enggs.(ASCE), <b>20</b> , 2020.	3.405
7 B. Chatterjee, D. Mazumder, Biomass and Bioenergy, <b>139</b> , 105594, 2020.	5.061
8 S. Bhaduri and D. Mazumder, J IndianChemi Soc, <b>97</b> , 2643, 2020.	0.284
9 R. Bhattacharya and D. Mazumder, Journal of Indian Chemical Society, <b>97</b> , 2736, 2020.	0.284
10 P. Sanghamitra, D. Mazumder and S. Mukherjee, Journal of Indian Chemical Society, <b>97</b> , 2765, 2020.	0.284
11 S. Bhaduri and D. Mazumder, Journal of Indian Chemical Society, <b>97</b> , 2771, 2020.	0.284
12 R. Loganath, D. Mazumder, Journal of Indian Chemical Society, <b>97</b> , 2824, 2020.	0.284
13 P. Praveen and D. Mazumder, Journal of Indian Chemical Society, <b>97</b> , 2840, 2020.	0.284
14 R. Ahmad, P. Sanghamitra and D. Mazumder, Journal of Indian Chemical Society, <b>97</b> , 2859, 2020.	0.284
15 P. Sanghamitra, D. Mazumder and S. Mukherjee, Journal of Environmental Science and Health, Part A, <b>56</b> , 394., 2021.	2.269
16 R. Bhattacharya and D. Mazumder, Journal of Environmental Chemical Engineering, <b>9</b> , 104689, 2021.	5.909
17 R. Roy, P. Saha, Transport, <b>35</b> , 588, 2021.	1.761
18 NH. Barbhuiya, A. Adak, Env Monit Assess. , <b>193</b> , 44531, 2021.	2.513
19 R. Bhattacharya, D.Mazumder, Bioprocess and Biosystems Engineering, <b>44</b> , 635, 2021.	3.21
20 S. Halder, U. Saha, J. Sustainable Water Built Environ, <b>7</b> , 04021012, 2021.	0.48
21 S. Patra, Transportation Infrastructure Geotechnology, <b>8</b> , 88, 2021.	1.11
22 S. N. Thakur, C. Ray, Structures, <b>32</b> , 876 2021.	2.3
23 S. Roy. S. N. Thakur, C. Ray, European Journal of Mechanics - A/Solids, <b>88</b> , 2021.	4.22
24 S. N. Thakur, C. Ray, Thin-walledStructures, <b>160</b> , 107342, 2021.	4.442
25 P.Sanghamitra, D. Mazumder, S. Mukherjee, Journal of Indian Chemical Society, <b>97</b> , 819, 2020.	0.284
26 S. Das, A. Adak and A. Barui, J Water Process Eng, <b>37</b> , 101497, 2020	5.485
27 S. Goswami and D. Mazumder, Journal of Indian Chemical Society, <b>97</b> , 1347, 2020.	0.284
28 R.Loganath and D. Mazumder, Journal of Indian Chemical Society, <b>97</b> , 1361, 2020.	0.284
29 D. Mazumder and S. Bhaduri, Journal of Indian Chemical Society, <b>97</b> , 1399, 2020.	0.284
30 S.Kabasi, A. Roy, S. Chakraborty, Proc. of the Institution of Civil Engineers-Structures and	1.171

Publication	Impact Factor
Buildings, 1, 2021.	
31 A. Mandal. C. Ray and S. Halder, Institution of Engineers (India): Series C, <b>101</b> , 281, 2020.	1.42
32 S. Ghosh and S. Chakraborty, Earthquake and Structures, <b>20</b> , 97, 2021.	2.018
33 R. Mandal, S. Chakraborty, S. Chakraborty, ASCE, J of Materials in Civil Engineering, <b>33</b> , 04021130, 2021.	2.169
34 G. Datta, A. Sahoo and S. Bhattacharjya, Wind and Structures, <b>31</b> , 59, 2020.	2.47
35 G. Datta, S. Bhattacharjya, S. Chakraborty, Structures, <b>33</b> , 3615, 2021.	2.983
36 G Datta, S.Bhattacharjya, S Chakraborty, Structure & Infrastructure Engg , <b>17</b> , 887, 2021.	3.087
37 S. Ghosh, S. Chakraborty, Probabilistic Engg Mech, <b>61</b> , 10306, 2020.	3.35
38 G. Datta, S. Bhattacharjya, S. Chakraborty, Structural & Multidisciplinary Optimization, <b>62</b> , 2711, 2020.	4.542
39 S. Kabasi, A. Roy and S. Chakraborty, Structural and Multidisciplinary Optimization, <b>63</b> , 1085, 2021.	4.542
40 S Chakraborty, R. Mandal, Subrata Chakraborty, Maurizio Guadagnini, K. Pilakoutas, J of Material Research and Technology, <b>11</b> , 1193, 2021.	5.289
41 A. Roy, S. Chakraborty, Rel. Engg& Sys Safety, <b>200</b> , 106948, 2020.	6.188
42 S. P. Zhu, B. Keshtegar, S. Chakraborty, N. T. Trung, Computer Methods in Appl. Mech. Engg, <b>366</b> , 113027, 2020.	6.756

### Centre of Excellence in Green Energy and Sensor Systems

Publication	Impact Factor
1 A. Dhara, D. K. Chanda, A. Nandi, A. Sinha, N. R. Bandyopadhyay and N. Mukherjee, Journal of Environmental Chemical Engineering, <b>8</b> , 103672, 2020.	5.9
2 R. Narzary, P. Phukan, S. Maity, P. PratimSahu, Journal of Materials Science: Materials in Electronics, <b>31</b> , 4142, 2020.	2.478
3 S. Baruah, J. Bora, S. Maity, Optical and Quantum Electronics, Springer, <b>52</b> , 380, 2021.	2.084
4 A. K. Dikshit, S. Maity, N. Mukherjee, P. Chakrabarti, IEEE Journal of Photovoltaics, <b>11</b> , 983, 2021	3.887
5 E. Kar, M. Barman, S. Das, A. Das, P. Datta, S. Mukherjee, M. Tavakoli, N. Mukherjee and N. Bose, Sustainable Energy & Fuels, <b>5</b> , 1857, 2021.	6.36
6 S. Baruah, J. Bora and S. Maity, Semiconductor Science and Technology, IOP, <b>36</b> , 45017, 2021.	2.352
7 A. K. Dikshit, P. Banerjee, N. Mukherjee and P. Chakrabarti, Superlattices and Microstructures, <b>149</b> , 106747, 2021.	2.65
8 R. Narzary,S.Maity, P. P. Sahu, IEEE TRANSACTIONS ON ELECTRON DEVICES, <b>68</b> , 610, 2021.	2.917
9 A. Baral, G. Das, A. B. Roy, A. Kole, N. Mukherjee and S. Bose, IEEE Journal of Photovoltaics, <b>10</b> , 1203, 2020	3.05
10 B. Biswas, N. R. Bandyopadhyay, N. Mukherjee and A. Sinha, Fibers and Polymers, <b>6</b> , 1731, 2021	2.25

Publication	Impact Factor
11 R. Maity, S. Shuvro, S. Maity and N. P. Maity, Microsystem Technologies, <b>26</b> , 1001, 2020.	2.276
12 S. Baruah, J. I. Bora, S. Maity, Microsystem Technologies, <b>26</b> , 2651, 2020.	2.276
13 D. Muchahary, S. Maity, S. K. Metya, B. Basumatary, Superlattices and Microstructures, <b>146</b> , 106651, 2020	2.658

## Chemistry

Publication	Impact Factor
1 U. N. Guria, K. Maiti, S. S. Ali, A. Gangopadhyay, S. K. Samanta, K. Roy, D. Mandal, A. K. Mahapatra, Chemistry Select (Organic & Supramolecular Chemistry Section), <b>5</b> , 3770 , 2020.	2.109
2 U. N. Guria, K. Maiti, S. S. Ali, A. Gangopadhyay, S. K. Samanta, K. Roy, D. Mandal, A. K. Mahapatra,, Chemistry Select (Organic & Supramolecular Chemistry Section), <b>5</b> , 3770 , 2020.	2.109
3 B. C. Ranu, T. Ghosh, L. Adak, Curr. Microwave Chem, <b>7</b> , 40, 2020.	2.9
4 2. M. Chakraborty, A. Mondal, S. K. Chattopadhyay, New. J. Chem., <b>44</b> , 12916, 2020.	3.288
5 R. K. Chaudhuri and S. Chattopadhyay, Journal of Chemical Physics, <b>154</b> , 114106, 2021.	3.48
6 R. K. Chaudhuri and S. Chattopadhyay, Journal Physical Chemistry A, <b>125</b> , 543, 2021.	2.6
7 S. Chattopadhyay, ACS Omega, <b>6</b> , 1668, 2021.	3.52
8 D. Banik, S. K. Manna, A. K. Mahapatra, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, <b>246</b> , 119047, 2021.	4.098
9 R. Banerjee, A. Pal, D. Ghosh, A. B. Ghosh, M. Nandi and P. Biswas, Materials Research Bulletin, <b>123</b> , 111085, 2021.	4.641
10 S. Joardar, M. L. Adams, R. Biswas, G. V. Deodhar, K. E. Metzger, K. Deweese, M. Davidson, R. M. Richards, B. G. Trewyn and P. Biswas, Microporous and Mesoporous Materials, <b>313</b> , 110824, 2021.	5.455
11 D. Pan, S. Maity, N. Parshi and J. Ganguly, Journal of Molecular Liquids, <b>322</b> , 114565, 2021.	6.6165
12 S. Maity, N. Naskar, B. Jana, S. Lahiri and J. Ganguly, Carbohydrate Polymers, <b>251</b> , 116999, 2021.	9.381
13 S. Samanta, S. Ray, S. N. Bhaduri, P. K. Samanta and P. Biswas, Tetrahedron Letters, <b>61</b> , 152272, 2020.	2.415
14 S. Manna, R. K. Chaudhuri, S. Chattopadhyay, Journal of Chemical Physics, <b>152</b> , 244105, 2020.	2.99
15 B. Jana, S. Maity, A. Mondal and J. Ganguly, Journal of Luminescence, <b>222</b> , 117128, 2020	3.599
16 T. K. Maji, Md. N. Hasan, S. Ghosh, D. Wulferding, C. Bhattacharya, P. Lemmens, D. Karmakar, S. K. Pal, Journal of Photochemistry and Photobiology A: Chemistry, <b>397</b> , 112575, 2020.	4.291
17 A. Hussain, S. Ghosh, K. Roy, S. Nath., B. Sarkar., A. Dutta., P. Maji., S. Basu., S. Paul., S. Dey., K. Chakraborty., B. Raychaudhury., K. Acharya., J. Ganguly, C. Pal, Parasite Immunology, <b>43</b> , e12806, 2021.	2.281

Publication	Impact Factor
18 M. Mandal, A. K. Mahapatra and A. Kar, <i>Analyst</i> , <b>146</b> , 2998, 2021.	3.864
19 L. Adak, T. Hatakeyama, M. Nakamura, <i>Bull. Chem. Soc. Jpn.</i> , <b>94</b> , 11251, 2021.	4.488
20 M. Mandal, A. K. Mahapatra, A. Kar, <i>Analyst</i> , <b>146</b> , 2998, 2021.	4.616
21 S. Baduri, D. Sariket, D. Ray, S. Ghosh, J. K. Singh, H. S. Lee, C. Bhattacharya, <i>Electrochimica Acta</i> , <b>372</b> , 137754, 2021.	6.901
22 N. Parshi, D. Pan, B. Jana, J. Ganguly, <i>Sensors and Actuators: B. Chemical</i> , <b>311</b> , 129419, 2021.	7.46
23 S. Misra, P. Singh, A. Das, P. Branda, P. Sahoo, N. Sepay, G. Bhattacharjee, P. Datta, B. Satpati, A. K. Mahapatra and J. Nanda, <i>Materials Advances</i> , <b>1</b> , 3532, 2020.	1.5
24 L. Adak, T. Ghosh, <i>Curr. Org. Chem.</i> , <b>24</b> , 2634, 2020.	2.18
25 J. Biswas, P. Saha J. Ganguly, A. k. Paul, <i>Journal of Basic Microbiology</i> , , 2020, [Impact Factor: 2.281]	2.281
26 M. Periyasamy,A.Saha, S. Sain, M. Mandal, U. Sengupta, A. Kar, <i>Journal of Environmental Chemical Engineering</i> , <b>8</b> , 104604, 2020.	5.909
27 A. Jana, A. Aher, P. Brandao, S. S. Ali, S. K. Samanta, G. Mondal, P. Bera, A. Santra, S. K. Manna, A. K. Mahapatra and P. Bera, <i>Polyhedron</i> , <b>192</b> , 114815, 2020.	2.067
28 1. S. Sengupta, S. Khan, B. N. Mongal, W. Lewis, M. Fleck, S. K. Chattopadhyay, S. Naskar, <i>Polyhedron</i> , <b>191</b> , 114798, 2020.	3.052
29 S. Manna, S. Sinha Ray, P. Ghos, S. Chattopadhyay, <i>Molecular Physics</i> , <b>118</b> , e1641639, 2020.	1.704
30 A. Sharma, S. Chattopadhyay, D. Sinha, <i>Molecular Physics</i> , <b>118</b> , e1774673 , 2020.	1.704
31 D. Sariket, D. Ray, S. Baduri, S. Ghosh, A. Maity, C. Bhattacharya, <i>Electroanalysis</i> , <b>32</b> , 2535, 2020.	3.223
32 H. S. Das, R. Das, P. K. Nandi, S.Biring, S. K. Maity, <i>Appl. Phys. A</i> , <b>127</b> , 225, 2021.	2.584
33 R. Sinha Roy, S. Ghosh, K. Hatua and P.K. Nandi, <i>J. Mol. Model.</i> , <b>27</b> , 74, 2021.	1.73

### Centre of Healthcare Science and Technology

Publication	Impact Factor
1 A. Chakraborty, A. Ghosh, A. Barui, <i>Journal of Raman Spectroscopy</i> , <b>203</b> , 13332, 2020.	3.13
2 N. Paul, R. Sarkar, R. Sarkar, A. Barui, S. Sarkar, <i>Journal of Chemical Sciences</i> , <b>132</b> , 44378, 2020.	1.54
3 A. Das, S. Adhikary, A. Roy Chowdhury, A. Barui, <i>Biomedical Materials</i> , <b>16</b> , 34102, 2021.	3.7
4 S. Sumita, A. Das, A. Barui, <i>Photochemistry and Photobiology</i> , <b>96</b> , 1283, 2020.	3.42
5 A. Mukhopadhyay, M. Rajput, A. Barui, S. S. Chatterjee, N. K. Pal, J. Chatterjee, R. Mukherjee, <i>Materials Science and Engineering: C</i> , <b>116</b> , 111218, 2020.	7.32
6 A. Das, P. Datta, A. Roy Chowdhury, A. Barui, <i>IET nanobiotechnology</i> , <b>14</b> , 870, 2020.	1.85
7 S. Agarwal, S. Saha, V. Krishna Balla, A. Pal, A. Barui, S. Bodhak, <i>Frontiers in Mechanical Engineering</i> , <b>6</b> , 90, 2020.	2.25

## Computer Science and Technology

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1 M. Goswami, M. Roychoudhury, J. Sarkar, B. Sen, B. K. Sikdar, Arabian Journal for Science and Engineering, <b>45</b> , 2663, 2020.	2.529
2 Md A.A.A. Aman, A. Sarkar, M. Dutt, A. Biswas, Theoretical Computer Science, <b>847</b> , 103, 2020.	0.827
3 S. Mondal, A. Biswas, A. Sarkar, Multimedia Tools and Applications, <b>44197</b> , 2021.	2.757
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Publication	Impact Factor
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9	M. Chowdhury and P.K. Paul, Arabian Journal of Geosciences, <b>14</b> , 2021.	1.827
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4. S. K. Tiwary, J. Pal, C. K. Chanda, Progress in Advanced Computing and Intelligent Engineering, Evaluation of the Applicability and Advantages of Application of Artificial Neural Network Based Scanning System for Grid Networks, Springer, Singapore, 231-243, 2020.

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## **Mechanical Engineering**

1. B.J. Hemrom, U. Rana and A. Ganguly, Lecture Notes in Mechanical Engineering, Enhancement of the Thermal Performance of a Parabolic Trough Collector with Cavity Receiver, Springer Nature Singapore Pte. Ltd., 363-373, 2021.

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1. A. Roy, A. Naskar, A. Ghosh, J. Adhikari, P. Saha, M. Ghosh, Encyclopedia of Materials: Plastics and Polymers, Hybrid plastics and natural materials, Elsevier Inc., 212-225, 2020.

## **Human Resource Management**

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1. S. Majumdar and J. Bhowal, Advances in Bioprocess Engineering and Technology, Lecture notes Bioengineering, Springer Nature, 265-276, 2021.
2. M. Maity, D. K. Bhattacharyya and J. Bhowal, Advances in Bioprocess Engineering and Technology, Lecture Notes Bioengineering, Springer Nature, 39-50, 2021.
3. R. Dutta, D. K. Bhattacharyya and J Bhowal, Advances in Bioprocess Engineering and Technology, Lecture Notes Bioengineering, Springer, 51-65, 2021.
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2. P. Chakraborty, A. Adak, S. S. Basak and A. Pramanik, A SURFACE DISINFECTION SYSTEM, 2021, application no 202131012559.

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3. M. Sengupta, AN ELECTRIC MOTOR APPARATUS FOR AND AN APPLICATION ON MECHANICAL LOADS UNDER OPERATIONAL MODES WARRANTING HIGH TORQUE AT LOW SPEEDS, 2021, application no: 137/1102/2017/KOL, Patent No.201731016598

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5. A. Pramanik , R. Mukherjee, AUTOMATED AMD DETECTION BY A NOVEL DEEP NEURAL NETWORK, 2020, Copyright Diary No. 7702/2021-CO/SW.

## Information Technology

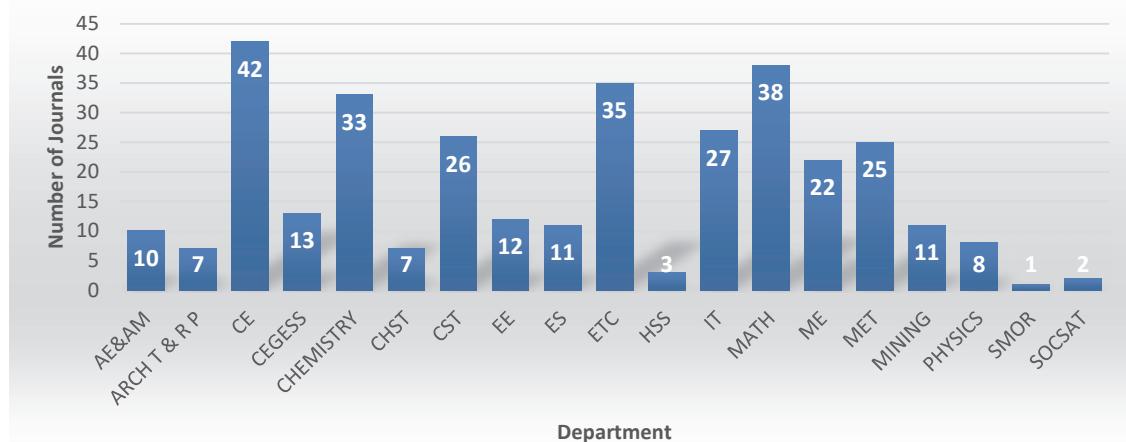
1. I. Banerjee, S.Shakhar, C. Ghorai,A. Sen, AN IOT BASED REAL TIME PORTABLE WATER QUALITY MONITORING SYSTEM, 2021, application no: 202031009277, Patent no: 356392

## Metallurgy and Materials Department

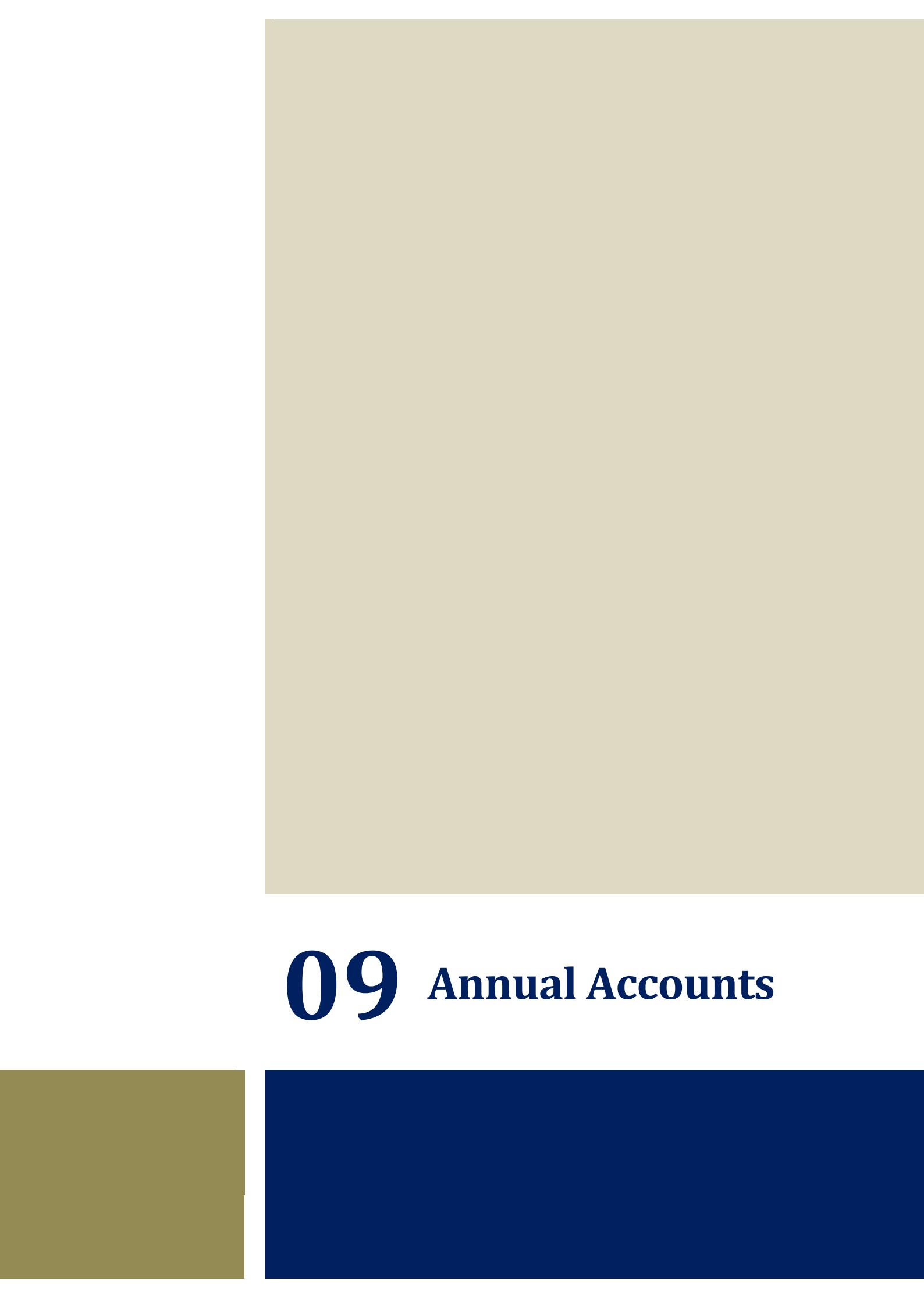
1. S. Das, S. Kundu, A.Haldar, TATA STEEL LTD ON DESIGNING OF A CONTINUOUSLY COOLED BAINITIC STEEL WITH MINIMUM 400 VHN (~1200 MPA UTS) AND 20% RETAINED AUSTENITE, 2020, application no: 736/KOL/2011, patent no: 347142.

<b>Total</b>	= 943.523	<b>Below 2</b>	110 (33%)
<b>Total number of journal papers</b>	= 333	<b>2 to 5</b>	175 (53%)
<b>Average</b>	= 943.523/333 = 2.8334024	<b>above 5</b>	48 (14%)

## Department wise publications







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1. BALANCE SHEET AS ON 31ST MARCH, 2021

Amount in Rupees

SOURCES OF FUNDS	Schedule	Current Year	Previous Year
CORPUS / CAPITAL FUND	1	2,485,613,429	2,347,320,330
DESIGNATED / EARMARKED / ENDOWMENT FUNDS	2	875,184,999	799,061,207
CURRENT LIABILITIES & PROVISIONS	3	508,546,692	506,849,213
<b>TOTAL</b>		<b>3,869,345,120</b>	<b>3,653,230,751</b>

APPLICATION OF FUNDS	Schedule	Current Year	Previous Year
FIXED ASSETS	4	1,378,883,362	1,440,066,183
- Tangible Assets		1,347,465,596	-
- Capital Workin Progress		-	
- Intangible Assets		31,417,767	-
INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS	5	722,902,442	718,141,219
- Long Term		424,239,093	
- Short Term		298,663,349	
INVESTMENTS - OTHERS	6	13,929,320	13,407,756
CURRENTASSETS	7	1,532,693,467	1,414,732,594
LOANS, ADVANCES & DEPOSITS	8	220,936,528	66,882,998
<b>TOTAL</b>		<b>3,869,345,120</b>	<b>3,653,230,751</b>

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Dy.Registrar(Finance)

Registrar

Director

(D. Bandyopadhyay)  
 Proprietor  
 M. No.- 057861  
 Debasis Bandyopadhyay & Co.  
 Chartered Accountants

**2. INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2021**

Amount in Rupees

Particulars	Schedule	Current Year	Previous Year
<b>INCOME</b>			
Academic Receipts Grants	9	171,600,803	219,863,725
/ Subsidies Income from	10	1,311,026,092	1,343,301,977
Investments Interest	11	6,592,168	3,160,590
earned	12	21,990,992	27,010,053
Other Income	13	9,894,758	26,167,684
Prior Period Income	14	1,063,475	13,122,569
<b>TOTAL (A)</b>		1,522,168,288	1,632,626,597
<b>EXPENDITURE</b>			
Staff Payments & Benefits (Establishment expenses)	15	1,002,152,437	1,015,332,673
Academic Expenses	16	195,563,205	203,249,284
Administrative Expenses	17	86,884,221	119,129,352
Transportation Expenses	18	1,048,458	1,074,077
Repairing & Maintenance	19	35,046,480	35,202,088
Depreciation	4	163,567,455	157,984,283
Finance Costs Other	20	20,304	218,790
Expenses	21	655	212,798
Prior Period Expenses	22	1,237,931	2,755,082
<b>TOTAL (B)</b>		1,485,521,146	1,535,158,426
<b>Balance being excess of Income over Expenditure (A-B)</b>		36,647,142	97,468,170
Transfer to / from Designated Fund			
Building fund			
Others (specify)			
<b>Balance being Surplus/(Deficit) carried to Capital Fund</b>		36,647,142	97,468,170

Significant Accounting Policies	23
Contingent Liabilities and Notes to Accounts	24

Dy. Registrar (Finance)

Registrar

Director

D.Bandyopadhy  
a) Proprietor  
M. No.- 057861  
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Co. Chartered Accountant

3 RECEIPTS AND PAYMENTS ACCOUNTS FOR THE YEAR ENDED 31ST MARCH 2021

	RECEIPTS	CURRENT YEAR	PREVIOUS YEAR	PAYMENTS	CURRENT YEAR	PREVIOUS YEAR
I Opening Balances				I Expenses		
a) Cash Balances				a) Establishment Expenses	1,004,284,652	1,019,685,233
b) Bank Balances				b) Academic Expenses	195,451,186	199,786,791
i. in Current Accounts	145,373,022	92,395,599		c) Administrative Expenses	89,574,847	111,514,094
ii. Savings Accounts	896,555,308	487,052,850		d) Transportation Expenses	1,048,458	1,074,077
c) Cheques in hand	-	-		e) Repairs & Maintenance	36,474,580	34,270,699
				f) Prior Period Expenses	-	-
				g) Other Expenses	17,873	218,788
II Grants Received				II Payments against Earmarked/Endowment Funds	384,323	1,724,709
a) From Govt. of India	1,494,225,000	1,702,700,000				
b) From State Govt.	-	-		III Payments againsts Sponsored/Scheme	211,759,409	300,925,439
c) From UGC-Non Plan	-	-				
c) Form Other Sources (Details)	-	-		IV Payments against Sponsored/Fellowship/Scholarship	26,104,666	41,987,941
III Academic Receipts	177,690,472	218,453,226		V Investments and Deposits made		
				a) Out of Earmarked/Endowments Funds	5,601,398	6,129,396
IV Receipts against Earmarked/Endowment Funds	33,963,449	13,406,971		b) Out of Own Funds (Investments-Others)		
V Receipts againsts Sponsored/Scheme	229,418,249	309,639,723		VI Term Deposits with Schedule Banks	-	-
VI Receipts against Sponsored/Fellowship/Scholarship	22,919,079	40,557,149		VII Expenditure on Fixed Assets and Capital Works-in-progress		
				a) Fixed Assets	104,399,173	182,665,086
VII Income on Investments from				b) Capital Works-in-Progress		
a) Earmarked/Endowment Funds	16,389,846	30,534,266				
b) Other Investments	1,946	34,055		VIII Other Payments including Statutory Payments	332,064,317	268,307,102

..... Contd.

RECEIPTS	CURRENT YEAR	PREVIOUS YEAR	PAYMENTS	CURRENT YEAR	PREVIOUS YEAR
VIII Interest Received on a) Bank Deposits b) Loans & Advances c) Savings Bank Accounts d) Provident Fund	1,315,361 - 22,381,427 -	1,209,375 - 27,010,053 -	IX Refunds of Grants X Deposit and Advances XI Other Payments (including Finance Cost)	- 149,342,572 -	- 50,647,644
IX Investments Encashed	171,835	-	XII Other Payments (including prior period /write off)	-	-
X Other Income (Including Prior Period Income)	9,782,738	17,884,392	XIII Adjustment of Howrah Treasury PF a/c	-	-
XI Deposit and Advances	39,246,030	26,850,357	XIV Closing Balances a) Cash Balances b) Bank Balances	- - -	-
XII Miscellaneous Receipts including Statutory Receipts	316,317,206	293,137,313	i. in Current Accounts	186,481,076	145,373,022
XIII Any Other Receipts (Tuition Fees Received, to be refunded)	16,789,558	-	ii. Savings Accounts	1,079,551,996	896,555,308
			c) Cheques in hand	-	-
				3,422,540,526	3,260,865,329
					3,422,540,526
					3,260,865,329

Dy. Registrar (Finance)

Registrar

Director

(D. Bandyopadhyay) Proprietor  
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**4. SCHEDULE-1 CORPUS FUND / CAPITAL FUND**

Particulars	Current Year	Previous Year
Balance at the beginning of the year	2,347,320,330	2,431,328,059
Add: Contributions towards Corpus / Capital Fund	-	-
Add: Grants from UGC, Government of India and State Government to the extent utilized for capital expenditure	83,463,749	208,337,632
Add: Assets Purchased out of Earmarked Funds\Assets Purchased out of Sponsored Projects, where ownership vests in the institutions	17,383,711	62,559,692
Add: Assets Donated / Gifts received	-	-
Add: Other Additions / (Deletions)	1,790,881	(452,373,222)
Add: Excess of Income over Expenditure transferred from the Income & Expenditure Account	36,647,142	97,468,170
<b>Total</b>	<b>2,486,605,814</b>	<b>2,347,320,330</b>
Deduct : Adjustment of excess debit balances under various heads	992,385	-
Deduct : Deficit transferred from the Income & Expenditure Account	-	-
<b>Balance at the end of the year</b>	<b>2,485,613,429</b>	<b>2,347,320,330</b>

**5. SCHEDULE - 2 DESIGNATED / EARMARKED / ENDOWMENT FUNDS**

	A.	Particulars	B. Utilization / Expenditure towards objective funds						Closing balance at the year end (A-B)					
			a) Opening balance	b) Additions during the year	c) Income from investments made of the funds	d) Accrued interest on investments/ advances	e) Interest on Savings Bank a/c	f) Other additions (specify nature)	Total (A)	i) Capital Expenditure	ii) Revenue Expenditure	iii) Transferred to Schedule 3(a)	Total (B)	
1	Fund - NSS	311,152	-	-	-	-	11,885	-	323,037	-	18	-	18	323,039
2	Corpus Fund - Future Development	474,679,317	-	-	21,893,335	-	-	-	496,572,652	-	-	-	-	496,572,652
3	Institutional Development Fund	196,690,918	18,941,189	-	14,077,459	-	-	-	229,709,566	-	120,671	-	120,671	229,588,895
4	Students' Welfare Fund	227,870	-	-	-	31,104	-	-	258,974	-	7,756	-	7,756	251,218
5	Corpus Fund - alc Teqip	15,414,108	-	-	699,384	103,442	-	-	16,216,944	-	-	-	-	16,216,944
6	Faculty Development	753,219	-	-	38,091	985	-	-	792,295	-	-	-	-	792,295
7	Equipment Replacement	723,429	-	-	-	985	-	-	724,414	-	-	-	-	724,414
8	Maintenance Fund - alc Teqip	19,545,789	-	-	1,129,279	377	-	-	20,675,445	-	-	-	-	20,675,445
9	Depreciation Fund - alc Teqip	8,004,883	-	-	461,012	2,752	-	-	8,468,647	-	-	-	-	8,468,647
10	Staff Development	9,169,266	-	-	528,493	212	-	-	9,697,971	-	-	-	-	9,697,971
11	Digital Education Hub	-	10,000,000	-	-	-	-	-	10,000,000	-	29,032	-	29,032	9,970,9668
12	Endowment Funds	73,541,256	5,000,000	-	2,985,051	580,734	-	82,107,041	-	204,500	-	204,500	81,902,541	
Current Year	799,061,207	33,941,189	-	41,812,104	732,476	-	875,546,976	-	361,977	-	361,977	875,184,999		
Previous Year	277,500,576	465,661,580	-	60,949,688	518,586	118,613	804,749,043	-	5,687,836	-	5,687,836	799,061,207		

**6. SCHEDULE-2A ENDOWMENT FUNDS**

Sub-schedule to support the figures in the column "Endowment Funds" in the schedule "Earmarked / Endowment Funds" forming part of the Balance Sheet

Sr.No.	Name of the Endowment	Opening Balance		Additions during the year		Total	Expenditure on the object during the year	Endowment	Accumulated Interest	Total (10+11)
		Endowment	Accumulated Interest	Endowment	Interest					
1	2	3	4	5	6	7	8	9	10	11
1	Von Newman Scholarship Fund	53,747	23,729		3,225	53,747	26,954		53,747	26,954
2	Dr. S. P. Brambha Memorial Merit Scholarship Fund	106,895	47,189		4,890	106,895	52,079		106,895	52,079
3	Prabir Sengupta Memorial Prize Fund	7,599	5,309		784	7,599	6,093		7,599	6,093
4	Renu Chakraborty V. L. Fund	55,737	25,810		3,355	55,737	29,165		55,737	29,165
5	Dr. Fazlur Kader Memorial Scholarship Fund	115,629	82,284		11,436	115,629	93,720		115,629	93,720
6	J. N. Neogi Students' Benefit Fund	72,248	51,414		7,840	72,248	59,254		72,248	59,254
7	Memorial Prize Fund	15,407	10,964		1,672	15,407	12,636		15,407	12,636
8	Dr. B. N. Dey Scholarship Fund	37,519	26,697		4,071	37,519	30,768		37,519	30,768
9	Kunja Kusum Scholarship Fund	77,444	34,190		3,543	77,444	37,733		77,444	37,733
10	Sanakanta Nirmalya Basini Biswas Gold Fund	20,087	9,296		1,212	20,087	10,508		20,087	10,508
11	Prof. N. N. Sen Memorial Scholarship Fund	39,432	17,412		2,366	39,432	19,778		39,432	19,778
12	Acharya P. C. Roy Scholarship	91,587	40,426		4,235	91,587	44,661		91,587	44,661
13	Ramila Nandy & Ganoda Sundari Nandy Nandy	46,928	20,720		2,145	46,928	22,865		46,928	22,865
14	Lilullah Iron Works Ltd. Scholarship	46,928	21,485		2,818	46,928	24,303		46,928	24,303
15	R & K Ahmed Merit Scholarship	56,769	25,061		3,407	56,769	28,468		56,769	28,468
16	The President of India Gold Medal	56,769	104		3,407	56,769	3,511		56,769	3,511
17	Alumni Donation Seminar Series	352,521	237,848	-	34,313	352,521	272,161		352,521	272,161
18	Jogesh Chandra Banerjee Memorial School	478,376	211,184		28,695	478,376	239,879		478,376	239,879
19	Anir Burnwal Memorial Merit cum Means	107,110	46,822		6,588	107,110	53,410		107,110	53,410
										160,520

Sr No.	Name of the Endowment	Opening Balance		Additions during the year		Total	Expenditure on the object during the year	Closing Balance			
		Endowment	Accumulated Interest	Endowment	Interest			Endowment (3+5)	Accumulated Interest (4+6)	Endowment	Accumulated Interest
20	Jaya Smriti Puroskar (BESUS)	24,189	7,935	-	2,241	24,189	10,176	-	24,189	10,176	34,364
21	Jaya Smriti Puroskar	21,374	13,126	-	2,038	21,374	15,164	-	21,374	15,164	36,538
22	BEC (55) Scholarship Fund	281,033	204,013	-	36,954	281,033	240,967	-	281,033	240,967	532,000
23	BEC Scholarship	100,592	(34,021)	-	28,847	100,592	(5,174)	-	100,592	(5,174)	95,418
24	BECA - 1964	230,040	162,188	-	24,874	230,040	187,061	-	230,040	187,061	417,101
25	Prof. S. C. Dasgupta Gold Medal	143,098	64,532	-	14,290	143,098	78,822	-	143,098	78,822	221,920
26	Siddhananada Memorial Lecture	53,875	54,932	-	1,812	53,875	56,744	-	53,875	56,744	110,619
27	BESU Endowment Fund	5,000,000	2,666,635	-	450,712	5,000,000	3,117,347	-	5,000,000	3,117,347	8,117,347
28	Prabodh Chandra Mitra Scholarship Fund	153,625	16,054	-	1,553	153,625	17,607	-	153,625	17,607	171,232
29	Dhalbait Ghosh Memorial Scholarship	433,732	294,972	-	43,302	433,732	338,274	-	433,732	338,274	772,006
30	Prof. P. C. Mitra Memorial Award	51,458	(12,516)	-	5,347	51,458	(7,169)	-	51,458	(7,169)	44,290
31	Bijoy Ashu Chair Professor Fund	10,048,394	4,956,230	-	765,077	10,048,394	5,721,307	-	10,048,394	5,721,307	15,769,701
32	Prabodh Kumar Chatterjee Fund	194,000	38,631	-	7,700	194,000	46,331	-	194,000	46,331	240,331
33	Rai Sahib Amulya Chandra Mitra Endowment	300,000	89,000	-	22,759	300,000	111,759	-	300,000	111,759	411,759
34	Rai Sahib Amulya Chandra Mitra Endowment	200,000	174,134	-	9,240	200,000	183,374	-	200,000	183,374	383,374
35	S. C. Dasgupta Memorial Fund	1,100,000	983,064	-	121,286	1,100,000	1,104,350	-	1,100,000	1,104,350	2,204,350
36	Prabodh Kumar Chatterjee Fund	50,000	88,870	-	3,008	50,000	9,878	-	50,000	9,878	141,878
37	Madhusudan Bhattacharjee Memorial Fund	215,000	12,250	-	12,032	215,000	21,282	12,000	215,000	12,282	227,282
38	B. K. Bose Lecture Fund	225,000	56,989	-		225,000	56,989	-	225,000	56,989	281,989
39	Students Reward Programme Fund	1,650,000	167,215	-	86,066	1,650,000	255,281	-	1,650,000	253,281	1,903,281
40	Sougata Mukherjee Memo. Award for Exc.	509,507	118,510	-	28,732	509,507	147,242	28,000	509,507	119,242	628,749
41	Suhás Choudry Swimming Excellence Priz	122,132	3,916	-	7,641	122,132	11,557		122,132	11,557	133,689
42	Ujjal Dasgupta Scholarship Corpus Fund	1,381,590	184,860	-	78,796	1,361,590	263,656	117,000	1,361,590	146,656	1,508,246
43	GAABESU Admission Grant - 2	582,400	214,032	-	36,409	582,400	250,541	-	582,400	250,441	832,841
44	Prof A K Seal Gold Medal	100,000	18,025	-	8,448	100,000	26,473	-	100,000	26,473	126,473

Sr. No.	Name of the Endowment	Opening Balance Endowment	Additions during the year Accumulated Interest	Total Endowment	Interest (3+5)	Accumulated Interest (4+6)	Expenditure on the object during the year	Endowment on Expenditure	Accumulated Interest	Closing Balance Total (10+11)	
45	BEC Prize	207,870	28,380	6,707	207,870	35,087	-	207,870	35,087	242,957	
46	TATA Steel Chair Professor	818,006	(98,926)		818,006	(98,926)	-	818,006	(98,926)	719,080	
47	Besus Foundation (GAAEBESU)	8,066,380	5,831,342	624,041	8,066,380	6,455,383	30,000	8,066,380	6,425,383	14,491,763	
48	K K Pal Chaudhuri Arch	50,000	34,138	5,347	50,000	39,485	-	50,000	39,485	89,485	
49	Prof. P. C. Mitra Memorial Award - 2	100,000	55,667	10,516	100,000	66,183	-	100,000	66,183	166,183	
50	Donation-Alumni	100,000	25,000	-	100,000	25,000	-	100,000	25,000	125,000	
51	Amiya Basu Endowment Fund Arun Ch Mitra, Ganesh Mitra, Sindhubala Mitra Memorial Fund	6,444,262	641,823	302,411	6,444,262	944,234	-	6,444,262	944,234	7,388,496	
52		200,000	(49,828)	-	200,000	(49,828)	-	200,000	(49,828)	150,172	
53	Alpona Banerjee	9,902,719	1,245,396	516,432	9,902,719	1,761,828	-	9,902,719	1,761,828	11,664,547	
54	Aweek Guha Memorial Gold	115,000	(33,450)		115,000	(33,450)	-	115,000	(33,450)	81,550	
55	Provat Chandra Neogi	2,700,000	176,775	150,253	2,700,000	327,028	-	2,700,000	327,028	3,027,028	
56	Tarun Kanti Ghosh Memorial	347,532	10,426	20,912	347,532	31,338	17,500	347,532	13,838	361,370	
57	Sayantan Biswas Memorial	160,000	(8,545)	-	160,000	(8,545)	-	160,000	(8,545)	151,455	
58	Ganesh Ch. Mukherjee Memorial Fund	-	-	5,000,000	5,000,000	-	-	5,000,000	-	5,000,000	
		-	-	-	-	-	-	-	-	-	
	<b>Total</b>	<b>54,201,540</b>	<b>19,339,717</b>	<b>5,000,000</b>	<b>3,565,785</b>	<b>59,201,540</b>	<b>22,905,502</b>	<b>204,500</b>	<b>59,201,540</b>	<b>22,701,002</b>	<b>81,902,542</b>

**7. SCHEDULE-3 CURRENT LIABILITIES & PROVISIONS**

		Current Year	Previous Year
<b>A</b>	<b>CURRENT LIABILITIES</b>		
1.	Deposits from staff	-	-
2.	Deposit from students	16,283,400	13,376,233
3.	Sundry Creditors		
a)	For Goods and Services		
b)	Others		
4.	Deposit - Others (including EMD, Security Deposit)	2,730,043	2,586,615
5.	Statutory Liabilities (TDS, WC Tax, CPF, GIS, NPS)		
a)	Overdue		
b)	Others	5,934,649	22,035,925
6.	Other Current Liabilities		
a)	Salaries	-	-
b)	Receipts against sponsored projects	433,572,409	412,909,016
c)	Receipts against sponsored fellowships and scholarships	22,355,683	22,060,012
d)	Unutilized Grants	46,851	46,851
e)	Grants in advance		
f)	Other funds		
g)	Audit Fees	800,000	600,000
h)	Other liabilities [Miscellaneous Recoveries]	2,377,824	3,264,402
i)	Other liabilities [Professional Charges]	259,600	236,000
j)	Other liabilities [Electricity Charges]	1,824,592	2,137,492
k)	Other liabilities [E-Journal / E-Books]	-	15,334,301
l)	Other liabilities [Manpower Hiring]	2,936,058	3,122,177
m)	Other liabilities [Security Service]	2,636,025	5,051,678
n)	Other liabilities [PWD/CPWD]	-	2,309,452
n)	Other liabilities [Miscellaneous Receipts - suspense/sources to be traced]	-	1,779,059
o)	Other liabilities [Tuition Fees refundable]	16,789,558	-
<b>Total (A)</b>		<b>508,546,692</b>	<b>506,849,213</b>
<b>B</b>	<b>PROVISIONS</b>		
1.	For taxation		
2.	Gratuity		
3.	Superannuation Fund		
4.	Accumulated Leave Encashment		
5.	Trade Warranties / Claims		
6.	Others (Specify)		
<b>Total (A)</b>		<b>-</b>	<b>-</b>
<b>Total (A + B)</b>		<b>508,546,692</b>	<b>506,849,213</b>

**8. SCHEDULE -3(a) SPONSORED PROJECTS**

Sr. No.	Name of the Project	Opening Balance		Receipts / Recoveries during the year		Total	Expenditure during the year	Credit	Closing Balance
		Credit	Debit	Debit	Credit				
1	2	3	4	5	6	7	8	9	
1	Research Project Accounts	375,313,413	-	125,478,314	500,791,727	119,228,452	381,563,275	-	
2	Consultancy Fund	31,037,756	-	108,200,901	139,298,657	93,651,330	45,647,327	-	
3	Testing Fees Fund	6,497,846	-	229,548	6,727,394	365,588	6,361,806	-	
		-	-	-	-	-	-	-	
	<b>Total</b>	<b>412,909,016</b>	<b>-</b>	<b>233,908,763</b>	<b>646,817,779</b>	<b>213,245,370</b>	<b>433,572,409</b>	<b>-</b>	

**9. SCHEDULE -3(b) SPONSORED FELLOWSHIPS AND SCHOLARSHIPS**

Sr. No.	Name of Sponsor	Opening Balance		Transactions during the year		Closing Balance	
		Credit	Debit	Credit	Debit	Credit	Debit
1	2	3	4	5	6	7	8
1	CSIR - Fellowship and Contingency	642,618	-	265,729	214,534	693,813	-
2	Inspire Faculty -DST	-	(1,459,805)	4,613,374	5,305,100	-	(2,151,531)
3	Inspire Fellowship -DST	7,183,035	-	12,956,578	10,134,677	10,004,936	-
4	QIP Contingency	15,000	-	-	-	15,000	-
5	National Scholar Science - ST	25,600	-	-	25,600	-	-
6	UGC Fellowship Post Doctoral	760,058	-	-	-	760,058	-
7	UGC Raman Fellowship Post Doctoral	4,302,068	-	-	-	4,302,068	-
8	Other Miscellaneous Grant - DST	365,217	-	185,800	258,403	292,614	-
9	Other Misc. Receipts	1,725,021	-	2,220,230	888,740	3,056,511	-
10	Faculty Recharge Program / BSR Research Fellowship (UGC)	-	(7,893,519)	-	3,828,575	-	(11,722,094)
11	INSA Scientist (Others)	157	-	99,843	56,433	43,567	-
12	UGC Research Awardee	172,233	-	-	172,233	-	-
13	Visvesvaraya Phd Fellowship	3,245,780	-	2,530,684	4,748,443	1,028,021	-
14	UGC D S Kolthari Fellowship	777,846	-	-	-	777,846	-
15	GIAN Course	868,083	-	16,051	737,810	146,324	-
16	Stipend - Means cum Merit Scholarship	-	-	30,790	-	30,790	-
17	Other Miscellaneous Grant - State	75,000	-	-	75,000	-	-
18	NREF	1,204,136	-	-	-	1,204,136	-
19	Post Doctoral Fellow (DST-SERB)	698,161	-	-	698,161	-	-
	<b>Total</b>	<b>22,060,012</b>	<b>(9,353,324)</b>	<b>22,919,079</b>	<b>27,143,709</b>	<b>22,355,683</b>	<b>(13,873,625)</b>

**10. SCHEDULE -3(c) UNUTILIZED GRANTS FROM UGC, GOVERNMENT OF INDIA AND STATE GOVERNMENTS**

		Current Year	Previous Year
<b>A Plan Grants : Government of India</b>			
Balance b/f		(351,077,405)	(152,137,796)
Add : Grants during the year		1,494,225,000	1,352,700,000
Add : Interest earned on grant		390,434	
	<b>Total (a)</b>	<b>1,143,538,029</b>	<b>1,200,562,204</b>
Less : Refunds		-	-
Less : Utilized for Revenue Expenditure		1,311,026,092	1,343,301,977
Less : Utilized for Capital Expenditure		83,463,749	208,337,632
	<b>Total (b)</b>	<b>1,394,469,841</b>	<b>1,551,639,609</b>
<b>Unutilized carried forward (a-b)</b>	<b>Transferred to Schedule 7, being excess expenditure over sanctioned amount</b>	<b>(250,951,812)</b>	<b>(351,077,405)</b>

Note : The Institute had deposited Rs. 13.33 crore with CPWD, which has been shown under Schedule 8 Sl 3(a); considering the same as grant actually utilized, the deficit would go up to Rs. 38,42,85,459

<b>B UGC Grants - Plan</b>						
Balance b/f						
Add : Receipts during the year						
					<b>Total (c)</b>	
Less : Refunds						
Less : Utilized for Revenue						
Expenditure Less : Utilized for						
Capital Expenditure						
					<b>Total (d)</b>	
<b>Unutilized carried forward (c-d)</b>						
<b>c UGC Grants - Non Plan</b>						
Balance b/f						
Add : Receipts during the year						
					<b>Total (e)</b>	
Less : Refunds						
Less : Utilized for Revenue Expenditure						
Less : Utilized for Capital Expenditure						
					<b>Total (f)</b>	
<b>Unutilized carried forward (e-f)</b>						

<b>D Grants from State Government</b>				
Balance b/f	46,851		46,851	46,851
Add : Receipts during the year	-		-	-
		<b>Total (g)</b>	46,851	46,851
Less : Refunds			-	-
Less : Utilized for Revenue Expenditure			-	-
Less : Utilized for Capital Expenditure			-	-
		<b>Total (h)</b>	-	-
<b>Unutilized carried forward (g-h)</b>			46,851	46,851
<b>Grand Total (A+B+C+D)</b>			(250,904,961)	(351,030,554)
<i>Deficit amount as per Part A transferred to Schedule 7</i>				
			(250,951,812)	(351,077,405)
		<b>Grand Total (B+C+D)</b>		
			<b>46,851</b>	<b>46,851</b>

**11. SCHEDULE - 4 FIXED ASSETS**

S.No.	Assets Heads	Gross Block			Depreciation			Net Block			
		Opening Balance	Additions	Closing Balance	Rate of Depreciation	Opening Balance	Depreciation for the year	Deduction / Adjustments	Total Depreciation	31/03/2020	31/03/2021
1	Land [leasehold]	385,170	-	385,170	-	-	-	-	-	385,170	385,170
2	Site Development	310,181	-	310,181	-	-	-	-	-	310,181	310,181
3	Buildings	571,431,029	6,635,858	578,066,887	2%	57,816,488	11,561,338	73,723	69,451,548	513,614,541	508,615,338
4	Roads and Bridges	902,405	-	902,405	2%	67,138	18,048	-	85,186	835,267	817,219
5	Tubewells & Water Supply	13,796,860	-	13,796,860	2%	719,546	275,937	1,895	997,478	13,077,214	12,799,392
6	Sewerage & Drainage	-	-	-	-	-	-	-	-	-	-
7	Electrical Installation and Equipments	173,498,913	561,882	174,060,795	5%	35,763,567	8,703,040	273,721	44,740,328	137,735,346	129,320,467
8	Plant & Machinery	159,011,606	-	159,011,606	5%	47,703,482	7,940,580	-	55,654,062	111,308,125	103,357,544
9	Scientific & Laboratory Equipments	530,222,463	41,090,376	571,312,839	8%	136,802,791	45,705,027	-	182,507,818	393,419,672	388,805,021
10	Office Equipments	48,343,981	3,802,872	52,146,853	7.5%	8,986,795	3,911,014	-	12,887,809	39,357,186	39,249,044
11	Audio Visual Equipments	880,205	225,845	1,106,050	7.5%	191,516	82,954	-	274,469	688,689	831,581
12	Computers & Peripherals	154,857,171	10,082,285	164,939,556	20%	93,400,590	23,842,475	(1,062,322)	116,180,744	61,456,581	48,758,713
13	Furniture, Fixtures & Fittings	106,193,713	6,666,288	112,860,011	7.5%	34,456,508	8,464,501	-	42,921,009	71,737,205	69,939,003
14	Vehicles	375,838	-	375,838	10%	225,503	37,584	-	263,087	150,335	112,752
15	Library Books & Scientific Journals	107,632,131	57,231	107,689,362	10%	52,757,389	10,768,936	(1,153)	63,525,183	54,874,732	44,164,180
16	Small Value Assets	408,815	-	408,815	-	408,812	-	-	408,812	3	3
	<b>Total (A)</b>	<b>1,868,250,482</b>	<b>69,122,647</b>	<b>1,937,373,129</b>		<b>469,300,235</b>	<b>121,321,434</b>	<b>(714,136)</b>	<b>589,907,534</b>	<b>1,347,465,596</b>	
17	Capital Work In Progress (B)	-	-	-	-	-	-	-	-	-	-
S.No.	Intangible Assets	Opening Balance	Additions	Closing Balance	Rate of Depreciation	Amortization Opening Balance	Amortization for the year	Deduction / Adjustments	Total Amortization	31/03/2020	31/03/2021
18	Computer Software	32,116,879	25,000	32,141,279	40%	22,047,901	7,060,016	-	29,107,918	10,068,978	3,033,961
19	E-Journals	107,044,460	32,522,851	139,567,311	40%	75,997,501	35,186,004	-	111,183,505	31,046,958	28,363,895
20	Patents	-	-	-	-	-	-	-	-	-	-
	<b>Total (C)</b>	<b>139,161,339</b>	<b>32,547,851</b>	<b>171,709,190</b>		<b>98,045,402</b>	<b>42,246,020</b>		<b>140,291,423</b>	<b>41,115,936</b>	<b>31,417,767</b>
	<b>Grand Total (A+B+C)</b>	<b>2,007,411,821</b>	<b>101,670,498</b>	<b>2,108,082,319</b>		<b>567,345,538</b>	<b>163,567,455</b>	<b>(714,136)</b>	<b>730,198,956</b>	<b>1,440,056,193</b>	<b>1,378,883,342</b>

## 12. SCHEDULE - 4A PLAN

S.No.	Assets Heads	Gross Block			Rate of Depreciation	Opening Balance	Closing Balance	Depreciation for the year	Deduction / Adjustments	Total Depreciation	31/03/2020	31/03/2021	Net Block
		Opening Balance	Additions	Deductions									
1	Land [leasehold]	385,170	-	-	385,170	-	-	-	-	-	385,170	385,170	
2	Site Development	-	-	-	-	-	-	-	-	-	-	-	
3	Buildings	540,301,267	6,635,858	-	546,936,125	2%	55,399,749	10,938,722	-	66,338,472	484,900,517	480,597,953	
4	Roads and Bridges	902,405	-	-	902,405	2%	67,138	18,048	-	85,186	835,267	817,219	
5	Tube wells & Water Supply	12,996,860	-	-	12,996,860	2%	657,540	259,937	-	917,477	12,339,320	12,079,383	
6	Sewerage & Drainage	-	-	-	-	2%	-	-	-	-	-	-	
7	Electrical Installation and Equipments	150,369,907	561,882	-	150,931,789	5%	31,002,775	7,546,589	-	38,549,364	119,367,132	112,382,125	
8	Plant & Machinery	158,406,181	-	-	158,406,181	5%	47,521,854	7,920,309	-	55,442,164	110,884,327	102,964,018	
9	Scientific & Laboratory Equipments	206,791,538	23,616,520	-	230,407,058	8%	45,813,339	18,432,565	-	64,245,904	160,977,199	166,161,154	
10	Office Equipments	47,475,611	3,802,872	-	51,278,483	7.5%	8,721,113	3,845,886	-	12,566,999	38,754,498	38,711,484	
11	Audio Visual Equipments	880,205	225,845	-	1,106,050	7.5%	191,516	82,954	-	274,469	688,689	831,581	
12	Computers & Peripherals	136,237,145	9,516,811	-	145,753,956	20%	78,471,553	21,566,459	-	100,038,013	57,795,502	45,715,943	
13	Furniture, Fixtures & Fittings	95,504,815	6,566,110	-	102,060,925	7.5%	30,395,278	7,654,569	-	38,049,848	65,109,537	64,011,078	
14	Vehicles	375,838	-	-	375,838	10%	225,503	37,584	-	263,087	150,335	112,752	
15	Library Books & Scientific Journals	106,246,793	-	-	106,246,793	10%	52,190,061	10,624,679	-	62,814,741	54,056,732	43,432,053	
16	Small Value Assets	408,815	-	-	408,815	100%	408,812	-	-	408,812	3	3	
	Total (A)	1,457,280,551	50,915,898	-	1,508,196,449	-	351,066,232	88,928,303	-	439,984,535	1,106,214,319	1,068,201,914	
17	Capital Work in Progress (B)	-	-	-	-	-	-	-	-	-	-	-	

S.No	Intangible Assets	Opening Balance			Rate of Depreciation	Opening Balance	Amortization for the year	Deduction / Adjustments	Total Amortization	31/03/2020	31/03/2021	Net Value
		Additions	Deductions	Closing Balance								
18	Computer Software	31,953,154	25,000	31,978,154	40%	21,884,177	7,060,016	-	28,644,194	10,068,977	3,033,960	
19	E-Journals	107,044,460	32,522,851	139,567,311	40%	75,997,501	35,186,004	-	111,183,505	31,046,958	28,383,805	
20	Patents	-	-	-	-	-	-	-	-	-	-	
	Total (C)	138,997,614	32,547,851	171,545,465	-	97,881,678	42,246,020	-	140,127,699	41,115,935	31,417,766	
	Grand Total (A + B + C)	1,596,278,165	83,483,749	-	1,679,741,914	448,947,911	131,174,323	-	580,122,234	1,147,330,254	1,099,619,680	

**13. SCHEDULE -4B NON PLAN**

S.No.	Assets Heads	Gross Block			Depreciation			Net Block		31/03/2020	31/03/2021	
		Opening Balance	Additions	Deductions	Closing Balance	Rate of Depreciation	Opening Balance	Depreciation for the year	Deduction / Adjustments	Total Depreciation		
1	Land	-	-	-	-	-	-	-	-	-	-	
2	Site Development	-	-	-	-	-	-	-	-	-	-	
3	Buildings	31,130,762	-	-	31,130,762	2%	2,416,738	622,615	73,723	3,113,077	28,714,024	28,017,685
4	Roads and Bridges	-	-	-	-	-	-	-	-	-	-	
5	Tubewells & Water Supply	800,000	-	-	800,000	2%	62,105	16,000	1,895	80,000	737,955	720,000
6	Sewerage & Drainage	-	-	-	-	-	-	-	-	-	-	
7	Electrical Installation and Equipments	18,869,238	-	-	18,869,238	5%	3,500,126	943,462	273,721	4,717,309	15,369,112	14,151,929
8	Plant & Machinery	-	-	-	-	-	-	-	-	-	-	
9	Scientific & Laboratory Equipments	-	-	-	-	-	-	-	-	-	-	
10	Office Equipments	-	-	-	-	-	-	-	-	-	-	
11	Audio Visual Equipments	-	-	-	-	-	-	-	-	-	-	
12	Computers & Peripherals	-	-	-	-	-	-	-	-	-	-	
13	Furniture, Fixtures & Fittings	-	-	-	-	-	-	-	-	-	-	
14	Vehicles	-	-	-	-	-	-	-	-	-	-	
15	Library Books & Scientific Journals	-	-	-	-	-	-	-	-	-	-	
16	Small Value Assets	-	-	-	-	-	-	-	-	-	-	
	<b>Total (A)</b>	<b>50,800,000</b>	-	-	<b>50,800,000</b>	-	<b>5,978,970</b>	<b>1,582,077</b>	<b>349,339</b>	<b>7,910,386</b>	<b>44,821,030</b>	<b>42,889,614</b>
17	Capital Work in Progress (B)	-	-	-	-	-	-	-	-	-	-	
S.No.	Intangible Assets	Opening Balance	Additions	Deductions	Closing Balance	Rate of Depreciation	Amortization	Opening Balance	Amortization for the year	Deduction / Adjustments	Total Amortization	Net Value
18	Computer Software	-	-	-	-	-	-	-	-	-	-	
19	E-journals	-	-	-	-	-	-	-	-	-	-	
20	Patents	-	-	-	-	-	-	-	-	-	-	
	<b>Total (C)</b>	-	-	-	-	-	-	-	-	-	-	
	<b>Grand Total (A + B +C)</b>	<b>50,800,000</b>	-	-	<b>50,800,000</b>	-	<b>5,978,970</b>	<b>1,582,077</b>	<b>349,339</b>	<b>7,910,386</b>	<b>44,821,030</b>	<b>42,889,614</b>

**14 SCHEDULE - 4C INTANGIBLE ASSETS**

S. No.	Assets Heads	Gross Block			Depreciation / Amortization Block			Net Block			
		Opening Balance	Additions	Deductions	Closing Balance	Rate of Depreciation	Opening Balance	Depreciation or Amortization for the year	Total Depreciation / Amortization	31/03/2019	31/03/2020
1	Patents & Copyrights	-	-	-	-	-	-	-	-	-	-
2	Computer Software	-	-	-	-	-	-	-	-	-	-
3	E-Journals	-	-	-	-	-	-	-	-	-	-

**SCHEDULE E - 4C(i) PATENTS AND COPYRIGHTS**

	Particulars	Opening Balance	Additions	Gross	Amortization	Net Block 31/03/2019	Net Block 31/03/2020
A	Patent Granted						
	1. Balance as on 31/03/2014 of Patents obtained in 2010-11 (Original Value - Rs. )			-	-	-	-
	2. Balance as on 31/03/2014 of Patents obtained in 2011-12 (Original Value - Rs. )			-	-	-	-
	3. Balance as on 31/03/2014 of Patents obtained in 2012-13 (Original Value - Rs. )			-	-	-	-
	4. Patents granted during the current year			-	-	-	-
	Total			-	-	-	-

	Particulars	Opening Balance	Additions	Gross	Patents Granted / Rejected	Net Block 31/03/2019	Net Block 31/03/2020
B	Patents Pending in respect of Patents applied for						
	1. Expenditure incurred during the year 2009-10 to 2011-12			-	-	-	-
	2. Expenditure incurred during the year 2012-13			-	-	-	-
	3. Expenditure incurred during the year 2013-14			-	-	-	-
	Total			-	-	-	-

**15 SCHEDULE -4D OTHERS**

S. No.	Assets Heads	Opening Balance	Additions	Deductions	Closing Balance	Rate of Depreciation	Opening Balance	Depreciation for the year	Deduction / Adjustments	Total Depreciation	31/03/2020	31/03/2021
1	Land	-	-	-	-	-	-	-	-	-	-	-
2	Site Development	310,181	-	-	310,181	-	-	-	-	310,181	-	310,181
3	Buildings	-	-	-	-	-	-	-	-	-	-	-
4	Roads and Bridges	-	-	-	-	-	-	-	-	-	-	-
5	Tubewells & Water Supply	-	-	-	-	-	-	-	-	-	-	-
6	Severage & Drainage	-	-	-	-	-	-	-	-	-	-	-
7	Electrical Installation and Equipments	4,259,768	-	-	4,259,768	5%	1,260,667	212,988	-	1,473,655	2,999,101	2,786,113
8	Plant & Machinery	605,425	-	-	605,425	5%	181,628	30,271	-	211,899	423,798	393,526
9	Scientific & Laboratory Equipments	323,431,925	17,473,856	-	340,905,781	8%	90,969,452	27,372,462	-	118,261,914	232,442,473	222,643,867
10	Office Equipments	868,370	-	-	868,370	7.5%	265,682	65,128	-	330,810	602,688	537,560
11	Audio Visual Equipments	-	-	-	-	-	-	-	-	-	-	-
12	Computers & Peripherals	18,620,026	565,474	-	19,185,500	20%	14,929,037	2,276,016	(1,062,322)	16,142,731	3,690,989	3,042,769
13	Furniture, Fixtures & Fittings	10,688,898	110,188	-	10,799,086	7.5%	4,061,230	809,931	-	4,871,161	6,627,968	5,927,925
14	Vehicles	-	-	-	-	-	-	-	-	-	-	-
15	Library Books & Scientific Journals	1,385,338	57,231	-	1,442,569	10%	567,338	144,257	(1,153)	710,442	818,000	732,127
16	Computer Software	163,725	-	-	163,725	40%	163,724	-	-	163,724	1	1
17	E-Journals	-	-	-	-	40%	-	-	-	-	-	-
	<b>Total</b>	360,333,656	18,206,749	-	378,540,405		112,418,757	30,811,054	(1,063,475)	142,166,337	247,914,899	236,374,068
18	Capital Work in Progress											
	<b>Grand Total</b>	<b>360,333,656</b>	<b>18,206,749</b>	-	<b>378,540,405</b>		<b>112,418,757</b>	<b>30,811,054</b>	<b>(1,063,475)</b>	<b>142,166,337</b>	<b>247,914,899</b>	<b>236,374,068</b>

Note : The additions during the year include additions from:

Gifted	
Earmarked Funds	-
Sponsored Projects/Consultancy Funds	17,383,710
Own Funds	823,098

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18,206,749

**16 SCHEDULE-6 INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS**

		Current Year	Previous Year
1	In Central Government Securities		
2	In State Government Securities		
3	Other Approved Securities		
4	Shares		
5	Debentures and Bonds		
6	Term Deposits with Banks	722,902,442	718,141,219
7	Others (to be specified)		
	<b>Total</b>	<b>722,902,442</b>	<b>718,141,219</b>

**SCHEDULE-5A INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS (FUND WISE)**

Sl. No.	Funds	Current Year	Previous Year
1	Endowment Funds ( <b>Vide Annexure - I</b> )	52,621,750	53,121,937
2	Earmarked Funds / Sponsored Projects ( <b>Vide Annexure - II</b> )	670,280,692	665,016,282
	<b>Total</b>	<b>722,902,442</b>	<b>718,141,219</b>

**18 SCHEDULE-6 INVESTMENT - OTHERS**

	Current Year	Previous Year
1 In Central Government Securities	-	-
2 In State Government Securities	-	-
3 Other Approved Securities	-	-
4 Shares	-	-
5 Debentures and Bonds	-	-
6 Term Deposits with Banks ( <b>Vide Annexure - III</b> )	13,929,320	13,407,756
7 Others (to be specified)	-	-
<b>Total</b>	<b>13,929,320</b>	<b>13,407,756</b>

**19 SCHEDULE-7 CURRENT ASSETS**

	Current Year	Previous Year
<b>1. Stock :</b>		
a) Stores and Spares		
b) Loose Tools		
c) Publications		
d) Laboratory chemicals, consumables and glass ware		
e) Building Materials		
f) Electrical Materials		
g) Stationery		
<b>2. Sundry Debtors :</b>		
a) Debts outstanding for a period exceeding six months		
b) <u>Others</u>		
MHRD Grant receivables [over and above sanctioned for the year]	250,951,812	351,077,405
c) MHRD Grant receivables [sanctioned for the year]	-	-
d) Any Other Receivables	-	6,092,100
<b>3. Cash and Bank balances :</b>		
a) <b>With Scheduled Banks</b>		
- in Current Account (Vide Annexure - V)	186,481,076	145,373,022
- in Term Deposit Accounts (Vide Annexure - IV)	15,708,583	15,634,763
- in Savings Accounts (Vide Annexure - VI)	1,079,551,996	896,555,304
b) <b>With Non-Scheduled Banks</b>		
c) Cash in hand	-	-
d) Cheques in hand	-	-
<b>4. Post Office - Savings Accounts</b>		
<b>T</b>	<b>1,532,693,467</b>	<b>1,414,732,594</b>

*Note : A separate Annexure is being enclosed showing the bank details, nomenclature of accounts showing the fund for which the bank accounts are being dedicated and the balance as on 31/03/2021*

- a) Balance in Savings Bank a/c for Earmarked Fund - Rs. 15,49,49,330
- a) Balance in Savings Bank a/c for Endowment Fund - Rs. 2,03,93,966

**20 SCHEDULE - 8 LOANS AND ADVANCES**

	Current Year	Previous Year
<b>1. Advance to employee : (Non interest bearing)</b>		
a) Salary	-	-
b) Festival	188,400	193,200
c) Medical Advance	2,059,326	1,750,854
d) Other (to bespecified)	-	-
- Advance to employees (Vide Annexure - VII)	367,857	274,557
<b>2. Long Term Advance to employees : (Interestbearing)</b>		
a) Vehicle Loan	-	-
b) Home Loan	-	-
c) Other (to bespecified)	-	-
<b>3. Advances and other amounts recoverable in cash or in kind or value to be received</b>		
a) On Capital Account	154,367,953	41,616,118
b) to Suppliers (Vide Annexure - VIII)	100,000	1,735,844
c) Other (tobespecified)- Advance Student Research Scholars (Vide Annexure -IX)	100,000	130,000
d) Other (to be specified) - Advance for Research Projects	133,031	129,609
e) Other (to be specified) - Advance for Consultancy	-	10,080
f) Other (to be specified) - Institute Development Fund	10,000	10,000
g) Other-Miscellaneous	-	-
h) Other-E Journals	3,908,267	-
<b>4. Prepaid Expenses</b>		
a) Insurance	-	-
b) Other Expenses	-	-
<b>5. Deposits</b>		
a) Telephone	-	-
b) Lease Rent	-	-
c) Electricity	8,306,519	7,836,339
d) AICTE, if applicable	-	-
e) Other (to be specified) - against research projects	-	-
f) Other (to be specified) - against consultancy	-	-
<b>6. Income Accrued</b>		
a) On investments from Earmarked / Endowment Funds	29,068,117	-
b) On investments -Others	1,057,690	982,385
c) On Loans and Advances	-	-
<b>7. Other - Current assets receivable from UGC / sponsored projects</b>		
a) Debit balances in Sponsored projects	-	-
b) Debit balances in Sponsored Fellowships & Scholarships	13,873,625	9,353,324
c) Grants Receivables	-	-
d) Other Receivables fromUGC	-	-
<b>8. Claim Receivable</b>		
Advance Tax / Income Tax Deducted at Source receivable	7,395,743	2,860,688
<b>Total</b>	<b>220,936,528</b>	<b>66,882,998</b>

**21 SCHEDULE - 9 ACADEMIC RECEIPTS**

	Current Year	Previous Year
<b>FEES FROM STUDENTS</b>		
<b>A. Academic</b>		
1. Tuition Fees	148,945,713	166,116,103
2. Admission Fees	2,444,100	3,108,000
3. Enrolment Fees		
4. Library Admission Fees		
5. Laboratory Fees		
6. Art & Craft Fees		
7. Registration Fees		-
8. Course Fees	3,175,600	6,723,850
<b>Total (A)</b>	<b>154,565,413</b>	<b>175,947,953</b>
<b>B. Examinations</b>		
1. Admission Test Fees	-	-
2. Annual Examination Fees		
3. Mark sheet, Certificate Fees	207,700	502,250
4. Entrance Examination Fees	5,439,000	7,449,500
<b>Total (B)</b>	<b>5,646,700</b>	<b>7,951,750</b>
<b>C. Other Fees</b>		
1. Identity Card Fees		
2. Fine / Miscellaneous Fees	1,277,378	2,378,922
3. Medical Fees	-	-
4. Transportation Fees	-	-
5. Hostel Development Fees	-	12,483,400
<b>Total (C)</b>	<b>1,277,378</b>	<b>14,862,322</b>
<b>D. Sale of Publications</b>		
1. Sale of Admission Forms	-	-
2. Sale of Syllabus, Question Papers etc		
3. Sale of prospectus including admission forms		
<b>Total (D)</b>	<b>-</b>	<b>-</b>
<b>E. Other Academic Receipts</b>		
1. Registration fee for workshops, programmes, Student Activities Fees	2,658,312	5,072,900
2. Registration fees (Academic Staff College)	-	-
3. External Examination Fees Receipts	-	-
4. Convocation fees	104,000	1,135,300
5. Tuition Fees - Self Financing Course	-	-
6. Infrastructure Maintenance Fees	7,349,000	14,893,500
<b>Total (E)</b>	<b>10,111,312</b>	<b>21,101,700</b>
<b>GRAND TOTAL (A+B+C+D+E)</b>	<b>171,600,803</b>	<b>219,863,725</b>

**22 SCHEDULE-10      GRANTS / SUBSIDIES (IRREVOCABLE GRANTS RECEIVED)**

Particulars	Plan			Current Year Total	Previous Year Total
	Govt of India	UGC Plan	State Govt. Grant		
Balance B/F	(351,077,405)	-	46,851	(351,030,554)	(152,090,945)
Add : Receipts during the year plus reversal	1,494,615,434	-	-	1,494,615,434	1,352,700,000
<b>Total</b>	<b>1,143,538,029</b>	<b>-</b>	<b>46,851</b>	<b>1,143,584,880</b>	<b>1,200,609,055</b>
Less : Refund	-	-	-	-	-
Balance	1,143,538,029	-	46,851	1,143,584,880	1,143,584,880
Less : Utilized for Capital expenditure (A)	83,463,749	-	-	83,463,749	83,463,749
Balance	1,060,074,280	-	46,851	1,060,121,131	1,060,121,131
Less : Utilized for Revenue expenditure (B)	1,311,026,092	-	-	1,311,026,092	1,343,301,977
<b>Balance C/F (C)</b>	<b>(250,904,812)</b>	<b>-</b>	<b>46,851</b>	<b>(250,904,961)</b>	<b>(351,030,554)</b>

**23 SCHEDULE-11 INCOME FROM INVESTMENTS**

Particulars	Earmarked/Endowment Funds		Other Investments	
	Current Year	Previous Year	Current Year	Previous Year
1. Interest				
a. On Government Securities				
b. Other Bonds / Debentures				
2. Interest on Term Deposits	1,354,827	51,111,694	5,062,352	1,700,584
3. Income accrued but not due on Term Deposits / Interest bearing advances to employees	40,457,278	9,837,994	1,057,690	982,385
4. Interest on Savings Bank Accounts	732,476	518,586	-	-
5. Interest on Security Deposits with CESC	-	-	470,180	443,566
6. Others (Specify) - Dividend	-	-	1,946	34,055
<b>Total</b>	<b>42,544,581</b>	<b>61,468,274</b>	<b>6,592,168</b>	<b>3,160,590</b>
Transferred to Earmarked / Endowment Funds	42,544,581	61,468,274	-	-
<b>Balance</b>	<b>Nil</b>	<b>Nil</b>		

**24 SCHEDULE-12    INTEREST EARNED**

Particulars	Current Year	Previous Year
1. On Savings Accounts with scheduled banks	21,990,992	27,010,053
2. On Loans		
a. Employees / Staff	-	-
b. Others	-	-
3. On Debtors and Other Receivables	-	-
<b>Total</b>	<b>21,990,992</b>	<b>27,010,053</b>

**25 SCHEDULE - 13 OTHER INCOME**

	Current Year	Previous Year
<b>A. Income from Land and Buildings</b>		
1. Hostel Room Rent	10,650	7,838,417
2. Licence Fees	5,458,869	1,477,090
3. Hire Charges of Auditorium / Play ground / Convention Centre / Guest House etc.	1,145,158	2,450,145
4. Electricity Charges recovered	2,186,262	3,920,530
5. Water Charges recovered	-	-
<b>Total (A)</b>	<b>8,800,939</b>	<b>15,686,182</b>
<b>B. Sale Institute's Publications</b>		
<b>C. Income from holding events</b>		
1. Gross Receipts from annual function / sports carnival		
Less : Direct expenditure incurred on the annual function / sports carnival		
2. Gross Receipts from fetes		
Less : Direct expenditure incurred on the fetes		
3. Gross Receipts for Educational Tours		
Less : Direct expenditure incurred on the tours		
4. Others (to be specified and separately disclosed)		
- Course Fees	-	-
- Centre Fees for External Exams	-	5,000
- Seminar Programme Fees receipts	825,800	1,624,244
- Refund of Processing Fees paid to UGC	-	7,500,000
<b>Total (C)</b>	<b>825,800</b>	<b>9,129,244</b>
<b>D. Others</b>		
1. Income from Consultancy and Institutional Development Fund	8,375	380,493
2. RTI Fees		
3. Income from Royalty		
4. Sale of application forms	23,000	563,805
5. Miscellaneous Receipts (Sale of tender forms, waste paper etc.)	133,000	291,585
6. Sale / Disposal of Assets / Scraps		
a. Owned Assets		
b. Assets received free of costs		
7. Grants / Donations from Institutions, Welfare Bodies and International Organizations		
8. Others (specify) - liabilities written back	103,644	116,375
<b>Total (D)</b>	<b>268,019</b>	<b>1,352,258</b>
<b>GRAND TOTAL (A+B+C+D))</b>	<b>9,894,758</b>	<b>26,167,684</b>

**26 SCHEDULE-14      PRIOR PERIOD INCOME**

Particulars	Current Year	Previous Year
1. Academic Receipts	-	107,200
2. Income from Investments	-	-
3. Interest earned	-	-
4. Income from MHRD Grant	-	-
5. Depreciation	1,063,475	13,015,369
6. Other Income - Salary / Contribution for CMS	-	-
<b>Total</b>	<b>1,063,475</b>	<b>13,122,569</b>

**27 SCHEDULE-15 STAFF PAYMENTS & BENEFITS (ESTABLISHMENT EXPENSES)**

Particulars	Current Year			Previous Year		
	Plan	Others	Total	Plan	Others	Total
a) Salaries and Wages			-			-
- Central	871,510,597	-	871,510,597	859,457,983	-	859,457,983
- UGC	-	-	-	-	-	-
- Own sources and out of State Government Grant	-	-	-	-	18,044,028	18,044,028
b) Allowances and Bonus	12,600	-	12,600	-	44,800	44,800
c) Contribution to Provident Fund	1,589,013	-	1,589,013	2,320,430	-	2,320,430
d) Contribution to Other Fund (specify)			-			-
e) Staff Welfare Expenses - Medical Expenses [Recovery of CMS Fund Rs. 47,76,276 and Medical Expenditure reimbursed Rs. 94,57,769]	5,235,342	5,235,342	4,912,787	4,912,787		
f) Retirement and Terminal Benefits	30,281,102	-	30,281,102	32,514,238	-	32,514,238
g) LTC Facility	5,485,057	-	5,485,057	7,936,195	-	7,936,195
h) Leave Salary	24,628,490	-	24,628,490	11,196,148	-	11,196,148
i) Children Education Allowance	6,723,000	-	6,723,000	7,047,000	-	7,047,000
j) Honorarium	-	226,500	226,500	-	629,959	629,959
k) Others (Specify) - CVP Payment	17,573,088	-	17,573,088	43,652,867	-	43,652,867
l) Others (Specify) - Composite Transfer and Packing	-	-	-	4,404	-	4,404
m) Others (Specify) - Pension Payment	38,887,648	-	38,887,648	27,571,834	-	27,571,834
<b>Total</b>	<b>996,690,595</b>	<b>5,461,842</b>	<b>1,002,152,437</b>	<b>996,613,886</b>	<b>18,718,787</b>	<b>1,015,332,673</b>

**28 SCHEDULE - 15A EMPLOYEES RETIREMENT AND TERMINAL BENEFITS**

	Pension	Gratuity	Leave Encashment	Total
<b>Opening Balance as on .....</b>				
Addition : Capitalized value of Contributions received from other organizations				
<b>Total (a)</b>	-	-	-	-
<b>Less : Actual Payment during the year (b)</b>				
Balance available as on 31/03/..... c = (a-b)				
<b>Provision required on 31/03 ..... as per Actuarial Valuation (d)</b>				
A. Provision to be made in the current year (d-c)	-	-	-	-
B. Contribution to New Pension Scheme				
C. Medical reimbursement to retired Employees				
D. Travel to Hometown on Retirement				
E. Deposit Linked Insurance Payment				
<b>Total (A+B+C+D+E)</b>	-	-	-	-
<b>To transfer to Schedule 10 [i.e. Govt of India Grant]</b>				
from Schedule 15	996,690,595			
from Schedule 16	192,313,448			
from Schedule 17	84,681,128			
from Schedule 18	1,040,808			
from Schedule 19	35,041,878			
from Schedule 20	20,304			
from Schedule 21	-			
from Schedule 22	1,237,931			
	<b>1,311,026,092</b>			

**29 SCHEDULE-16 ACADEMIC EXPENSES**

Particulars	Current Year			Previous Year		
	Plan	Others	Total	Plan	Others	Total
a) Laboratory expenses	3,622,937	-	3,622,937	3,441,098	3,913,308	7,354,406
b) Field work / Participation in Conferences	493,469	-	493,469	406,586	-	406,586
c) Expenses on Seminars / Workshops	879,764	-	879,764	1,081,487	38,664	1,120,151
d) Payment to visiting faculty	985,920	54,611	1,040,531	1,258,717	209,100	1,467,817
e) Examination	2,615,984	-	2,615,984	1,206,034	-	1,206,034
f) Student Welfare expenses	-	1,812,670	1,812,670	251,430	1,169,917	1,421,347
g) Admission expenses	-	-	-	-	-	-
h) Convocation expenses	546,183	-	546,183	2,453,782	-	2,453,782
i) Publications	-	-	-	-	-	-
j) Stipend / means cum merit scholarship	-	-	-	-	-	-
k) Subscription expenses	350,000	148,655	498,655	857,513	29,500	887,013
l) Others (sports/cultural/medal etc)	208,882	910,687	1,119,569	1,122,643	614,156	1,736,799
m) Departmental Contingencies	11,243,427	207,387	11,450,814	11,365,446	1,216,535	12,581,971
n) Inaugural/Special Program	-	-	271,175	234,994	506,169	
o) PhD and Other Fellowships (Institute)	171,291,188	-	171,291,188	166,796,619	-	166,796,619
p) Research Project Expenditure - Recurring Expenses	-	107,372	107,372	-	765,447	765,447
q) Institute Development Expenditure - Research Support	-	8,375	8,375	-	380,493	380,493
r) Travelling And Conveyance	75,684	-	75,684	993,210	3,171,440	4,164,650
<b>Total</b>	<b>192,313,448</b>	<b>3,249,757</b>	<b>195,563,205</b>	<b>191,505,740</b>	<b>11,743,544</b>	<b>203,249,284</b>

**30 SCHEDULE -17 ADMINISTRATIVE AND GENERAL EXPENSES**

Particulars	Current Year			Previous Year	
	Plan	Others	Total	Plan	Others
<b>A. Infrastructure</b>					Total
a) Electricity and power	16,611,084	-	16,611,084	35,389,036	35,389,036
b) Water Charges			-		-
c) Insurance			-		-
d) Rent, Rates and Taxes (including property tax)	22,706	-	22,706	-	-
<b>B. Communication</b>					-
e) Postage and Stationery	271,689		271,689	586,618	586,618
f) Telephone, Fax and Internet Charges	1,211,521		1,211,521	254,916	254,916
<b>C. Others</b>					-
g) Printing and Stationery (consumption)	1,945,602		1,945,602	1,213,007	1,213,007
h) Travelling and Conveyance Expenses	567,038		567,038	2,381,630	136,383
i) Hospitality	-		-	-	-
j) Auditors Remuneration	800,000	13,000	813,000	600,000	70,110
k) Professional Charges	1,786,935		1,786,935	1,081,586	1,081,586
l) Advertisement and Publicity	545,604		545,604	916,986	15,000
m) Magazines and Journals	-		-	-	-
n) Others (specify) - Hiring of Manpower	30,353,761		30,353,761	43,260,023	43,260,023
o) Guest House Expenses	-	1,975,495	1,975,495	-	2,034,492
p) Remuneration to Experts			-	-	-
q) Security Services	27,214,396		27,214,396	27,515,806	27,515,806
r) Others (specify) - Contingencies	3,174,876	214,598	3,389,474	2,164,254	2,380,895
s) Others (specify) - Administrative Charges - EPF	51,225		51,225	108,845	108,845
n) Meeting Expenses	124,691		124,691	1,076,268	107,751
<b>Total</b>	<b>84,681,128</b>	<b>2,203,093</b>	<b>86,884,221</b>	<b>116,548,975</b>	<b>2,580,377</b>
					<b>119,129,352</b>

**31 SCHEDULE-18 TRANSPORTATION EXPENSES**

Particulars	Current Year			Previous Year		
	Plan	Others	Total	Plan	Others	Total
1 Vehicles (owned by institution)			-			-
a) Running expenses	76,095		76,095	932,912		932,912
b) Repair & Maintenance	104,988	7,650	112,638	139,165	2,000	141,165
c) Insurance expenses			-			-
2 Vehicles taken on rent / lease			-			-
Rent / lease and Running expenses			-			-
3 Vehicle (Taxi) hiring expenses	859,725		859,725			-
4 Others			-			-
<b>Total</b>	<b>1,040,808</b>	<b>7,650</b>	<b>1,048,458</b>	<b>1,072,077</b>	<b>2,000</b>	<b>1,074,077</b>

**32 SCHEDULE -19 REPAIRS & MAINTENANCE**

Particulars	Current Year			Previous Year		
	Plan	Others	Total	Plan	Others	Total
a) Buildings (including Electrical maintenance)	27,970,618	-	27,970,618	22,946,537	-	22,946,537
b) Furniture & Fixtures	36,176		36,176	76,293		76,293
c) Plant & Machinery			-	-	-	-
d) Office Equipment	272,143	4,602	276,745	745,810	172,211	918,021
e) Computers & Softwares	928,585		928,585	1,920,917	104,654	2,025,571
f) Laboratory & Scientific Equipments	1,090,276		1,090,276	1,381,600	-	1,381,600
g) Audio Visual Equipments	-	-	-	-	-	-
h) Cleaning Material & Services	-	-	-	-	-	-
i) Book Binding Charges	-	-	-	-	-	-
j) Gardening	-	-	-	-	-	-
k) Estate Maintenance	4,744,080	-	4,744,080	7,854,066	-	7,854,066
l) Others (specify) - PHE maintenance			-	-	-	-
<b>Total</b>	<b>35,041,878</b>	<b>4,602</b>	<b>35,046,480</b>	<b>34,925,223</b>	<b>276,865</b>	<b>35,202,088</b>

**33 SCHEDULE-20 FINANCE COSTS**

Particulars	Current Year			Previous Year		
	Plan	Others	Total	Plan	Others	Total
a) Bank Charges	20,304	-	20,304	-	218,790	218,790
b) Interest on Term Loan	-	-	-	-	-	-
c) Others (specify)			-			-
<b>Total</b>	<b>20,304</b>	-	<b>20,304</b>	-	<b>218,790</b>	<b>218,790</b>

**34 SCHEDULE-21 OTHER EXPENSES**

Particulars	Current Year			Previous Year		
	Plan	Others	Total	Plan	Others	Total
a) Provision for Bad and Doubtful Debits / Advances		-	-	-	-	-
b) Irrecoverable Balance written off		-	-	-	-	-
c) Grants / Subsidies to other institutions / organizations		-	-	-	-	-
d) Others (specify) - Fees and Interest on Statutory Payment	-	655	655	-	212,798	212,798
	-	-	-	-	-	-
<b>Total</b>	<b>-</b>	<b>655</b>	<b>655</b>	<b>-</b>	<b>212,798</b>	<b>212,798</b>

**35 SCHEDULE-22 PRIOR PERIOD EXPENSES**

Particulars	Current Year			Previous Year		
	Plan	Others	Total	Plan	Others	Total
1 Establishment expenses	880,817	-	880,817	-	-	-
2 Academic expenses			-			-
3 Administrative expenses	7,775		7,775	-	119,006	119,006
4 Transportation expenses			-			-
5 Repairs & Maintenance - Civil			-	2,174,951	-	2,174,951
6 Depreciation	349,339		349,339	461,125	-	461,125
<b>Total</b>	<b>1,237,931</b>	-	<b>1,237,931</b>	<b>2,636,076</b>	<b>119,006</b>	<b>2,755,082</b>

**INDIAN INSTITUTE OF ENGINEERING SCIENCE AND TECHNOLOGY**

**(Corresponding to Annual Accounts 2020-2021)**

**SCHEDULE-23**

**Significant Accounting Policies:**

Indian Institute of Engineering Science and Technology is an Autonomous body. The Institute is financed by the Ministry of Education (erstwhile Ministry of Human Resource and Development), Government of India. The Institute is also undertaken various research projects and consultancy works through its esteemed teachers and the assets created out of it is duly stated in these financial statements.

**Financial Statements-**

The Institute prepared the following Financial Statements i.e. Balance Sheet and Income & Expenditure Account for the year ended as on 31<sup>st</sup> March 2021. The Common Accounting format as prescribed by the Ministry has been followed in drawing up those financial statements; however, in its first year the institute had its best endeavor to follow every line item of the said prescribed form, however, the same in some cases could not be strictly followed and will be incorporated in the ensuing financial year's statement;

**Accounting Concept-**

The financial statement has been prepared under Historical Cost Convention unless otherwise stated and on the principal of going concern method.

**Accounting Basis-**

The account is prepared under accrual basis of accounting, excepting the cases specifically stated in these significant accounting policies. Government grants & Subsidies are accounted for on accrual basis if reasonable assurance obtained for its definite future receipts.

**Investment Accounting-**

The Institute has invested its fund available to its credit in fixed deposits with scheduled commercial banks and the same is stated at the face value plus accrued interest thereon.

**Governments Grants & Subsidies-**

Government Grants / Subsidies receivable during the year under Non recurring head are being treated as Capital Receipts and accounting for under Corpus Fund to the extent utilized for capital expenditure.

Government Grants / Subsidies earmarked for certain purpose receivable during the year under any head and to be utilized by way of payment for that specific purpose are being treated as Capital Receipts & accounting for under Earmarked Fund.

Government Grants /Subsidies receivable during the year under Recurring head are being treated as Revenue receipts and accounted for as income under the head Grant/Subsidy to the extent the same has been utilized for the purpose for which the grant has been sanctioned.

**Revenue**

**Recognition -**

**Tuition Fees**

Tuition fees, Sale of Admission Forms have been accounted for as and when actually received from the students. Fees actually paid to the mess authority, but not received by the Institute as on year end has been considered as receivable from mess authority.

**Interest Income -**

Interest on savings bank account have been considered as income as and when the same is credited in bank account and interest accrued on fixed deposits have been accounted for at the end of the year.

**Fixed Assets and Depreciation Accounting -**

Fixed Assets are valued at a cost of acquisition inclusive of inward expenses and incidental expenses. Condemned & unserviceable assets are written off in accounts as and when required.

Gifted / donated assets, if any, are valued at declared value where available; if not available, the value is estimated based on the present market value adjusted with reference to the physical condition of the assets. They are setup by credit to Capital fund and merged with fixed assets of the institute. Depreciation is charged at the rates applicable to the respective assets.

Books received as gifts, if any, are valued at selling prices printed on the books. Where they are not printed, the value is based on assessment.

Fixed assets are valued at cost less accumulated depreciation. Depreciation on fixed assets is provided on Straight line method at the following rates:

<b>SI No</b>	<b>Particulars</b>	<b>Rate of Depreciation (p.a)</b>
I	Building	2%
II	Roads & Bridges	2%
III	Tubewells and Water Supply	2%
IV	Electrical Installations & Equipments	5%
V	Plant & Machinery	5%
VI	Scientific and Laboratory Equipment	8%
VII	Office Equipment	7.5%
X	Audio Visual Equipment	7.5%
XI	Computers & Peripherals	20%
XII	Furniture & Fixture	7.5%
XIII	Vehicles	10%
XIV	Library Books and Scientific Journals	10%
XV	Computer Software	40%
XVI	e-Journals	40%

Depreciation is provided for the whole year on additions during the year, irrespective the dates of addition.

Where an asset is fully depreciated, it will be carried at a residual value Re 1 in the balance sheet and will not be further depreciated. Thereafter, depreciation is calculated on the additions of each year separately at the rate of depreciation applicable for that asset head.

**Fixed Asset procured for sponsored projects** – Fixed Assets created out of Earmarked Funds and funds of sponsored projects, where the ownership of such asset vests in the Institute, are set up by credit to Capital Fund and merged with the Fixed Assets of the Institute. Assets created out of Sponsored Project funds, where the ownership is retained by the sponsors but held and used by the institute are separately disclosed in the Notes on Accounts

#### **Inventories –**

The inventories of chemicals, stationery etc are not separately maintained and the whole quantity have been accounted for as consumed as and when purchased.

#### **Retirement Benefits-**

Provident fund of the employees has been deducted from salary and the same is being transferred to State Bank of India, Howrah Branch, which is being maintained by Howrah Treasury – I, Govt of West Bengal.

Other retirement benefits are accounted for as and when being actually incurred

#### **Earmarked / Endowment Funds -**

Earmarked funds created by the institute and Endowment funds received by the institute has been separately accounted for and also its corresponding investments and assets.

**Sponsored Projects -**

In respect of the ongoing sponsored projects, the amounts received from sponsors are credited to the head 'Current Liabilities and Provisions – Current Liabilities – Other Liabilities – Receipts against ongoing projects". As and when expenditure is incurred / advances are paid against such projects, or the concerned project account is debited with allocated overhead charges, the liability account is debited.

In addition to the earmarked fund for the junior research fellowships funded by the University Grants Commission, Fellowships and Scholarships are also sponsored by various organizations. These are accounted in the same way as sponsored projects except that the expenditure generally is on disbursement of fellowships and scholarships, which may include allowances for contingent expenditure by the fellows and scholars.

The institute itself also awards fellowships and scholarships, which are accounted as Academic Expenses.

**Income Tax –**

The income of the Institute is exempt from Income Tax under section 10(23c)(iiab) of the Income Tax Act, 1961. No provision for income tax is therefore made in the accounts.

**SCHEDULE 24**

**Contingent Liabilities & Notes on Accounts:**

1. Claims against the Institute suits Rs. Nil (Previous year Rs. Nil)
2. Previous year's figures have been regrouped / rearranged whenever deems fit.
3. Addition in the year to fixed assets purchased out of sponsored projects and earmarked fund for which the effective ownership lies with the institute and the institute is using the same for the purpose of the activities of the institute only :-

Plan Grant                   Rs.

8,31,63,719 Sponsored Projects  
                                  Rs.

1,73,83,710

The assets have been set up by credit to Capital Fund

*In the balance sheet as on 31<sup>st</sup> March 2014 and the balance sheet of earlier years, fixed assets created out of plan funds and fixed assets created out of non plan funds or other funds from sources were not exhibited distinctly.*

***Disclosure on Library Books :-***

4041 books worth Rs. 1,92,208 missing as per report submitted by a CA firm on physical verification of the library books as on 31/03/2017; the same could not be reduced from the written down value of the library books as per schedule 4 as the date of addition and consequent depreciation charged on the same could not be accurately ascertained;

1. The Institute is set up on land measuring 114 acres at Shibpur. The institute is an erstwhile state university and the title of the land rests with the Government of West Bengal. The title of the land is not yet transferred to the Institute's name and the state government has been approached to make the necessary transfer process. The value of land is taken as Nil in the balance sheet.
5. In the opinion of the management, the current assets, loans and advances and deposits have been valued on realization in the ordinary course, equal at least to the aggregate amount shown in the balance sheet.
6. In the endeavor of the institute to conform the prescribed common format to the best extent possible, the provident fund assets and liabilities have been taken out from the accounts and are being presented separately.
7. Capital commitment as on 31<sup>st</sup> March, 2021-  
The status of the capital commitment on the major ongoing projects of the institute are as follows –
  - a) Construction of 1000 capacity single seated hostel for boys – estimated cost Rs. 129.43
  - b) Renovation of electrical works of workshop – estimated cost Rs. 0.93 crore
  - c) Renovation of Guest House - estimated cost Rs. 0.49 crore
  - d) Construction of 8 storied ladies hostel for the PG students and research scholars – estimated cost Rs. 5.15 crore
  - e) Construction of lecture theatre complex – estimated cost Rs. 0.60 crore
8. In spite of the best of the efforts, certain receipts to the extent of Rs. 17,79,059 could not be traced and no claim has been made against the Institute to refund the same. As considerable time has been lapsed, the same is being credited to the Corpus Fund of the Institute.
9. Schedules 1 to 24 are annexed to and form an integral part of the balance sheet as on 31<sup>st</sup> March 2021 and the Income and Expenditure account for the year ended as on that date.

**Dy. Registrar (Finance)**

**Registrar**

**Director**

(D. Bandyopadhyay)  
Proprietor  
M. No.- 057861  
Debasis Bandyopadhyay & Co.  
Chartered Accountants

**37 PROVIDENT FUND ACCOUNT**

**Balance Sheet as at 31.03.2021**

<b>Liabilities</b>	<b>Amount</b>	<b>Assets</b>	<b>Amount</b>
<b>GPF</b>			
Opening balance	429,069,618	Recoverable Advance	77,480,204
Add : Subscription received	79,524,850	Howrah Treasury a/c	465,563,346
Add : Interest	27,496,768		
Less : Withdrawal	4,108,610	Interest accrued as on 31/03/2021	28,791,185
	(A) 531,982,626		
<b>CPF</b>			
Opening balance	4,351,802		
Add : Subscription received	1,163,701		
Add : Interest	355,167		
Less : Withdrawal	-		
	(B) 5,870,670		
<b>CPF (Institute Contribution)</b>			
Opening balance	4,033,910		
Add : Subscription received	842,340		
Add : Interest	314,003		
Less : Withdrawal	-		
	(C) 5,190,253		
<b>Interest Reserve Account</b>	28,791,185		
			571,834,735

Dy. Registrar (Finance)

Registrar

Director

(D. Bandyopadhyay)  
Proprietor  
M. No.- 057861  
Debasis Bandyopadhyay & Co.  
Chartered Accountants

**38 Receipts and Payments Account for the year ended 31.03.2021**

<b>Receipts</b>	<b>Amount</b>	<b>Payments</b>	<b>Amount</b>
Opening Balance [11020301]	373,684,271	GPF Advance [07040100]	13,709,145
GPF Subscription [07010503]	78,144,100	GPF Withdrawal [07040300]	4,108,610
CPF Subscription [07010509]	1,163,701		
CPF Contribution by Employers [20030200]	842,340		
GPF Advance refund [07010504]	1,380,750		
Interest received [03020200]	28,165,939	Closing Balance [11020301]	465,563,346
	<b>483,381,101</b>		<b>483,381,101</b>

**39 Income and Expenditure Account for the year ended 31.03.2021**

<b>Expenditure</b>	<b>Amount</b>	<b>Income</b>	<b>Amount</b>
Interest credited to PF a/c	28,165,939	Interest accrued for the year	28,791,185
		Interest received for the year	28,165,939
Surplus / (Deficit)	28,791,185		
	<b>56,957,124</b>		<b>56,957,124</b>

Dy. Registrar (Finance)

Registrar

Director

(D. Bandyopadhyay)  
 Proprietor  
 M. No.- 057861  
 Debasis Bandyopadhyay & Co.  
 Chartered Accountants

**40 ANNEXURE -I: ENDOWMENT FUND FIXED DEPOSITS AS AT 31.03.2021**

Sl. No.	Name of Endowment Fund	Account No.	Date of Deposit / Reinvestment	Rate of Interest	Closing Balance as on 31.03.2021			Date of Maturity	Maturity Value
					Principal Amt.	Accumulated Int.	TOTAL		
1	Von Newman Scholarship Fund	0171100443029	12/09/2018	6%	53,747.00		53,747.00	12/09/2023	54,623.00
2	Dr. S. P. Brambha Memorial Merit Scholarship Fund	0171100442902	12/09/2018	6%	108,805.00		108,805.00	12/09/2023	108,638.00
3	Probir Sengupta Memorial Prize Fund	0171100433112	31/10/2017	6%	11,302.38	2,389.82	13,692.20	31/10/2022	15,222.68
4	Renu Chakraborty V. L. Fund	0171100433105	31/10/2017	6%	55,737.00		55,737.00	31/10/2022	55,737.00
5	Dr. Fazlur Kader Memorial Scholarship Fund	0171100442800	12/09/2018	6%	186,441.15	22,967.36	209,348.51	12/09/2023	243,618.06
6	J. N. Neogi Students' Benefit Fund	0171100442882	12/09/2018	6%	113,019.65	18,482.17	131,501.82	12/09/2023	162,221.08
7	Sunita Memorial Prize Fund	0171100442879	12/09/2018	6%	24,100.96	3,942.21	28,043.17	12/09/2023	32,460.51
8	Dr. B. N. Dey Scholarship Fund	0171100442886	12/09/2018	6%	58,692.05	9,598.21	68,288.26	12/09/2023	79,049.09
9	Kuria Kusum Scholarship Fund	0171100442981	12/09/2018	6%	77,444.00		77,444.00	12/09/2023	77,444.00
10	Sarita Kanta Nirmalya Biswas Golden Jubilee Scholarship Fund	0171100430098	01/11/2017	6%	20,007.00		20,007.00	01/11/2022	20,087.00
11	Prof. N. N. Sen Memorial Scholarship Fund	0171100443074	12/09/2018	6%	39,432.00		39,432.00	12/09/2023	40,075.00
12	Acharya P. C. Roy Scholarship	0171100443012	12/09/2018	6%	91,587.00		91,587.00	12/09/2023	93,080.00
13	Ramita Nandy & Genoda Sundari Memorial Scholarship Fund	0171100442947	12/09/2018	6%	48,928.00		48,928.00	12/09/2023	48,928.00
14	Liliuah Iron Works Ltd. Scholarship	0171100443043	12/09/2018	6%	47,693.00		47,693.00	12/09/2023	47,693.00
15	R. & K Ahmed Merit Scholarship	0171100443036	12/09/2018	6%	56,769.00		56,769.00	12/09/2023	57,694.00
16	The President of India Gold Medal	0171100443050	12/09/2018	6%	56,769.00		56,769.00	12/09/2023	57,694.00
17	Alumni Donation Seminar Series	0171100430075	31/10/2017	6%	484,631.89	130,049.02	624,680.91	31/10/2022	666,197.44
18	Jogesh Chandra Banerjee Memorial Scholarship Fund	0171100442081	12/09/2018	6%	478,376.00		478,376.00	12/09/2023	496,174.00
19	Anil Bhowmik Merit cum Means Scholarship Fund	0171100303499	08/08/2017	6%	109,468.00		109,468.00	08/08/2022	109,468.00
20	Jaya Smriti Puroskar (BESUS)	0171100404736	08/08/2017	6%	33,205.03	8,158.90	41,363.93	08/08/2022	44,408.54
21	BECA - 1864	0171100441984	12/09/2018	6%	358,557.67	58,543.36	417,101.03	12/09/2023	482,925.20
22	Prof. S. C. Dasgupta Gold Medal	1532100009461	09/11/2017	6%	213,244.50	42,071.35	255,315.85	08/08/2022	284,694.61
23	Jaya Smriti Puroskar	1532100009478	08/08/2017	6%	30,411.43	7,128.10	37,537.53	08/08/2022	40,601.14
24	Dhalipat Ghosh Memorial Scholarship	1532100058113	23/04/2017	6%	624,203.68	147,801.92	772,005.60	23/04/2022	840,711.84
25	Prabodh Kumar Chatterjee Fund - 1	1532100047580	28/09/2017	6.16%	280,000.00		250,000.00	28/09/2020	280,000.00
26	Rai Sahib Amulya Chandra Mitra Endowment Fund	1532100047588	28/09/2017	6.16%	341,445.63	68,517.30	409,962.93	28/09/2020	409,962.93
27	Rai Sahib Amulya Chandra Mitra Endowment Fund	1532100047579	28/09/2017	6.16%	300,000.00		300,000.00	28/09/2020	300,000.00
					4,260,189.02		519,585.72	4,799,774.74	5,097,410.02

**41 ANNEXURE - I (CONTD.) ENDOWMENT FUND FIXED DEPOSITS AS AT 31.03.2021 (CONTD.)**

Sl. No.	Name of Endowment Fund	Account No.	Rate of Interest	Closing Balance as on 31.03.2021			Date of Maturity	Maturity Value
				Date of Deposit / Reinvestme nt	Principal Amt.	Accumulated Int.		
28	S. C. Dasgupta Memorial Fund	15321000473844	23/09/2017 6.10%	4,280,189.02	519,585.72	4,799,774.74		5,097,410.02
29	Prabodh Kumar Chatterjee Fund - 2	1532100058122	12/09/2018 6.00%	1,878,185.14	375,165.07	2,254,350.21	23/09/2020	2,254,350.21
30	Madhusudan Bhattacharjee Memorial Fund	1532100062116	12/09/2018 6.00%	50,000.00	50,000.00	100,000.00	23/04/2021	100,000.00
31	Sougata Mukherjee Memo. Award for Excellence Fund	1532100089751	13/08/2020 5.25%	200,000.00	508,507.00	708,507.00	12/07/2021	200,000.00
32	Students Reward Programme Fund	1532100089760	13/08/2020 5.25%	1,650,000.00	1,650,000.00	3,300,000.00	13/08/2021	1,650,000.00
33	Suhad Choudhury Swimming Excellence Prize Fund	1532100045688	22/04/2020 5.80%	127,549.00	127,549.00	255,098.00	22/04/2021	127,549.00
34	Ujjal Dasgupta Scholarship Corpus Fund	153210005912	22/04/2020 5.80%	1,421,977.00	1,421,977.00	2,843,954.00	22/04/2021	1,421,977.00
35	GAABESU Admission Grant - 2	1532100056930	12/09/2018 6%	582,400.00	582,400.00	582,400.00	14/03/2021	582,400.00
36	Prof. P. C. Mitra Memorial Award	15321000705844	03/12/2017 6%	77,077.12	19,537.73	96,614.85	03/12/2022	103,811.72
37	Prof. P. C. Mitra Memorial Award	1532100090632	26/06/2018 6.00%	151,964.09	24,444.92	176,039.01	28/06/2023	204,175.26
38	K. K. Pal Chaudhuri Arch.	1532100084640	02/07/2018 6.00%	77,077.12	12,408.04	89,485.16	02/07/2023	103,811.70
39	Prof. A. K. Seal Gold Medal	23690310006207	28/03/2021 4.40%	150,376.00	590.89	150,966.89	28/11/2021	164,697.00
40	Prof. Amiya Basu Endowment Fund - 1	23880310011904	23/11/2018 6.75%	3,150,000.00	3,150,000.00	3,150,000.00	23/11/2021	3,150,000.00
41	Prof. Amiya Basu Endowment Fund - 2	1532100194863	26/12/2019 6.50%	1,658,787.00	1,658,787.00	3,317,574.00	26/12/2020	1,658,787.00
42	B.E.C. (55) Scholarship Fund	23690310006481	27/05/2020 5.50%	408,887.00	21,007.50	519,894.50	27/06/2021	526,897.00
43	Prabodh Chandra Mitra Scholarship Fund	23690310066504	27/06/2020 5.50%	98,968.00	98,968.00	98,968.00	27/06/2021	98,968.00
44	Siddhananda Memorial Lecture Fund	23690310006573	03/07/2020 5.50%	114,344.00	114,344.00	114,344.00	03/07/2021	114,344.00
45	BESU Endowment Fund	23690310006498	27/06/2020 5.50%	7,758,711.00	328,624.25	8,083,335.25	27/06/2021	8,192,210.00
46	BESU Endowment Fund	236903100111564	09/08/2020 5.00%	33,020.00	981.75	34,010.75	09/09/2021	34,712.00
47	B.E.C. (55) Scholarship Fund	23690310011577	09/09/2020 5.00%	2,125.00	63.00	2,188.00	09/10/2021	2,233.00
48	Bijoy Ashu Chair Professor Fund	10382034315	30/08/2018 7.00%	113,900.00	113,900.00	327,800.00	30/08/2019	113,900.00
49	Bijoy Ashu Chair Professor Fund	34205796198	15/06/2020 6.00%	7,540,177.30	245,460.71	7,785,646.71	15/06/2021	7,850,244.00
50	Bijoy Ashu Chair Professor Fund	34205799520	15/06/2020 6.00%	7,540,176.00	245,471.29	7,785,647.29	15/06/2021	7,850,245.00
51	Alpona Banerjee Memorial Endowment Fund	1532100196333	08/02/2017 6.50%	9,902,000.00	9,902,000.00	9,902,000.00	08/02/2027	9,902,000.00
52	Provati Chandra Neogi Memorial Endowment Fund - 1	1532100243766	02/06/2018 6.00%	450,000.00	450,000.00	900,000.00	02/06/2028	450,000.00
53	Provati Chandra Neogi Memorial Endowment Fund - 2	1532100255615	20/09/2018 6.00%	2,250,000.00	2,250,000.00	4,500,000.00	20/09/2028	2,250,000.00
54	Tarun Kanti Ghosh Memorial	1532100286817	30/07/2019 6.00%	347,532.00	347,532.00	347,532.00	30/07/2024	347,532.00
				<b>52,621,750.57</b>	<b>1,791,349.87</b>	<b>54,413,100.44</b>		<b>54,663,408.99</b>
							<b>GRAND TOTAL :</b>	

**42 ANNEXURE - II****EARMARKED FUND FIXED DEPOSITS AS AT 31.03.2021**

Sl. No.	Name of Endowment Fund	Account No.	Date of Deposit / Reinvestment	Rate of Interest	Closing Balance as on 31.03.2021		Date of Maturity	Maturity Value
					Principal Amt.	Accumulated Interest		
1	BESUS Project Fund	15321000055985	09/03/2018	6.16%	2,500,000.00	2,500,000.00	09/03/2021	2,500,000.00
2	BESUS Project Fund	15321000055994	09/03/2018	6.16%	2,500,000.00	2,500,000.00	09/03/2021	2,500,000.00
3	BESUS Project Fund	15321000056009	09/03/2018	6.16%	2,500,000.00	2,500,000.00	09/03/2021	2,500,000.00
4	BESUS Project Fund	15321000056018	09/03/2018	6.16%	2,500,000.00	2,500,000.00	09/03/2021	2,500,000.00
5	BESUS Project Fund	15321000056027	09/03/2018	6.16%	2,500,000.00	2,500,000.00	09/03/2021	2,500,000.00
6	BESUS Project Fund	15321000064113	25/03/2018	4.25%	14,581,422.22	1,584,239.66	16,165,661.88	25/03/2021
7	BESUS Project Fund	15321000064177	25/03/2018	4.25%	14,581,422.22	1,584,239.66	16,165,661.88	25/03/2021
8	BESUS Project Fund	15321000064440	25/03/2018	4.25%	14,581,422.22	1,584,239.66	16,165,661.88	25/03/2021
9	BESUS Project Fund	15321000064419	28/09/2018	6.26%	9,021,699.00	9,021,699.00	28/09/2021	9,021,699.00
10	BECE International Symposium	1532100184465	29/06/2019	6.25%	263,506.74	28,253.77	291,760.51	29/03/2022
11	BECE International Symposium	1532100184458	29/06/2019	6.25%	1,011,839.49	108,464.24	1,120,363.73	29/03/2022
		<b>SUB TOTAL</b>			66,541,331.89	4,752,718.99	71,436,798.88	72,693,636.11
12	BESUS Overhead Fund	1532100036786	09/03/2020	6.25%	500,000.00	500,000.00	09/03/2023	500,000.00
13	BESUS Overhead Fund	1532100036795	09/03/2020	6.25%	500,000.00	500,000.00	09/03/2023	500,000.00
14	BESUS Overhead Fund	1532100036801	09/03/2020	6.25%	500,000.00	500,000.00	09/03/2023	500,000.00
15	BESUS Overhead Fund	1532100036810	09/03/2020	6.25%	500,000.00	500,000.00	09/03/2023	500,000.00
16	BESUS Overhead Fund	1532100036829	09/03/2020	6.25%	500,000.00	500,000.00	09/03/2023	500,000.00
17	BESUS Overhead Fund	1532100036838	09/03/2020	6.25%	500,000.00	500,000.00	09/03/2023	500,000.00
18	BESUS Overhead Fund	1532100046569	29/09/2018	6.16%	521,810.00	521,810.00	29/09/2021	521,810.00
19	BESUS Overhead Fund	1532100045702	28/09/2018	6.16%	521,761.00	521,761.00	28/09/2021	521,761.00
20	BESUS Overhead Fund	1532100050193	21/11/2020	5.34%	\$181,872.56	157,452.51	8,339,325.07	21/11/2023
21	BESUS Overhead Fund	1532100053924	28/09/2018	6.16%	\$46,009.58	132,687.20	978,698.78	28/09/2021
22	BESUS Overhead Fund	1532100053933	28/09/2018	6.16%	1,692,019.15	268,752.48	1,960,771.61	28/09/2021
23	BESUS Overhead Fund	1532100053938	14/03/2021	5.34%	5,082,116.00	293,979.00	5,386,095.00	14/03/2024
24	BESUS Overhead Fund	1532100053967	14/03/2018	6.16%	4,254,325.96	832,223.47	5,086,549.43	14/03/2021
25	BESUS Overhead Fund	1532100053919	29/03/2019	6.25%	6,292,742.88	652,173.62	6,944,916.50	29/03/2022
26	BESUS Overhead Fund	1532100071390	17/12/2018	6.25%	7,884,750.29	1,160,397.55	9,045,147.84	17/12/2021
27	BESUS Overhead Fund	1532100071406	17/12/2018	6.25%	7,884,750.29	1,160,397.55	9,045,147.84	17/12/2021
28	BESUS Overhead Fund	1532100071372	17/12/2018	6.25%	1,576,948.50	241,844.11	1,818,792.61	17/12/2021
29	BESUS Overhead Fund	1532100103414	19/02/2020	6.25%	6,975,862.97	475,481.26	7,451,344.23	19/02/2023
30	BESUS Overhead Fund	1532100103484	31/03/2020	6.25%	3,100,383.54	211,325.00	3,311,708.54	31/03/2023
31	BESUS Overhead Fund	1532100120920	22/10/2017	6.00%	9,652,659.75	1,886,231.74	11,540,871.49	22/10/2020
		<b>SUB TOTAL</b>			67,477,982.47	7,474,945.46	74,952,937.93	79,902,549.60

**43 ANNEXURE -II (CONTD) EARMARKED FUND FIXED DEPOSITS AS AT 31.03.2021 (CONTD.)**

Sl. No.	Name of Endowment Fund	Account No.	Date of Deposit / Reinvestment	Rate of Interest	Closing Balance as on 31.03.2021			Date of Maturity	Maturity Value
					Principal Amt.	Accumulated Interest	Total		
32	BESUS Foundation	23690310007990	28/04/2020	5.55%	1,801,716.98	103,526.33	1,905,245.31	29/01/2023	2,112,501.98
33	BESUS Foundation	236903100014575	06/07/2019	6.50%	7,456.00	911.54	8,375.54	12/04/2021	8,409.00
34	Corpus Fund	23690310006495	17/06/2020	5.50%	11,375,245.38	505,533.54	11,881,482.52	17/06/2021	12,014,544.38
35	Corpus Fund	1532100142847	12/09/2018	6.25%	795,934.07	56,551.49	851,485.56	12/09/2019	795,034.07
36	Maintenance Fund	23690310006436	17/06/2020	5.50%	18,448,332.37	819,980.82	19,268,313.59	17/06/2021	19,454,110.37
37	Maintenance Fund	1532100142856	12/09/2018	6.25%	1,085,925.82	116,336.82	1,202,661.74	12/09/2019	1,185,951.82
38	Equipment Replacement Fund	1532100142823	12/09/2018	6.25%	650,914.33	41,645.80	692,559.53	12/08/2019	692,559.53
39	Faculty Development Fund	1532100142830	12/09/2018	6.25%	692,559.93	67,881.41	760,441.34	12/08/2019	692,559.93
40	Staff Development Fund	23690310006412	17/06/2020	5.50%	9,169,287.34	407,556.33	9,576,845.87	17/06/2021	9,584,095.34
41	Deactivation Fund	23690310006429	17/06/2020	5.50%	7,993,526.64	355,516.90	8,354,047.54	17/06/2021	8,447,664.64
42	B.E. College - General Fund A/c	1532100046632	14/09/2017	6.00%	10,000,000.00	-	10,000,000.00	14/09/2020	10,000,000.00
43	BEC General Fund	23690310008577	13/05/2020	5.75%	91,665.66	4,334.25	96,402.91	08/02/2023	107,414.66
44	BEC General Fund	23690310011469	07/07/2019	6.50%	1,972.00	220.53	2,192.53	27/05/2021	2,227.00
45	BEC General Fund	23690310008440	13/05/2020	5.75%	7,572,530.00	407,731.85	7,980,261.85	08/02/2023	8,553,972.00
46	BEC General Fund	23690310011515	05/07/2019	6.50%	15,998.00	1,795.82	17,793.82	23/05/2021	18,062.00
47	BEC General Fund	23690310008333	13/05/2020	5.75%	6,588,093.00	354,726.27	6,942,819.27	08/02/2023	7,702,947.00
48	BEC General Fund	23690340007983	28/04/2020	3.60%	65,185,129.00	2,138,762.82	67,323,911.82	23/01/2023	71,906,955.00
49	BEC General Fund	23690310011545	05/06/2019	6.50%	14,359.00	17,932.27	161,131.27	08/04/2021	161,725.00
50	BEC General Fund	23690310007976	28/04/2020	3.60%	24,046,070.00	786,965.86	24,835,035.86	23/01/2023	26,525,877.00
51	BEC General Fund	23690310011638	05/06/2019	6.50%	52,972.00	6,457.40	59,439.40	08/04/2021	59,658.00
52	BEC General Fund	23690310007969	28/04/2020	3.60%	54,795,509.00	1,796,560.32	56,552,069.32	23/01/2023	60,401,843.00
53	BEC General Fund	23690310011621	05/06/2019	6.50%	120,623.00	14,045.33	134,668.33	08/04/2021	135,349.00
54	BEC General Fund	23690310007952	28/04/2020	3.60%	28,971,169.00	995,826.00	29,966,995.00	23/01/2023	31,058,647.00
55	BEC General Fund	23690310011614	05/06/2019	6.50%	63,211.00	7,330.96	71,151.96	08/04/2021	71,877.00
56	BEC General Fund	23690310007945	28/04/2020	5.55%	14,405,583.00	832,355.87	15,317,918.87	23/01/2023	16,081,650.00
57	BEC General Fund	23690310007938	28/04/2020	3.60%	24,635,494.00	845,452.33	25,471,946.33	23/01/2023	27,164,851.00
58	BEC General Fund	23690310011591	05/06/2019	6.50%	54,248.00	6,315.83	60,563.83	08/04/2021	61,096.00
59	Institute General Fund	23690310006061	13/05/2020	3.30%	42,218,780.00	1,234,236.90	43,453,016.50	13/05/2021	43,212,356.00
60	Institute General Fund	23690310011134	11/09/2020	4.70%	90,415.00	2,281.71	92,696.71	24/04/2021	91,077.00
61	IEST-Student Fee Collection Fund	23690310017302	31/10/2020	3.25%	145,509,379.00	2,080,922.90	147,570,301.90	31/10/2023	160,348,021.00
62	BESU	34087766649	05/02/2021	5.00%	8,260,802.00	70,141.50	8,330,943.50	05/02/2022	8,481,651.00

63	BESU	34087253564	05/02/2021	5.00%	₹ 260,802.00	70,141.50	₹ 310,943.50	05/02/2022	₹ 681,651.00
64	BESU	340872455125	05/02/2021	5.00%	₹ 260,802.00	70,141.50	₹ 310,943.50	05/02/2022	₹ 681,651.00
65	BESU	340872411653	05/02/2021	5.00%	₹ 260,801.00	70,141.50	₹ 310,942.50	05/02/2022	₹ 681,650.00
66	BESU	34087247413	05/02/2021	5.00%	₹ 260,801.00	70,141.50	₹ 310,941.50	05/02/2022	₹ 681,650.00
67	BESU	34087250572	05/02/2021	5.00%	₹ 260,801.00	70,141.50	₹ 310,942.50	05/02/2022	₹ 681,650.00
68	BESU	31683100570	12/06/2019	6.75%	₹ 76,663.00	33,633.15	₹ 110,466.15	08/05/2020	*
69	BESU	31744729481	01/11/2016	7.00%	₹ 9,901,033.00	465,051.65	₹ 7,66,084.65	29/07/2019	-
<b>SUB TOTAL :</b>					<b>₹ 36,261,370.52</b>	<b>₹ 16,912,354.81</b>	<b>₹ 51,179,725.33</b>		<b>₹ 73,393,933.12</b>
<b>GRAND TOTAL :</b>					<b>₹ 70,280,694.88</b>	<b>₹ 27,140,019.26</b>	<b>₹ 69,557,462.15</b>		<b>₹ 75,989,118.83</b>

**44 ANNEXURE - III**  
**TERM DEPOSITS WITH BANK AS AT 31.03.2021**

Sl. No.	Name of Fund	Account No.	Date of Deposit / Reinvestment	Rate of Interest	Closing Balance as on 31.03.2021			Date of Maturity	Maturity Value
					Principal Amt.	Accumulated Int.	TOTAL		
1	PDSIT	003414136321	06-04-2020	13.921,034.00	905,647.67	14,829,681.67	07/04/2023	16,646,977.00	
2	PDSIT	003414151586	05-03-2019	8,286.00	1,316.67	9,602.67	06/03/2022	10,261.00	
	<b>GRAND TOTAL :</b>								
				13,929,320.00	909,964.34	14,839,284.34		16,657,238.00	

**ANNEXURE - IV**  
**TERM DEPOSITS WITH BANK AS AT 31.03.2021**

Sl. No.	Name of Fund	Account No.	Date of Deposit / Reinvestment	Rate of Interest	Closing Balance as on 31.03.2021			Date of Maturity	Maturity Value
					Principal Amt.	Accumulated Int.	TOTAL		
1	BECSONS	23690310006399	17/06/2020	5.50%	3,141,719.40	139,642.88	3,281,362.28	17/06/2021	3,318,110.40
2	BECSONS	1532100058900	07/02/2017	6.50%	9,900,000.00		9,900,000.00	07/11/2021	9,900,000.00
3	BECSONS	1532100058919	07/02/2017	6.50%	2,600,000.00		2,600,000.00	07/11/2021	2,600,000.00
4	PDSIT	003414101445	30/08/2019		68,864.00	8,082.92	74,946.92	31/08/2022	82,179.00
	<b>GRAND TOTAL :</b>								
					15,708,583.40	147,725.80	15,856,309.20		15,900,289.40

**45 ANNEXURE - V**

**BANK BALANCE IN CURRENT A/C**

Sl. No.	Name of the Bank	Account No.	Type of Account	Head of Account	Closing Balance as on 31.03.2021
1	U.B.I.	0171050031501	C/A	BEC General Fund	2,716,465.38
2	U.B.I.	0171050031510	C/A	BEC Development Fund	650,501.71
3	U.B.I.	0171050031528	C/A	BEC Employees Benefit Fund	568,829.87
4	U.B.I.	0171050031536	C/A	BEC Miscellaneous Fund	(458,667.57)
5	U.B.I.	Sweep A/c 31501	C/A	BEC General Fund	54,700,000.00
6	U.B.I.	Sweep A/c 31510	C/A	BEC Development Fund	17,840,000.00
7	U.B.I.	Sweep A/c 31528	C/A	BEC Employees Benefit Fund	6,800,000.00
8	U.B.I.	Sweep A/c 31536	C/A	BEC Miscellaneous Fund	90,550,000.00
9	U.B.I.	171050031293	C/A	QIP	33,936.00
10	S.B.I., Howrah	31906556458	C/A	Prof. Tax	13,080,011.00
				<b>TOTAL :</b>	<b>186,481,076.39</b>

**46 ANNEXURE - VI**

**BANK BALANCE IN SAVINGS A/C**

Sl. No.	Name of the Bank	Account No.	Type of Account	Head of Account	Closing Balance as on 31.03.2021
1	U.B.I.	171010375799	S.B.	Corpus Fund	3,366,796.25
2	U.B.I.	1532010020688	S.B.	Faculty Development	33,854.00
3	U.B.I.	1532010020679	S.B.	Equipment Replacement	33,854.00
4	U.B.I.	0171010375829	S.B.	Maintenance Fund	47,687.78
5	U.B.I.	0171010375811	S.B.	Depreciation Fund	91,051.00
6	U.B.I.	0171010375802	S.B.	Staff Development	2,210.00
7	U.B.I.	1532010006354	S.B.	BESUS Foundation	92,231.91
8	U.B.I.	Sweep A/c 6354	S.B.	BESUS Foundation	16,607,000.00
9	U.B.I.	1532010023269	S.B.	Schools & Centre	2,493.00
10	ICICI	003401010516	S.B.	P.D.S.I.T.	19,792.00
11	U.B.I.	1532010020828	S.B.	Composite A/c	18,495.60
12	U.B.I.	0171010348333	S.B.	B.E.C. Scholarship	977,647.93
13	U.B.I.	0171010348350	S.B.	B.E.C. Prize	242,790.67
14	U.B.I.	1532010029740	S.B.	BESUS - NSS A/C	382,527.30
15	U.B.I.	1532010077288	S.B.	Visvesvaraya PHD Fellowship	1,478,760.52
16	U.B.I.	1532010079772	S.B.	GIAN Courses	146,324.30
17	U.B.I.	1532010079763	S.B.	Students Welfare Fund	1,006,407.35
18	U.C.O.	23690110000489	S.B.	Tuition Fees	1,175,679.06
19	U.C.O.	Sweep A/c 489	S.B.	Tuition Fees	379,852,904.00
20	U.C.O.	23690110000960	S.B.	Academic Services	6,058,320.33
21	U.C.O.	23690110040461	S.B.	Prof. Amiya Basu Endowment	574,409.38
22	S.B.I. Shalimar	1381942908	S.B.	Bijou Ashu Prof.	893,478.85
23	S.B.I., BESUS	33725727857	S.B.	I.I.E.S.T.	171,968,448.62
24	S.B.I., BESUS	39212800500	S.B.	Alumni Cell IIEST, Shibpur	9,980,946.00
25	U.B.I.	1532010005180	S.B.	Research & Consultancy Fund	(14,486,269.12)
26	U.B.I.	Sweep A/c 5180	S.B.	Research & Consultancy Fund	305,935,000.00
27	U.B.I.	0171010301001	S.B.	BE College Testing Fees Fund	123,661.30
28	U.B.I.	Sweep A/c 301001	S.B.	BE College Testing Fees Fund	4,517,000.00
29	U.B.I.	1532010005173	S.B.	Institutional Development Fund	12,334,265.08
30	U.B.I.	Sweep A/c 5173	S.B.	Institutional Development Fund	137,032,000.00
31	U.B.I.	1532010071619	S.B.	SMDP - C2SD	1,599,257.37
32	U.B.I.	1532010084491	S.B.	BCMFRL of Homoeopathy	36,700,001.60
33	U.B.I.	1532010011963	S.B.	Continuing Education Centre	686,379.88
34	U.B.I.	1532010089955	S.B.	ISDCS	56,589.58
				<b>TOTAL :</b>	<b>1,079,551,995.54</b>

**45 LIST OF UNADJUSTED ADVANCE AS ON 31.03.2021 (ANNEXURE - VII)**

<b>Sl. No.</b>	<b>Name of the Employees</b>	<b>Closing Balance as on 31.03.2021</b>
1	Golden Jubilee Celebration Committee of E & TC	200,000.00
2	Prasanta Kumar Nandi	67,357.00
3	Santanu Chattopadhyay	94,500.00
4	Santi Prasad Maity	6,000.00
		<b>367,857.00</b>

**46 ANNEXURE - VIII**

**LIST OF UNADJUSTED ADVANCE GIVEN TO SUPPLIERS AS ON 31.03.2021**

<b>Sl. No.</b>	<b>Name of the Suppliers</b>	<b>Closing Balance as on 31.03.2021</b>
1	India Tourism Development Corporation Ltd.	100,000.00
	<b>TOTAL :</b>	<b>100,000.00</b>

**47 ANNEXURE - IX**

**LIST OF UNADJUSTED ADVANCE GIVEN TO STUDENTS / RESEARCH SCHOLARS AS ON  
31.03.2021**

<b>Sl. No.</b>	<b>Name of the Student / Research Scholar</b>	<b>Closing Balance as on 31.03.2021</b>
1	Nilesh Mondal	100,000.00
	<b>TOTAL :</b>	<b>100,000.00</b>

**SPEED POST**

भारतीय लेखा तथा लेखा-परीक्षा विभाग  
महा निदेशक, लेखा-परीक्षा का कार्यालय,  
केन्द्रीय, कोलकाता

**INDIAN AUDIT AND ACCOUNTS DEPARTMENT  
OFFICE OF THE DIRECTOR GENERAL OF AUDIT,  
CENTRAL, KOLKATA.**

**CONFIDENTIAL**No: OA II (AB)/AR/2020-21/IEST/ 256Date: 11.10.2021

A copy of the Separate Audit Report, alongwith Annexure, on the accounts of the Indian Institute of Engineering Science and Technology, Shibpur, Howrah, Kolkata, for the financial year 2020-21 is forwarded to **the Director, Indian Institute of Engineering Science and Technology, Shibpur, Howrah, P.O.-Botanic Garden, Howrah, 711103** for information and necessary action.

Arrangement may please be made for preparation of Hindi Version of the Separate Audit Report, with Annexure, at your end, and sending the same directly to the Ministry.

It may please be ensured that the Audited Accounts and the Separate Audit Report, along with Annexure, are placed before the apex body, for consideration and adoption, before the same are sent to the Government for being placed in the Parliament.

A copy of the printed Annual Report, for the financial years 2018-19 to 2020-21 (both English and Hindi Version), containing the Audited Accounts and the Separate Audit Report, along with Annexure, as laid before the Parliament, may please be forwarded to this Office, for necessary action at this end.

Encl.: As stated

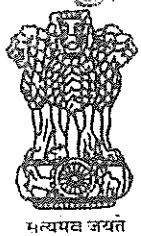
Dy. Director (Inspection)

Registration:  
M.T.: DR (Finance)  
For "n.a.t."  
13.10.2021

जि. आई. प्रेस विल्डिंग, 8 किरण शंकर राय रोड (1म मंजिल), कोलकाता-700001

Govt. of India Press Building, 8, Kiran Sankar Roy Road, Kolkata- 700001  
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SPED POST



भारतीय लेखा तथा लेखा-परीक्षा विभाग  
महा निदेशक, लेखा-परीक्षा का कार्यालय,  
केन्द्रीय, कोलकाता

INDIAN AUDIT AND ACCOUNTS DEPARTMENT  
OFFICE OF THE DIRECTOR GENERAL OF AUDIT,  
CENTRAL, KOLKATA.

CONFIDENTIAL

No: OA II (AB)/AR/2020-21/IEST/ 255

Date: 11.10.2021

To  
The Secretary,  
Ministry of Education,  
Department of Higher Education,  
Technical Section-I, Shastri Bhawan,  
New Delhi - 110001

Subject: Separate Audit Report on the accounts of the Indian Institute of Engineering Science and Technology, Shibpur, Howrah, for the financial year 2020-21

Sir,

I am to forward herewith the Separate Audit Report, in the prescribed format, on the accounts of the Indian Institute of Engineering Science and Technology, Shibpur, Howrah, for the financial year 2020-21. A copy of the annual accounts of the organisation, for the financial year 2020-21, is also enclosed.

2. A copy of the Separate Audit Report (both English and Hindi Version), as presented before the Parliament, may please be forwarded to this office, for necessary action at this end.

3. The dates of laying of the audited accounts and the Separate Audit Report, for the financial years 2018-19 to 2020-21, on the Tables of both the Houses of Parliament, may also please be communicated to this office.

Yours faithfully,

*Deepak Narain*  
(Deepak Narain)  
Director General of Audit  
Central: Kolkata

Encl.: As stated

जि. आई. प्रेस बिल्डिंग, ८ किरण शंकर राय रोड (१म मंजिल), कोलकाता-700001

Govt. of India Press Building, 8, Kiran Sankar Roy Road, Kolkata- 700001  
Phone : 2254-0221, (Gram: ACCOUNTCENT) POST BOX: 2699, Fax No.: 033 22135377

**Separate Audit Report of the Comptroller & Auditor General of India on the  
Accounts of the Indian Institute of Engineering Science and Technology,  
Shibpur, Howrah, for the financial year ended 31 March 2021**

We have audited the attached Balance Sheet of the Indian Institute of Engineering Science and Technology, Shibpur, Howrah, as at 31 March 2021, the Income and Expenditure Account and Receipts and Payments Account for the year ended on that date, under Section 19(2) of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971, read with Section 22(2) of the National Institute of Technology, Science Education and Research (Amendment) Act, 2014. These financial statements are the responsibility of the Institute's Management. Our responsibility is to express an opinion on these financial statements, based on our audit.

2. This separate Audit Report contains the comments of the Comptroller and Auditor General of India (CAG) on the accounting treatment only, with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms etc. Audit observations on financial transactions in regard to compliance with extent Laws, Rules & Regulations (i.e. Propriety and Regularity aspects) and efficiency-cum-performance aspects etc., if any, are reported through Inspection Reports/CAG's Audit Reports separately.

3. We have conducted our audit in accordance with the Auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the Management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.

4. Based on our audit, we report that:

- (i) We have obtained all the information and explanations, which, to the best of our knowledge and belief, were necessary for the purpose of our audit;

(ii) The Balance Sheet and Income and Expenditure Account/ Receipts and Payments Account, dealt with in this report, have been drawn up in terms of the format prescribed by the Ministry of Education, Government of India, vide order No. 29-4/2012-FD dated 17 April 2015.

(iii) In our opinion, proper books of accounts and other relevant records have been maintained by the Indian Institute of Engineering Science and Technology, Shibpur, Howrah, as required under Section 22(2) of the National Institute of Technology, Science Education and Research (Amendment) Act, 2014, insofar as it appears from our examination of books.

(iv) We further report that:

#### **Comments on Accounts**

##### **A. Balance Sheet**

###### **1.1 Liabilities**

###### **1.1.1 Corpus/Capital Fund (Schedule-1): ₹248.56 crore**

The above head, as well as ‘Fixed Assets (Schedule-4)’, were overstated by ₹1.74 crore, due to capitalization of assets worth ₹1.74 crore, procured out of the ‘Sponsored Projects’ Fund, even though their ownership had not been transferred to the Institute. Despite this having been highlighted in the previous year’s Audit Report as well, the Institute did not take corrective action in this regard.

###### **1.1.2 Designated/Earmarked/Endowment Funds (Schedule-2): ₹87.52 crore**

In deviation from the Format of Accounts prescribed by the MoE, the Institute had earlier transferred an amount of ₹47.47 crore (₹45.24 crore + accrued interest: ₹2.23 crore), from the ‘Corpus/Capital Fund’ (Schedule-1), to the ‘Corpus Fund-Future Development’ (Schedule-2), during the financial year 2019-20. This diversion of funds, from the ‘Corpus/Capital Fund’, to the new ‘Earmarked Fund’, constituted a violation of the Format of Accounts prescribed by the MoE. The Institute had not taken corrective action in this regard, despite this having been highlighted in the previous year’s Audit Report. During the financial year 2020-21, interest of

₹2.19 crore accrued in the ‘Corpus Fund-Future Development’. This further resulted in overstatement of the ‘Designated/Earmarked/Endowment Funds (Schedule-2)’ and understatement of the ‘Corpus/Capital Fund’ (Schedule-I), by ₹49.66 crore each.

## **1.2 Assets**

### **1.2.1 Fixed Assets (Schedule-4): ₹137.89 crore**

An amount of ₹4.74 lakh, being compensation paid for erection of a temporary pandal, was added to the sub-head ‘Building’, under the head ‘Fixed Assets’. This resulted in overstatement of the ‘Fixed Assets’ by ₹4.74 lakh, with corresponding overstatement of the ‘Corpus/Capital Fund’, by the same amount.

### **1.2.2 Current Assets (Schedule-7): ₹153.27 crore**

The Institute, in deviation from the Format of Accounts prescribed by the MoE, exhibited an amount of ₹25.10 crore, being excess expenditure over grants received, as ‘MoE Grant Receivable’, under ‘Grants/Subsidies (Schedule-10)’, instead of adjusting the same from the internal receipts of the Institute. This resulted in overstatement of the ‘Current Assets’ (Schedule-7), as well as the ‘Corpus/Capital Fund’ (Schedule-1), by ₹25.10 crore each.

## **B. Income and Expenditure**

### **2.1. Expenditure**

#### **2.1.1 Depreciation (Sch-4): ₹12.13 crore**

The Institute, under the head ‘Laboratory Equipment and Apparatus’, had adjusted excess ledger balances, amounting to ₹37.01 lakh, pertaining to the financial year 2019-20, in the financial year 2020-21. However, the corresponding depreciation, which had already been charged in the financial year 2019-20, was not adjusted in the ledger. This resulted in overstatement of the above head, and understatement of the Excess of Income over Expenditure, by ₹2.96 lakh each.

**2.1.2** The Institute charged depreciation on the amount of ₹4.74 lakh, provided under the sub-head ‘Building’, in regard to compensation paid for erection of a temporary pandal (Para

1.2.1 above). This resulted in excess charging of depreciation, amounting to ₹0.09 lakh. It further resulted in understatement of the Excess of Income over Expenditure, by same amount.

#### **C. Receipts & Payments Account**

3.1 The Institute exhibited an amount of ₹1.57 crore, as ‘Cash & Bank Balances: in Term Deposit Accounts’, under ‘Current Assets’ (Schedule-7), without reflecting this amount under the ‘Closing Balances’ head, in the ‘Receipt & Payment Account’. This is not as per the MoE format. This resulted in understatement of the both-Receipts, as well as Payments-by ₹1.57 crore each.

#### **D. General**

4.1 Despite mention in earlier audit reports, Retirement Benefits were not provided as per the Actuarial method of valuation, in terms of AS-15 and the Format of Accounts prescribed by the MoE.

#### **E. Grants-in-Aid**

The Institute is mainly funded by Grants-in-Aid from the Ministry of Education, Government of India. During the financial year 2020-21, it received grants of ₹149.43 crore (GIA-General: ₹37.14 crore; GIA-Salaries: ₹99.29 crore and GIA-Capital: ₹13.00 crore). Further, the interest earned on government grants amounted to ₹3.90 lakh. Out of the total grants of ₹149.46 crore so available, it spent ₹139.45 crore (Revenue Expenditure: ₹131.10 crore and Capital Expenditure: ₹8.35 crore), leaving an unspent balance of ₹10.01 crore.

#### **F. Net Impact:**

The net impact of the comments given in the preceding paragraphs is that both the Assets and Liabilities were overstated by ₹26.89 crore each, while the Excess of Income over Expenditure (‘Surplus’) was overstated by ₹3.05 lakh, for the year ended on 31st March, 2021.

#### **G. Management Letter**

Deficiencies not included in the Audit Report have been brought to the notice of the Director, IIEST, Shibpur, Howrah, through a management letter, issued separately, for remedial/corrective action.

(v) Subject to our observations in the preceding paragraphs, we report that the Balance Sheet, Income and Expenditure Account and Receipts and Payments Account, dealt with by this report, are in agreement with the books of accounts.

(vi) In our opinion, and to the best of our information, and according to the explanations given to us, the said financial statements, read together with the Accounting Policies and Notes on Accounts, and subject to the significant matters stated above and other matters mentioned in Annexure to this Audit Report, give a true and fair view and are in conformity with accounting principles generally accepted in India:

- a. insofar as it relates to the Balance Sheet, of the state of affairs of the Indian Institute of Engineering Science and Technology, Shibpur, Howrah, as at 31 March 2021 and
- b. insofar as it relates to the Income and Expenditure Account of the **Surplus**, for the year ended on that date.

**For and on behalf of the C&AG of India**

*Deepak Narain*  
**(Deepak Narain)**  
**Director General of Audit**  
**(Central), Kolkata**

**Place: Kolkata**

**Date: 11.10.2021**

## **Annexure**

### **A. Adequacy of the Internal Audit System**

The Internal Audit System of the Institute is inadequate, as it does not have any approved Internal Audit Manual, despite the existence of an Internal Audit Wing.

### **B. Adequacy of the Internal Control System**

- i) The Institute does not have rotation of duties for its employees dealing with Cash, Stocks and other valuables.
- ii) Cheque Protectors are not being used.
- iii) Identity Cards of the employees are not being periodically renewed. They are also not being received back at the time the employees cease to be in service, or prior to final payments being made to them.
- iv) The Institute does not have any Centralized Purchase Department. It is also not ensuring that purchases are made only from approved suppliers.
- v) None of the purchase departments in the Institute is compiling a list of pending purchase orders, at least once every quarter.
- vi) Receipts of material are not being evidenced by pre-numbered Goods Received Notes.
- vii) There is no system of limited access in the assigned areas, for stocks stored.
- viii) Confirmation of the balances under ‘Loans & Advances’ is not being obtained periodically.
- ix) As mentioned in the previous Audit Report, the deficiencies in the customized software ‘Campus Connect’, relating to linking of the Annual Accounts with the Ledger and physical vouchers, have led to notable difficulties and problems, in locating the audit trails of transactions.

### **C. System of Physical Verification of Fixed Assets**

The Institute is not maintaining any dedicated ‘Fixed Assets Register’, in the format prescribed under GFR-22 (GFR 2017). It is also not maintaining a detailed list of its Fixed Assets. Consequently, Audit could not ascertain the actual position and value of all the Fixed Assets of

the Institute. The Institute has been conducting physical verification of its Fixed Assets, for the financial years from 2014-15 to 2020-21.

**D. Regularity in payment of Statutory Dues:**

The Institute is regular in payment of its Statutory Dues.







भारतीय अभियांत्रिकी विज्ञान और प्रौद्योगिकी संस्थान,  
शिबपुर

**Indian Institute of Engineering Science and  
Technology, Shibpur**