

**INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES),  
DHANBAD**

**MINUTES OF THE 17<sup>TH</sup> MEETING OF THE BOARD OF GOVERNORS HELD ON  
24 MARCH 2021 AT 3.00 PM THROUGH ONLINE MODE**

**Members Present:**

|   |                   |
|---|-------------------|
| Prof PremVrat, Chairperson, BOG, IIT (ISM)      | : Chairperson     |
| Prof Rajiv Shekhar, Director, IIT (ISM)         | : Member          |
| Prof Shailendra Singh, Director, IIM-Ranchi     | : Member          |
| Prof Subodh Kumar Maiti, IIT (ISM)              | : Member          |
| Prof Atul Kumar Varma, IIT (ISM)                | : Member          |
| Prof J K Pattanayak, Deputy Director, IIT (ISM) | : Special Invitee |
| Shri Prabodh Pandey, Registrar (Actg.)          | : Secretary       |

Leave of absence was granted to the following:

|   |          |
|---|----------|
| Shri Rakesh Ranjan, Additional Secretary (TE), MOE, GOI | : Member |
| Prof Pallab Banerji, IIT Kharagpur                      | : Member |
| Shri Gautam N Mehra, CMD, Savita Oil Technologies Ltd.  | : Member |

At the outset, the Chairperson welcomed all the members of the BOG. The Director informed the BOG about the untimely sad demise of Prof Sarita Kar, Assistant Professor, Deptt. of Humanities & Social Sciences on 24.03.2021. The Board observed silence of two minutes to pay homage to departed soul.

It was informed to the Board that for nominating a member in the Board as a representative of Govt. of Jharkhand in place of earlier member Prof Gopal Pathak, a letter was sent to the Chief Secretary, Govt. of Jharkhand on 12<sup>th</sup> January, 2021. Response of Govt. of Jharkhand is awaited.

Comments received vide letter F.No. 23-8/2021-TS-I dated 19<sup>th</sup> March, 2021 from Technical Section-I, MOE on the BOG agenda were presented and considered appropriately while discussing the respective agenda items.

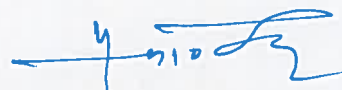
The following agenda items were deliberated.

**17/1 Confirmation of the Minutes of the 16<sup>th</sup> Meeting of the BOG of IIT(ISM) held on 28.12.2020**

The minutes of the 16<sup>th</sup> meeting of the BOG held on 28.12.2020 were confirmed as no comments were received earlier and no comments were offered on the floor by any member.

**17/2 Actions taken on the decisions of the 16<sup>th</sup> Meeting of the BOG held on 28.12.2020**

Actions taken on the decisions made in the 16<sup>th</sup> meeting of the BOG held on 28.12.2020 were noted.



**17/3 A report on pending actions on the decisions taken by the Board of Governors in its previous meetings**

The members were apprised about earlier decisions of Board which are not yet implemented since approval / concurrence of the Ministry of Education are awaited on them. The Board desired that the Institute should keep on pursuing with the Ministry for expeditious disposal of the matters. It has also been advised by the Board that the Consultant of the Institute deputed at IIF Delhi may be given the responsibility of pursuing the matters with MoE on regular basis.

**17/4 To review the Status Report of various ongoing construction works undertaken by CPWD at IIT(ISM)**

Shri Manoj Kumar, SE-cum-PD, IIT(ISM) Project Division, CPWD, Dhanbad presented the status of construction activities of six ongoing projects funded by HEFA and the other projects. CPWD has submitted following probable revised target dates for completion of seven projects:

| Name of the Project / Work                | Earlier target | New target |
|---|----------------|------------|
| 180 Nos. of Type V/VI Quarters            | :31.03.2021    | 30.06.2021 |
| 2000 seats (1000 rooms) Boys Hostel       | :30.06.2021    | 30.09.2021 |
| SITC of 3X4000 KVA Substation             | :06.04.2021    | 30.06.2021 |
| Augmentation of 33X11 Substation          | :30.05.2021    | 31.08.2021 |
| Campus Wide Network Revamp (Phase I&II)   | :31.03.2021    | 15.04.2021 |
| Centre of Excellence in Safety, OH and DM | : 31.01.2021   | 30.06.2021 |
| Central Research Facility                 | :31.01.2021    | 31.07.2021 |

In the course of discussion about the performance of CPWD, the issue of the power of reporting the APAR of the Project Manager, CPWD, IIT (ISM) Project Division should be given to the Director, IIT (ISM) Dhanbad to ensure accountability towards completion of the construction projects on time was deliberated. The Board was informed that the response from MoE / CPWD is yet to be received in this regard.

**17/5 Director's Report on progress of various activities**

The Director made a presentation on the performance of the Institute vis-à-vis other old IITs in respect of various key indicators viz. sponsored research projects, publications per faculty etc. The Director also apprised the Board about the new initiatives being taken by the Institute for improving the academic and research activities of the faculty members, which was well appreciated (the copy of the presentation made by the Director is attached). The Board also desired that the Professor-in-Charge of Placement needs to make more efforts in inviting the prospective recruiters to the Institute for improving the placement figures. Further, the Board advised that the facilities available at Delhi Centre and Kolkata Centre may be effectively utilized for facilitating placement activities.



The Board further advised that concerted efforts may be made in the niche departments of the Institute viz. Applied Geology, Applied Geophysics, Mining Engineering, Petroleum Engineering etc. so that the achievements of these departments can be showcased effectively and the Institute may be moving ahead of other IITs in the country in these specified areas. The Board desired that the Institute may take proactive measures to encourage the faculty members to aspire for various fellowship like INAE, INSA etc.

The Director also briefed the Board of Governors about the issues discussed and decided in the previous meeting of the IIT Council.

**17/6 Presentation on the activities of Technology Innovation Hub (TIH) – TEXMIN**

Prof Dheeraj Kumar, Dean (IRAA) made a presentation on the objectives, activities and goals of Technology Innovation Hub (TIH) – TEXMIN. The Board appreciated the initiatives.

**17/7 Ratification Items**

The BOG ratified the approvals accorded by the Chairperson, BOG as mentioned from Sl.No. 1 to 19 under heading A and 1 to 13 under heading B in the agenda item.

**17/8 To receive and consider the recommendations made by the 17<sup>th</sup> Finance Committee, meeting held on 24<sup>th</sup> March, 2021 at 11.00 A.M.**

Recommendations made by the Finance Committee in its 17<sup>th</sup> meeting held on 24<sup>th</sup> March, 2021 were received and approved by the BOG.

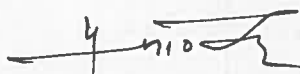
**17/9 Proposal for establishment of two centres: Centre for Water Resource Management (CWRM) and Centre for Blasting Technology & Research (CBTR) recommended by Senate**

A presentation was made by Prof Anshumali, Associate Professor, Department of Environmental Science & Engineering about the proposal for establishment of Centre for Water Resource Management (CWRM). The Board requested Dr Anshumali to contact with the concerned faculty members of the Centre of Water Resource Management of IIT Roorkee, which is the oldest centres in the country. After due deliberations, the Board approved the proposal for establishment of Centre for Water Resource Management (CWRM) at the Institute.

Prof A K Mishra, Deptt. of Mining Engineering has made a presentation on the proposal for establishment of Centre for Blasting Technology & Research (CBTR). While deliberated on the objectives, activities and goals of the Centre, the Board desired that the Centre needs to garner financial support from the PSUs, industries involved in mining and civil construction activities for managing its activities. The Board approved the proposal for establishment of Centre for Blasting Technology & Research (CBTR).

**17/10 List of students and scholars recommended by the Senate for the award of Degree**

List of students and Ph.D scholars recommended by the Senate for the award of Degree was approved by the BOG. On the request of the Director, the Board of Governors authorized the Chairman, BOG to approve the recommendations of the



Senate for award of degrees to the students which shall be submitted to the Board in its subsequent meetings for ratification.

**AOB**

**17/11(1) Approval of recommendations of the Selection Committee for Professor (HAG)**

The Director presented the minutes of meeting of the Selection Committee for the post of Professor (HAG) in different departments for approval of the BOG. The Selection Committee recommended the following candidates for Professor (HAG).

1. Prof A K Varma, Deptt. of Applied Geology
2. Prof N Suresh, Deptt. of Fuel Minerals and Metallurgical Engineering
3. Prof S Gupta, Deptt. of Mathematics & Computing
4. Prof R K Upadhyay, Deptt. of Mathematics & Computing
5. Prof V M S R Murthy, Deptt. of Mining Engineering
6. Prof J K Pattanayak, Deptt. Management Studies
7. Prof J Manam, Deptt. of Physics

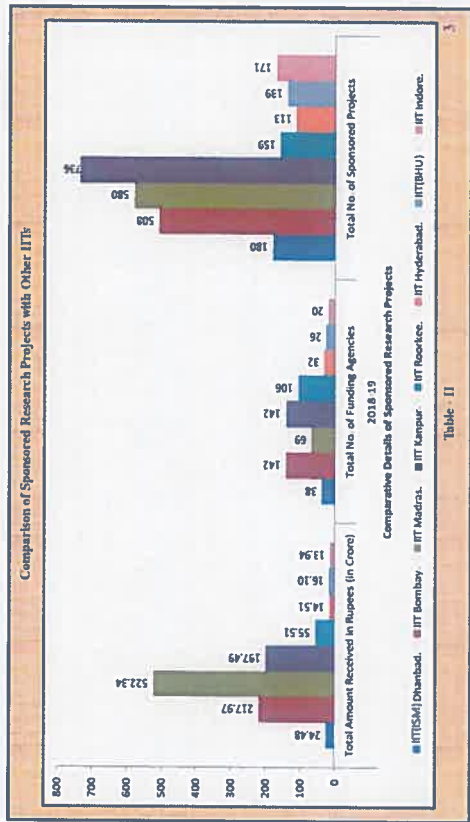
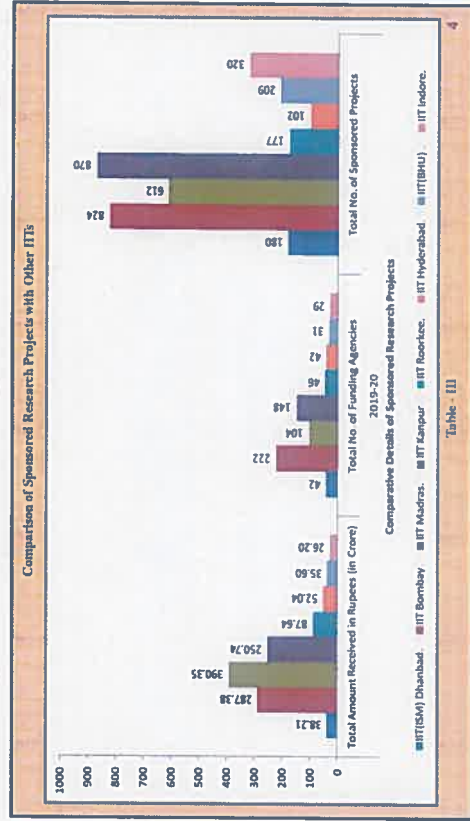
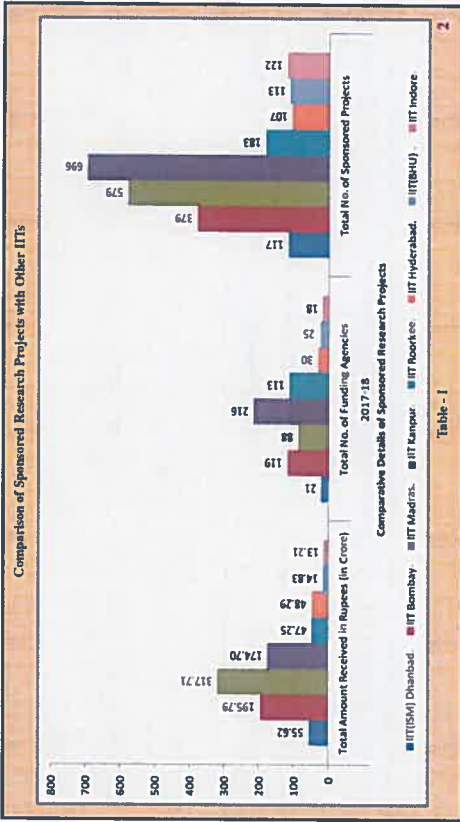
The Board approved the recommendations of the Selection Committee. The Board also clarified that the inter-se seniority of the Professor (HAG) will be same as per their seniority in Professor Grade.

The meeting ended with a vote of thanks to the Chair.



[Prabodh Pandey] 5.4.2021  
Registrar (Actg) &  
Secretary, BOG

# RESEARCH PERFORMANCE, NEW INITIATIVES & PLACEMENT





Comparison of Publication per Faculty with Other IITs

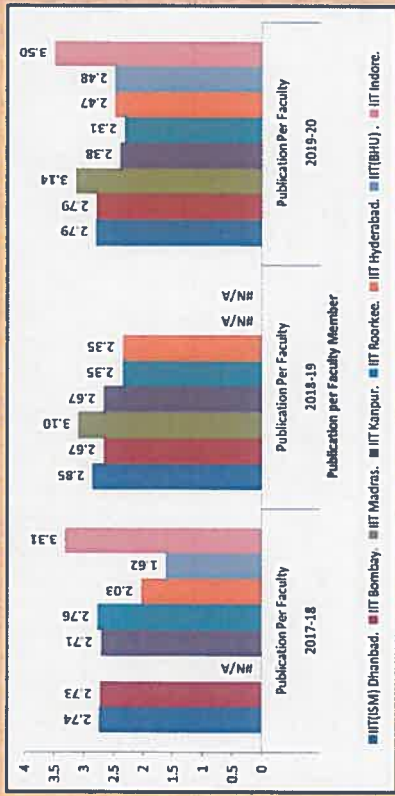


Table IV

## FIST

| Sr. No. | FY        | Department                       | Amount sanctioned (in lakhs) |
|---------|-----------|----------------------------------|------------------------------|
| 1       | 2019-2020 | Mining Machinery Engineering     | 152.00                       |
| 2       | 2019-2020 | Mechanical Engineering           | 187.00                       |
| 3       | 2018-2019 | Applied Geophysics               | 198.00                       |
| 4       | 2018-2019 | Computer Science and Engineering | 52.00                        |
| 5       | 2019-2020 | Electronics Engineering          | 190.00                       |
| 6       | 2019-2020 | Civil Engineering                | 191.00                       |
| 7       | 2019-2020 | Chemical Engineering             | 156.00                       |
| 8       | 2020-2021 | Mining Engineering               | 220.00                       |
| 9       | 2020-2021 | Applied Geology                  | 70.00                        |

## Improving PhD program

- Increased courses from 2 to 9.
- Introduced comprehensive examination.
- Introduced research proposal seminar.
- Thesis unit a part of course curriculum
- One Q1/Q2 (WoS) paper required for thesis submission.
- Plagiarism Check Similarity Index within 10%
- Foreign examiners from QS200 ranked university.

## NEW RESEARCH INITIATIVES

### Dyrad Data Repository

Data repository is a cloud based storage platform that allows researchers to

- share raw data
- All prestigious publishers require data in repository even for manuscript submission
- validate published findings.
- increase of citation (data linked to repository have a 25-36% higher citation impact on average)
- re-purpose data for research questions unanticipated by the original authors

*We are happy to share that IIT(ISM) Dhanbad is the first Academic Institute in this part of the World to have licensed version of data repository. All top US Universities are the member of Dyrad Data Repository*

### Sandwich PhD Programme

- Increase international exposure to state-of-the-art.
- There are two options for carrying out Sandwich PhD:
  - A Doctoral stay as part of a joint supervision, in that case the student may register in both Institutes/Universities, **OR**
  - The candidate is required to register at IIT (ISM) with or without the joint supervision.
- **Minimum Duration:** 6 months and maximum number of fellowship: 20/Year
- A Doctoral student will utilize his fellowship of six months plus accumulated contingency.
- In addition, the Institute would provide a maximum additional support of Rs. 2.00 Lakhs depending on the country of visit if the students does not get financial support from the host institute else the contribution of the Institute will be reduced proportionally.

### Faculty Mobility Program (FMP)

- Visit relevant industries/research laboratories, for a minimum of two weeks during summer/winter vacation. Can use their CPDA/PDF for the financial support
- Minimum 2 weeks in industry
- This will further help the faculty member to engage with the industry partner for technology development and innovation in cutting edge technology through collaborative research projects.
- Propose a joint project.
- Input for faculty promotion.

### Some Other Initiatives

- Proposal under Faculty Research Scheme (Seed Grant to Newly Joined Faculties) is reviewed by external expert followed by presentation in presence of expert.
- Also external expert will be the part of review panel for mid-term and final presentation of project completion.
- Comprehensive internship program.
- Course on Social entrepreneurship.

## FACULTY EXCHANGE PROGRAMME



### Fulbright Fellowship

- Prof Robert Jay Pulliam, W.M. Keck Foundation Prof. of Geophysics at Baylor University in the US and visiting IIT(ISM) as Fulbright-Nehru Distinguished Chair Professor will deliver Lecture on "Comparing and Contrasting the Gulf of Mexico & the Bay of Bengal, on 12 Sep 19.

### Visiting Advanced Joint Research Award (VAJRA)

- VAJRA fellowship on "Use of induced polarization to discriminate ore bodies in the subsurface of the Earth, Collaboration" with Prof Andre Revil, CNRS, France.

### DUO-India Fellowship Programme

- Total eight Faculty Members and one research student have been awarded with DUO India Scheme.

### Scheme for Promotion of Academic and Research Collaboration (SPARC) in 2019-2020

- A project entitled "Geoenvironmental and Geotechnical Issues of Coal Mine Over Burden", has been sanctioned in collaboration with Prof. Krishna R Reddy, & Prof. Joseph W Schulenberg, University of Illinois, Chicago (UIC) of amount Rs. 43,91,561.00
- A project entitled "Nonlinear vibrations and instability analysis of composite structural elements through advanced shear-deformation theories and homogenization based damage model", has been sanctioned in collaboration with Prof. Marco Amabili, & Prof. Mathias Legrand, McGill University, of amount Rs. 49,91,220.00.
- PhD Scholar of Dept of Civil Engineering has been invited for SPARC Research Collaborative Programme at McGill University, Canada under Prof. Macro Amabili, Dept. of Mechanical Engineering.

### Shastry Indo-Canadian Institute (SICI) Grant

- Project entitled "Memristor based biosensor design for COVID-19 Embedded Systems and VLSI" with Prof. Balbir (Bob) Gill, University of British Columbia has been sanctioned under SICRG scheme.
- Three Professors of the Institute have been awarded Shastry Mobility Programme (SMP)
- Three students of the Institute have been awarded Shastry Research Student Fellowship (SRSEF)

### Global Initiative for Academic Networks (GIAN): 2018 & 2019

- Inverse problems in fuzzy approximation spaces with applications in computer vision: Prof. Irina Perfilieva, Institute of Research and Application in Fuzzy Modelling Czech Republic
- Insight into Fuzzy Modeling: Reasoning in Fuzzy Natural Logic and Its Applications: Prof. Vilem Novak, Institute of Research and Application in Fuzzy Modeling, Czech Republic
- Security of e-Systems and Networks: Prof. Mohammad S. Obaidat, Fordham University, USA, United States of America
- Geoinformatics and Geocomputational Modeling for Water Resources Engineering and Environmental Science: Prof. Venkatesh Uddameri, Texas Tech University, Lubbock, Texas,, United States of America
- Derivative Pricing: Prof. Kailash C Patidar, University of Western Cape, South Africa
- Rock Mechanics: Modern Advances and Challenges For the 21st Century :Prof. Giovanni Grasselli, University of Toronto, Canada



### **Global Initiative for Academic Networks (GIAN): 2020-2021**

- Global Seismology, Prof Derek Schutt, Colorado State University United States of America
- Option Pricing: A Computational Framework, Prof Katlash C Patidar, University of the Western Cape, Cape Town South Africa
- Treatment and valorization of industrial wastes Dr Claudio Cameselle, University of Vigo Spain
- Big Data Analysis through Copula, Prof Jong Min Kim, The University of Minnesota at Morris United States of America
- Hybrid Micro and Nano Machining Processes, Dr. Pervej Jahan, Miami University, USA.
- Functional Material and Heterogeneous Catalysis(CBM), Emtiel J Hensen, Eindhoven University of Technology, Netherland

### **Scientific and Useful Profound Research Advancement (SUPRA)**

- Control of sprays and thermo-acoustic oscillations through an acoustic driven fuel injector: passive and active control strategy, Department of Mechanical Engineering, Rs. 220.00 Lakhs
- Investigating Uncharted 2D Catalytic Materials for Lignocellulosic Biomass Transformation into High-Value Platform Chemicals and Fuel, Jointly Awarded to IIT, Delhi and IIT(ISM), Dhanbad, Rs. 80.00 Lakhs

### **For Jharkhand**

#### **Avishkar**

- Jharkhand School Innovation Challenge.
- All 24 districts of Jharkhand
- Ideation and innovation challenge for Class VIII to XII.
- Energy harnessing, water & sanitation, environment, education, health.
- Top 5 ideas to be incubated in IIT(ISM).

#### **Crowdsourcing among engineering colleges**

- Thesis management system.

# Placement

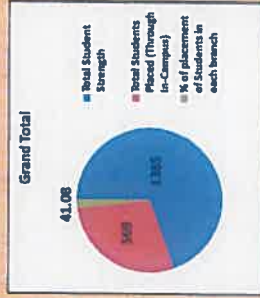
## STUDENTS PLACEMENT STATISTICS 2021 BATCH (as on 28th Feb, 2021)

| 4-Year B Tech Programmes            |                        |   | 5-Year Dual Degree Programmes             |  |                       |   |
|-------------------------------------|------------------------|---|---|--|-----------------------|---|
| Programmes                          | Total Student Strength | Total Students Placed (Through In-Campus) | % of placement of Students in each branch | Programmes                             | Total Student Through | % of placement of Students in each branch |
| Chemical Engineering                | 27                     | 12  | 44.44                                     | B.Tech M.Tech Computer Science & Engg] | 21                    | 18  |
| Civil Engineering                   | 44                     | 11  | 25.00                                     | Total                                  | 21                    | 18  |
| Computer Science & Engg.            | 151                    | 124                                       | 82.12                                     |  |                       |   |
| Electrical Engineering              | 84                     | 63  | 59.39                                     |  |                       |   |
| Electronics & Communication Engg.   | 108                    | 80  | 63.89                                     |  |                       |   |
| Electronics & Instrumentation Engg. | 37                     | 23  | 62.16                                     |  |                       |   |
| Engineering Physics                 | 16                     | 3   | 18.75                                     |  |                       |   |
| Environmental Engg.                 | 25                     | 15  | 60.00                                     |  |                       |   |
| Mechanical Engineering              | 113                    | 65  | 57.33                                     |  |                       |   |
| Metallurgical Engineering           | 20                     | 12  | 60.00                                     |  |                       |   |
| Mining Engineering                  | 60                     | 38  | 63.33                                     |  |                       |   |
| Mineral Processing                  | 25                     | 8   | 32.00                                     |  |                       |   |
| Petroleum Engineering               | 84                     | 27  | 32.14                                     |  |                       |   |
| <b>Total</b>                        | <b>784</b>             | <b>494</b>                                | <b>63.12</b>                              |  |                       |   |

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## STUDENTS PLACEMENT STATISTICS 2021 BATCH (as on 28th Feb, 2021)

| 2-Year M.Sc Programmes  |                        |   | 2-Year MBA Program                        |              |                        | 3-Year M.Sc Tech Programmes               |   |                    |                        |   |   |
|-------------------------|------------------------|---|---|--------------|------------------------|---|---|--------------------|------------------------|---|---|
| Programmes              | Total Student Strength | Total Students Placed (Through In-Campus) | % of placement of Students in each branch | Programmes   | Total Student Strength | Total Students Placed (Through In-Campus) | % of placement of Students in each branch | Programmes         | Total Student Strength | Total Students Placed (Through In-Campus) | % of placement of Students in each branch |
| Chemistry               | 45                     | 0   | 0.00                                      | Chemistry    | 45                     | 0   | 0.00                                      | Applied Geophysics | 43                     | 18  | 41.86                                     |
| Mathematics & Computing | 37                     | 1   | 2.70                                      | Physics      | 38                     | 0   | 0.00                                      | Applied Geophysics | 55                     | 7   | 12.73                                     |
| Physics                 | 118                    | 1   | 0.85                                      | <b>Total</b> | <b>118</b>             | <b>1</b>                                  | <b>0.85</b>                               | <b>Total</b>       | <b>98</b>              | <b>25</b>                                 | <b>25.51</b>                              |
|                         |                        |   |   |              |                        |   |   |                    |                        |   |   |



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## STUDENTS PLACEMENT STATISTICS 2021 BATCH (as on 28th Feb, 2021)

| 2-Year M.Tech Programmes   |                        |   | 2-Year M.Tech Programmes                  |  |                        |   |   |
|--|------------------------|---|---|--|------------------------|---|---|
| Programmes   | Total Student Strength | Total Students Placed (Through In-Campus) | % of placement of Students in each branch | Programmes                             | Total Student Strength | Total Students Placed (Through In-Campus) | % of placement of Students in each branch |
| Geo Exploration  | 5                      | 0   | 0.00                                      | Environmental Science & Engineering    | 18                     | 3   | 16.67                                     |
| Engineering Geology  | 7                      | 0   | 0.00                                      | Mineral Engineering                    | 6                      | 1   | 16.67                                     |
| Earthquake Science & Engineering   | 10                     | 0   | 0.00                                      | Fuel Engineering                       | 9                      | 0   | 0.00                                      |
| Geotechnical Engineering   | 8                      | 2   | 25.00                                     | Data Analytics                         | 7                      | 2   | 28.57                                     |
| Structural Engineering   | 7                      | 1   | 14.28                                     | Mining Machinery Engineering           | 11                     | 0   | 0.00                                      |
| Computer Science & Engineering   | 12                     | 8   | 66.67                                     | Machine Design                         | 18                     | 0   | 0.00                                      |
| Computer Science & Engineering with Specialisation in Information Security | 13                     | 8   | 61.54                                     | Manufacturing Engineering & Technology | 9                      | 0   | 0.00                                      |
| Chemical Engineering   | 14                     | 0   | 0.00                                      | Manufacturing Engineering              | 15                     | 0   | 0.00                                      |
| Power System Engineering   | 14                     | 0   | 0.00                                      | Thermal Engineering                    | 12                     | 0   | 0.00                                      |
| Power Electronics & Electrical Drives                                      | 8                      | 0   | 0.00                                      | Industrial Engineering & Management    | 10                     | 0   | 0.00                                      |
| Communication & Signal Processing  | 9                      | 1   | 11.11                                     | Optimisation                           | 8                      | 0   | 0.00                                      |
| Optics and Photonics   | 9                      | 1   | 11.11                                     | Mining Engineering                     | 5                      | 1   | 20.00                                     |
| Communication Engineering  | 7                      | 0   | 0.00                                      | Chemical Mining                        | 6                      | 1   | 16.67                                     |
| RF and Microwave Engineering   | 15                     | 2   | 13.33                                     | Technology                             | 6                      | 1   | 16.67                                     |
|  |                        |   |   | Urban Mining & Underground Space       | 6                      | 1   | 16.67                                     |
|  |                        |   |   | Petroleum Engineering                  | 20                     | 0   | 0.00                                      |
|  |                        |   |   | <b>Total</b>                           | <b>259</b>             | <b>32</b>                                 | <b>12.35</b>                              |

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