ANNUAL REPORT
2022-23

NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

(Formerly National Institute of Foundry and Forge Technology)

Hatia, Ranchi - 834 003 (Jharkhand) India

Hon'ble Union Minister of State for Education **Smt. Annpurna Devi** along with other dignitaries inaugurated three month training course under the women technology park (DST sponsored project) and Innovative and Entrepreneurs Development Center at NIAMT

Hon'ble Union Minister of State, Ministry of Education, Dr Subhas Sarkar unveiling the bust of M Visvesvaraya at NIAMT, Ranchi

Annual Report
2022 – 23

National Institute of Advanced Manufacturing Technology
A Centrally Funded Technical Institute Under MoE (Govt. of India)
Hatia, Ranchi - 834003 (Jharkhand)

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NIAMT
RANCHI
FORMERLY NIFFT
NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

PREAMBLE

Since its inception, the National Institute of Advanced Manufacturing Technology (NIAMT), Ranchi (erstwhile National Institute of Foundry and Forge Technology (NIFFT)) has continuously expanded and elevated its academic framework to fulfill the requirements of quality manpower in the manufacturing sector.

Over the years, the Institute has earned widespread recognition in training, education, research, and consultancy, and maintained the character of a National Institute in its governing systems, recruitment of faculty, and admission of students. Alumni of the Institute have played a leading role not only in foundry and forge industries, as engineers and entrepreneurs, but also in IITs, IIMs, PSUs, and UPSC cadres.

In pursuit of its mission, to emerge as a center of excellence in advanced manufacturing, the Institute has changed its name from National Institute of Foundry and Forge Technology to National Institute of Advanced Manufacturing Technology on November 11, 2021, with due approval of Ministry of Education, Government of India.

The Institute aspires to excel as a center for holistic skill and knowledge development in manufacturing technology, emerging in the horizon, by evolving the confluence of multiple domains like Mechanical Engineering, Material Engineering, Computer Engineering, Information Technology, Physical Sciences, Mathematics and Humanities.

The new breed of manpower, produced by this Institute, will inherit the capabilities not only to provide leadership in the futuristic manufacturing sector, but also will inherit the ingenuity to elevate traditional manufacturing practices to the level of the emerging digital manufacturing technology by introducing appropriate backward-forward linkages.

NIAMT, in its framework, inherits the unique commitment, from erstwhile NIFFT, to serve the manufacturing sector of the country, in the emerging spectrum, and to promote the synergy between sustainability and competitiveness in the manufacturing sector.

Hon'ble Union Minister of State, Ministry of Education, Dr Subhas Sarkar unveiling the bust of M Visvesvaraya at NIAMT, Ranchi

Celebration of Youth Day

BOARD OF GOVERNORS

1	**Shri Sham H. Arjunwadkar** CEO, Foundry Geometrix and Mentor, NCTS - IIF	**Chairman**
Representatives from Government of India		
2	**Smt. Soumya Gupta, IAS** Department of Higher Education, Ministry of Education Govt. of India	**Member**
3	**Ms. Leena Johri** AS & FA Department of Higher Education, Ministry of Education Govt. of India	**Member**
Representatives of Ministry of Industry Government of India		
4	**Mohd. Zakaria Khan Yusufzai** Senior Development Officer (Engg.) Department for Promotion of Industry and Internal Trade Ministry of Commerce and Industry	**Member**
Representatives of All India Council for Technical Education		
5	**Professor M.K. Tiwari** Director National Institute of Industrial Engineering, Mumbai Vihar Lake Road, Powai, Mumbai - 400087	**Member**
Representatives of Industries Including Public Enterprises		
6	**Vacant**	**Member**
7	**Vacant**	**Member**
8	**Shri Pradeep Goyal** Founder Chairman & Managing Director, Pradeep Metals Limited, Mumbai	**Member**
9	**Shri Sachin B. Sabnis** Managing Director Belgaum Ferrocast India Pvt. Ltd. (BFPL)	**Member**
10	**Professor Markrand Shrikrishna Kulkarni** Department of Mechanical Engineering, Indian Institute of Technology, Bombay	**Member**

Representatives of Technical Institutes/Engineering Profession		
11	**Dr. Pallab Banerji** Professor Materials Science Centre Indian Institute of Technology Kharagpur	**Member**
12	**Professor B.S. Murthy** Department of Metallurgical and Materials Engineering NAC Rd. Indian Institute of Technology, Madras	**Member**
Co-opted members by the Board		
13	Shri Sudhir Mutalik Founder CMD of Positive Metering Pumps (I) Pvt. Ltd.	**Member**
14	**Shri Vikas Khanvelkar** Founder CMD – Design Tech Systems Ltd.	**Member**
Co-opted members from Faculty		
15	**Professor R.K. Ohdar** Dept. of Foundry and Forge Technology, NIAMT, Ranchi	**Member**
16	**Vacant**	
Member Secretary		
17	**Professor Partha Protim Chattopadhyay** Director, NIAMT	**Member Secretary**
Invited Members		
1.	**Shri U.C. Prasad,** Registrar, NIAMT, Ranchi	**Invited Member**
2.	**Professor K.K. Singh** **Dept. of Foundry and Forge Technology, NIAMT, Ranchi**	**Invited Member**

ADMINISTRATIVE AND FINANCE COMMITTEE

Chairman		
1	**Shri Sham H. Arjunwadkar** CEO, Foundry Geometrics and Mentor, NCTS - IIF	Chairman
Representatives from Government of India		
2	**Smt. Soumya Gupta, IAS** Joint Secretary (NITs) Department of Higher Education Ministry of Education, Govt. of India	Member
3	**Smt. Leena Johri** AS & FA Ministry of Education Department of Higher Education. Govt. of India	Member
Co-opted members From Faculty		
4	Professor R. K. Ohdar Dept. of Foundry and Forge Technology, NIAMT, Ranchi	Member
5	Vacant	
Member Secretary		
7	**Professor P. P. Chattopadhyay** Director, NIAMT, Ranchi	**Member Secretary**

STANDING BUILDING COMMITTEE

1	**Professor Partha Protim Chattopadhyay** Director, NIAMT, Hatia, Ranchi–03	Chairman
2	Joint Secretary (Admin), Dept. of Higher Education MOE, Shastri Bhawan, New Delhi	Member
3	**Professor Debasis Roy,** Civil Construction and Maintenance, Indian Institute of Technology, Kharagpur	Member
4	**Shri S. Bandyopadhyay** A.M. Electrical Engineer Heavy Engineering Corporation Limited Dhurwa, Ranchi - 834004	Member
5	**General Manager** NBCC, 4th Floor, 401, Mangal Tawer Old H.B. Road, Ranchi.	Member
6.	**Shri Amrendra Kumar Singh** Senior General Manager (Civil) MECON Ltd. Ranchi - 834002	Member
7	**Professor R.K. Ohdar** Member, BoG NIAMT, Ranchi	Member
8.	**Professor S.R. Kumar** Member, BoG NIAMT, Ranchi.	Member
9	**Professor Manoj Kumar** Dean (P&D) NIAMT, Ranchi	Member
10	**Shri U.C. Prasad** Registrar, NIAMT, Ranchi	Member Secretary

UnderATAL Initiative, we are hosting in faculty development programme on re-manufacturing. Our esteemed guest of Honour Prof. Vijay Pandey (Vice Chancellor of Jharkhand University of Technology) on 19th December 2022

Dr. Nagahanumaiah, Director of Central Manufacturing Technology Institute (CMTI) Bangalore delivered a special lecture in our campus. He covered various aspects of product innovation. on the 12 December, 2022

Research and Development cell of the Institute organized a technical lecture by Dr. Snehangshu Patra entitled "Highly efficient on-demand green H2 vending machine" on the 15th of December 2022.

An Industrial Visit to H.E.C, Ranchi was conducted on 27.2.2023

ACADEMIC COUNCIL

1	Dr. P.P. Chattopadhyay, Director, NIFFT, Ranchi	Chairman
2	Vice Chancellor, Jharkhand University of Technology or His Nominee	Member
3	Controller of Examinations, Jharkhand University of Technology	Member
4	Vice Chancellor, Ranchi University or His Nominee	Member
5	Dean, Faculty of Science, Ranchi University	Member
6	Controller of Examination, Ranchi University, Ranchi	Member
7	Shri Bhaw Nath Thakur, ED, RDCIS, SAIL, Ranchi	Member
8	Shri Deepak Dokania, Director, BMC Metalcast Ltd, Jamshedpur	Member
9	Professor B. C. Ray, Department of Materials and Metallurgical Engineering, NIT, Rourkela	Member
10	Dr. T. Venugopalan, Chief Technical Officer, TATA Steel, Jamshedpur	Member
11	Professor Binod Kumar HOD (MME), NIAMT, Ranchi	Member
12	Professor Niranjan Kumar Singh, HOD (Foundry and Forge Tech.), NIAMT, Ranchi	Member
13	Professor Shyam Ranjan Kumar, HOD (DASH), NIAMT, Ranchi	Member
14	Professor Amitesh Kumar, HOD (Foundry and Forge Tech.), NIAMT, Ranchi	Member
15	Professor Anoop Kumar Sood, HOD (ME), NIAMT, Ranchi	Member
16	Professor G. Rajamohan, HOD (ECE), NIAMT, Ranchi	Member
17	Professor Sanjay Kumar, NIAMT, Ranchi	Member
18	Professor Kamlesh Kumar Singh, NIAMT, Ranchi	Member
19	Professor Arvind Pandey, NIAMT, Ranchi	Member
20	Professor Amitava Mondal, NIAMT, Ranchi	Member
21	Professor Ajai Kumar Pathak, NIAMT, Ranchi	Member
22	Professor Nandita Gupta, NIAMT, Ranchi	Member
23	Professor Anil Kumar, NIAMT, Ranchi	Member
24	Professor Manoj Kumar, NIAMT, Ranchi	Member
25	Professor Ghanshyam Das, NIAMT, Ranchi	Member
26	Professor Debdas Roy, NIAMT, Ranchi	Member
27	Professor Rajkumar Ohdar, Dean (Academic), NIAMT, Ranchi	Member Secretary


राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान
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DEPARTMENT OF FOUNDRY & FORGE TECHNOLOGY

About Department:

Department of Foundry Technology and the Department of Forge Technology was created on 1966 in which Advanced Diploma Courses (ADC), in Foundry and Forge Technology were offered to provide trained manpower in the primary metal processing industries. In 1985, M. Tech Programme was introduced with the specialization in foundry and forge technology. Subsequently, in 1991, two B. Tech programs, one in Metallurgical and Materials Engineering and the other in Manufacturing, was introduced to reinforce the core framework of Foundry & forging technology. In order to be competent with the present situation, the department grew noticeably and established new areas of research in foundry and forging technology. The department is having competent and highly qualified faculty members.

The Department of Foundry Technology and the Department of Forge Technology before merging was running separately. The Foundry Department was handled by Dr. Amitesh Kumar and Forge Department was handled by Dr. N.K. Singh. However, both the department were running the common course of M. Tech. in Foundry and Forge Technology and they had started B. Tech. course on Production and Industrial Engineering (honours in Foundry and Forge). They had the separate Advanced Diploma course in Foundry Technology and Forge Technology. Both the Departments agreed to run these courses as a single Department of Foundry and Forge technology. In the month of November, 2022. The Department of Foundry Technology and the Department of Forge technology merged as a single Department of Foundry and Forge Technology. Prof. K. K. Singh was made the first HOD of the Department of Foundry and Forge Technology. Now this Department is running two advanced Diploma courses one in Foundry Technology and another in Forge Technology; one M. Tech. programme as Foundry and Forge Technology and one B. Tech. programme as Production and Industrial Engineering (honours in Foundry and Forge).

FACULTY :

1	**Dr. K. K. Singh,** B. Sc. Engg. (Met.), M. Tech. (Met. Engg.), Ph.D. (I. I. T. Kanpur), LMIFO, LMIIM, FM Institution of Engineer	Professor & HOD Foundry & Forge Technology From 11.11.2022
2	**Dr. N. K. Singh,** B.Sc. Engg. (Mech.), M. Tech. (Foundry & Forge Tech.), Ph.D. (Ranchi University)	Professor & HOD Forge Technology Upto 10.11.2022
3	**Dr. R. K. Ohdar,** B.E. (Ind. Engg.), M. Tech. (Foundry & Forge Tech.), Ph.D. (IIT Kharagpur)	Professor
4	**Dr. Nandita Gupta** B.E. Mechanical , PD. Enginering (Ranchi University) MIIF, LMIIM, FIEI	Professor
5	**Dr. Manoj Kumar,** B.Sc. Engg. (Mech.), M. Tech. (Foundry & Forge Tech.) Ph.D. (IIT Kanpur)	Professor
6	**Dr. Amitesh Kumar** B.E., M.Tech., Ph.D. (I. I. T. Kharagpur), MIIF, LMIIM, LMIFO	Professor & HOD Foundry Technology Upto 10.11.2022

7	**Dr. Ajit Kumar Pramanik** B.Tech(Mech.), M. Tech (IIT Roorkee), Ph.D (Jadavpur University)	Assistant Professor
8	**Mr. Vineet Chak** B. Tech (Mech.) M. Tech (IIT Roorkee) , PhD (Jadavpur University)	Assistant Professor
9	**Dr. Deepak Kumar** B.Tech (Mech.) M. Tech (AMU Aligarh), Ph.D. (IIT Rorkee)	Assistant Professor
10	**Dr. Himanshu Khandelwal** B.Tech, M.Tech., Ph.D. (I. I. T. Bombay)	Assistant Professor
11	**Dr. Kulkarni Rahul Ramesh** B.E. (Mech.), M.Tech (NITK), Ph.D. (IIT Bombay)	Assistant Professor

ACTIVITIES:

Academic Activities:

Number of subjects offered by the department:

Name of Course	No. of Subjects Offered
B. Tech. Course (ME & MME)	14
M. Tech. Course (Foundry-Forge & Mfg. Engg.)	12
A.D.C. (Foundry Tech. & Forge Tech.)	15

Faculty members of the department were involved in guiding Seminars and Projects of M. Tech., B. Tech. and Advanced Diploma Course besides their normal classes for long term courses.

➢ Awarded Ph.D students :

(a) P. Vijayanand has awarded in 29th April 2022, Research Topic – "Effect of plasma sprayed nano composite coating over mild steel", under the supervision of Dr. Amitesh Kumar.

(b) Amar Kumar has awarded in 23rd September, 2022, Research Topic – Optimization of parameters influencing energy conservation in power sector using soft computing techniques", under the supervision of Dr. R.K. Ohdar.

(c) Bagesh Bihari has Awarded in 28th September, 2022, Research Topic – " Studies on Aluminium alloy MMC reinforced with different ceramic particle", under the supervision of Dr. A.K. Singh.

(d) Md. Salim Ansari has awarded in 28th February 2023, Research Topic – " Simulation of lead alloy solidification and its experimental validation", under the supervision of Dr. Amitesh Kumar & Dr. K.K. Singh.

➢ Publication

1. **Nandita Gupta,** Gaurav Saha, Sushanta Kumar, Sarita Kumari "Design and Development of long Crank for E-Bike with Integrated Balancing" international Journal of Mechanical and Production Engineering September 2022, ISSN (p) 2320-2092, ISSN (e) 2321-2071, volume 10, Issue 9, http//i.raj.in pp 40-43,
2. **Nandita Gupta,** Sandeep Yadav, Sujata Devi, Balbir Singh "The effect of Thermodynamics in effective removal of Phosphorous in steel making International Journal Of Current Research ISSN:0975-833X, in Physical Sciences nd Engineering Section, January 2023

3. Bateshwar Prasad, **Dr Amitesh Kumar, Dr Nandita Gupta.** "Bimetallic Casting of Cast Iron and Stainless Steel-A review, in IJTRET-Voice of innovative minds, April 2022, (ISSN No. 2582-0958) www.trendytechjournals.com".
4. **Rahul R. Kulkarni,** Vishal L. Chakote, Vaibhav V. Shevale (2023): Comparative Study on Microstructure Evolution during Cold Forging and Warm Forging in AA6082, NanoWorld J 9(S1):S162-S165.
5. Amar Kumar, Umesh Prasad, , **Raj Kumar Ohdar** (2022), Integrated Energy Planning for Energy Management for Sustainable Development in Rural Areas: A Case Study of Jharkhand Village; International Journal for Research in Applied Science & Engineering Technology (IJRASET), Volume 10 Issue VIII Aug 2022.
6. Amar Kumar, Umesh Prasad, **Raj Kumar Ohdar** (2022), Fuzzfied Approach for Energy Management in Electrical Demand, International Journal of Emerging Trends & Technology in Computer Science (IJETTCS), Volume 11, Issue 5, September, October 2022.
7. Abhishek Kumar, **Rahul R. Kulkarni, Rajkumar Ohdar** (2023), Towards understanding the behaviour of magnesium alloy during different forging processes: An overview, Materials Today: Proceedings, March 2023.
8. **Nandita Gupta,** Sandeep Yadav, Sujata Devi, Balbir Singh "The effect of Thermodynamics in effective removal of Phosphorous in steel making International Journal Of Current Research ISSN:0975-833X, in Physical Sciences nd Engineering Section, January 2023.
9. **Chak V,** Chattopadhyay H, Mechanical and tribological properties of ceramic-aluminium composites developed using stirring-assisted squeeze casting. International Journal of Cast Metal Research https://doi.org/10.1080/13640461.2023.2207894
10. **Chak V**, Chattopadhyay H, Shanu C. A review on the employment of ultrasonic-assisted routes for synthesis of aluminium matrix composites. Materials Today: Proceedings. 2022 Sep 19. https://doi.org/10.1016/j.matpr.2022.09.192
11. Mukkollu Sambasiva Rao1, **Himanshu Khandelwal***, Mohit Kumar, **Amitesh Kumar**, Parametric Optimization for Producing Semi-Solid A383 Alloy using Cooling Slop Casting Process, Archives of Foundry Engineering (SCI), 2023, 23, 1, 43-52.
12. **Khandelwal H.**, Chavan, S. (2023). Electric Mobility: Key Factors, Unresolved Issues and Significance for Foundry Industries. In: Dikshit, M.K., Soni, A., Davim, J.P. (eds) Advances in Manufacturing Engineering. Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-19-4208-2_22
13. Anand Kumar, **Himanshu Khandelwal**, Dr. Sanjay Kumar, Santosh Kumar Azad, Design Optimization of Steel Wheel Casting using Casting Simulation, proceeding of 71st Indian Foundry Congress, Noida, India. Feb 2023.
14. **Nandita Gupta, Himanshu Khandelwal**, Rahul Kumar, Ashish Nayak, Effect of Casting Section Geometry on Stresses and Deformation by Pro CAST, proceeding of 71st Indian Foundry Congress, Noida, India. 2023, Feb 2023.
15. M. Prithvi Raj, **Manoj Kumar** and **Ajit Kumar Pramanick**, **Book Chapter in** Springer Proceedings in Materials "Advancement in Materials Processing Technology in 2022 Vol 12 by Springer Mudeling and simulation of Fleshless Forging of Coupling Flage by
16. **Manoj Kumar** and M.P. Rao., **Book Chapter in** Lecture notes in Mechanical Engineering b Springer 2023." Recent Trends in Mechanical Engineering. Studies of Friction for Different

Forging Lubricants Using Ring Compression Test .

17. **Nandita Gupta**, Sandeep Yadav, Sujata Devi, Balbir Singh "The effect of Thermodynamics in effective removal of Phosphorous in steel making International Journal Of Current Research ISSN:0975-833X, in Physical Sciences nd Engineering Section, January 2023
18. **Nandita Gupta**, Gaurav Saha, Sushanta Kumar, Sarita Kumari: "Design and Development of long cfrank for E-Bike with Integrated Balancing" International Journal of Mechanical and Production Engineering ISSN(p)2320-2072, ISSN (e): 2321-2071 volume 10 Issue 9, September 2022, http:iraj.in
19. Bateshwar Prasad, **Amitesh Kumar, Nandita Gupta**, "International Journal of Trendy Research in Engineering and Technology" volume 6, issue 2,April 2022 ISSN No. 2582-0958, pp 1-4

➢ Participation in International/National conference

1. **Dr. Amitesh Kumar,** Professor, attended International Engineering Sourcing Show X (IESS-2023) at Chennai held during 16-18 March,2023.
2. **Dr. Nandita Gupta,** Professor participated in the International Conference AITISM 0223 & present a technical paper entitled "AI enabled Smart Melting System" to be held in RDCIS, SAIL, Ranchi held during 27th February -1st march, 2023.
3. **Dr. Himanshu Khandelwal,** Assistant Professor participated in 71st Indian Foundry Congress – 2023 from February 8th-10th, 2023 held at India Expo Mart, Greater Noida (U.P.) and present a Technical paper titled "Design Optimization of Steel Wheel Casting using Casting simulation.
4. **Dr. Himanshu Khandelwal,** Assistant Professor, attended Two weeks Industrial Training programme at UDHYOG 4.0 LLP Rajkot, held during 26th December- 7th January 2023.
5. **Dr. Nandita Gupta,** Professor, participated in 71st Indian Foundry Congress-2023, Noida and presented a Technical Paper on "Effect of casting Section Geometry on Stresses and Deformation by Pro Cast", held during 8th February -10th February, 2023.
6. **Dr. Rahul Ramesh Kulkarni,** Assistant Professor, presented a research paper entitled "Comparative Study on Microstructure Evolution during Cold Forging and Warm forging in AA6082" in international conference on Innovation in Mechanical and Materials Engineering (IMME-2022) held at MINNIT, Allahabad, held during 4th November – 6th November 2022.
7. **Dr. Ajit Kumar Pramanik**, Assistant Professor attended and deliver a talk on the "One day workshop on arc welding processes and its application" Organized by C.V. Raman Global University, Bhubaneshwar on 27.09.2022.
8. **Dr. Nandita Gupta**, Professor in "World Conference on Science Engineering and Technology (WCSET)' organized by IFEARWORLD in Association with Institute of Research and Journals during August 07th-8th, 2022 at Kolkata and present technical paper titled "Design and Development of Long Crank For E-Bike with Integrated Balancing".
9. **Mr. Vineet Chak**, Assistant Professor, attended and present a paper in 2nd International Conference and Exposition and Advances in Mechanical Engineering (ICAME-2022) from 23-25th June 2022 at College of Engineering Pune, India.
10. **Deepak Kumar,** Assistant Professor participated in International Conference on Materials Processing & Characterization (ICMPC 2022-Online/Offline mode) on 22nd – 24th April. 2022 at GRIET, Hyderabad.

11. **Rahul R. Kulkarni,** Vishal L. Chakote, Vaibhav V. Shevale: Comparative Study on Microstructure Evolution during Cold Forging and Warm Forging in AA6082, International Conference on Innovation in Mechanical and Materials Engineering -2022 (IMME-2022) at Organized by Department of Mechanical Engineering, Motilal Nehru National Institute of Technology Allahabad, UP, India, November 04-06, 2022.
12. **Nandita Gupta,** S.K.Sen "Effect of Heat Treatment parameters on the Carbide Spheroidization of 0.48$% Carbon Manganese Steel" at 7th World Congress on Material Science and Engineering (MATCON 2023) held during 21-22 June 2023 in Valencia Spain
13. Ashish Kr Nayak, **Himanshu Khandelwal, Nandita Gupta** "Intelligence Enabled Smart Melting System" International Conference on Automation and Information Technology in Steel Mining and other Manufacturing Industries (AITISM), „ Jharkhand INDIA 2035, Feb 27-1 March 2023, RDCIS, SAIL Satellite Township Ranchi-834003
14. **Nandita Gupta,** Gaurav Saha, Sushanta Kumar, Sarita Kumari "Design and Development of long Crank for E-Bike with Integrated Balancing" World Conference in Science Engineering and Technology (WCSET) 7-8 August 2022 Kolkata, (West Bengal)
15. Bateshwar Prasad, **Amitesh Kumar, Nandita Gupta** "Bimetallic Casting of Cast Iron and Stainless Steel-II A review," presented in ICAMSMD-2022 International Conference on Advances in Materials, Sensors and Microelectronic Devices
16. Bateshwar Prasad, **Amitesh Kumar, Nandita Gupta,** Technical Paper presented "Bimetallic Casting of Cast Iron and Stainless Steel-I A review, presented in 19th EATS Organised by EATS,(European Association of Taiwan Studies NORTIS: Northern Institute of Taiwan Studies, ISAP Institute for Study of the Asia Pacific and UCLAN University of Central Lancashire) cyprus Campus, 6 -8 April 2022
17. **Dr. Himanshu Khandelwal,** Assistant Professor "Design Optimization of Steel Wheel Casting using Casting Simulation", proceeding of 71st Indian Foundry Congress, Noida, India. Feb 2023.
18. **Dr. Himanshu Khandelwal,** Assistant Professor "Effect of Casting Section Geometry on Stresses and Deformation" by Pro CAST, proceeding of 71st Indian Foundry Congress, Noida, India. 2023, Feb 2023.

➢ Patent/Project :

1. Provisionally Accepted the DST Externally Funded Project: - DST SERB Project for 15 Lakh "Application of Expendable salt core by Rheo casting Technology for Al(356)Alloy Casting and check its viability by simulation (pro CAST)"Applied on 20th March 2023 by Dr. N. Gupta.
2. Externally Funded Project: -DST SERB Project for 15 Lakh "Application of Expendable salt core by Rheo casting Technology for Al (356) Alloy Casting and check its viability by simulation (Pro CAST)" Applied on 20th March 2023 (Provisionally accept Patent Accepted (Indian) Author Ganesh Vidyarthee, Nandita Gupta, Himanshu Khandelwal "Novel Urea Core for Investment casting". Composition 1: Fine crystalline Urea (92-95wt%)+NaCl (2-8%), Composition 2: Prill form of Neem Coated Urea (NCU)(92-95wt%)+NaCl (2-8wt%)

➢ Enrollment of doctoral scholars

1. **Mukkollu Sambasiva Rao**, PhD student with Institute Fellowship under the Supervision of **Dr. Amitesh Kumar.**
2. **Mathala Prothvi Raj**, PhD student with Institute Fellowship under the Supervision of **Dr. Manoj Kumar & Dr. Ajit Kumar Pramanick.**
3. **Suprakash Mahanta,** Part time Research Scholar, under the Supervision of **Dr. Manoj Kumar & Dr. Deepak Kumar.**

4. **Md. Afzal,** Part time Research Scholar under the Supervision of **Dr. N.K. Singh & Dr. R. R. Kulkarni.**
5. **Chinta Siva Santosh Dharma Kowshik**, Part time Research Scholar under the Supervision of **Dr. R.K. Ohdar.**
6. **Bateshwar Prasad,** Part time Research Scholar under the Supervision of **Dr. Amitesh Kumar & Dr. Nandita Gupta.**
7. **Sharda Prasad Shukla**, Part time Research Scholar under the Supervision of **Dr. K.K. Singh & A.K. Singh.**
8. **Abhishek Kumar**, PhD student with Institute Fellowship under the Supervision of **Dr. R.R. Kulkarni & Dr. R.K. Ohdar.**
9. **Ashish Kumar Nayak**, PhD student with Institute Fellowship under the Supervision of **Dr. Nandita Gupta & Dr. H. Khandelwal**
10. **Pankaj Kumar,** Part time Research Scholar under the Supervision of **Dr. K.K. Singh & Dr. Amitesh Kumar.**

➢ Visit at or collaboration with University abroad

Himanshu Khandelwal visited IIT Bombay

➢ Event organized

1. Under the aegis of Azadi ka Amrit Mahotsav and under the campaign "Har Ghar Dhyan" launched by Ministry of Culture, Govt. of India, the event had been organized on 03-02-2023 in association with Art of Leaving by Dr. Kulkarni Rahul Ramesh as a Mediation Ambassador.
2. One-Day Online National Workshop on "Recent Trends in Materials Processing and NDT" had been organized on 21-04-2023 by Dr. B. Mallik, Associate Professor: Department of Metallurgy and Materials Engineering (as a coordinator of the workshop) and Dr. Kulkarni Rahul Ramesh, Assistant Professor: Department of Foundry and Forge Technology (as a Co-Coordinator and Anchor of the workshop).
3. Coordinated 4 day International Workshop on Remanufacturing Capacity Building, organized by NIAMT and FAMFI, 15th to 18th September 2022.

➢ Development/Renovation of laboratories :

1. The Department of Foundry and Forge Technology acquired an Inverted Metallurgical Microscope with integrated image analysis software, which was subsequently installed, showcased, and demonstrated in their metallography laboratory as Indenter and Metallography lab In-charge.
2. Procurement of Equipment for Laboratory Development by Vineet Chak.
3. Design and Simulation Laboratory.

➢ Faculty Development Programme/Workshop/Industrial Training

1. **Prof. Nandita Gupta** participated in AICTE sponsored 5 days FDP on "Inculcating universal Human values in Technical Education. (18-22 July, 2022) .
2. **Prof. Nandita Gupta** participated in "International workshop on remanufacturing capability building" (15-18 Sep., 2022) Jointly organized by NIAMT & FAMPI.
3. Talk delivered by **Dr. Kulkarni Rahul Ramesh**, Topic: Role of Heat Treatment in Forging of

Aluminium and Magnesium Alloys in a self-sponsored five days online short-term course on "Materials Processing & Characterization" organized by Department of Metallurgical and Materials Engineering, Malaviya National Institute of Technology Jaipur Rajasthan, August 5-9, 2022.

4. Faculty Development Program: "Inculcating Universal Human Values in Technical Education" organized by All India Council for Technical Education (AICTE) from 18th July to 22nd July 2022 (online mode) by **Dr. Kulkarni Rahul Ramesh**.
5. Industrial Training completed: Two weeks of industrial training completed at Heavy Engineering Corporation, Ranchi in the Month of December 2022-January 2023.
6. **Himanshu Khandelwal** Submitted 1 Project Proposals in SERB CRG

Administrative Assignments:

1.	Dr. K. K. Singh	• HOD, Foundry & Forge Technology for 11.11.2022 • Chairman, Preparation of Recruitment & Promotion policy/ scheme guidelines for Non- Technical Post. • Chairman, Dean committee to review & restructure the operational frame work at the Institute level. • BOG Member (up to 18.12.2022) • Dean Student Affairs • Chairman ILC • Chairman NIFFT Niwas
3.	Dr. .Amitesh Kumar	• Member Anti-ragging Committee • Member of Library committee • HOD Foundry Technology Deptt.
4	Dr. Himanshu Khandelwal	• Associate Dean (ADC)
5	Dr Nandita Gupta	• Dean Research February 2022 onwards • Member of HEFA Committee March 2022 onwards • Member working committee for HINDI language related matters • In charge Sand Laboratory Dept. of Foundry Technology.
6	Manoj Kumar	• Dean (P&D) • Chairman IWC
7	Dr. Vineet Chak	• Member ILC Committee
8	Dr. Deepak Kumar	• Member of CIF Committee • Member of Reservation/welfare cell for reserved categories.
9	Dr. R.K. Ohdar	• Dean (Academic) Chairman, Anti Ragging Squade, B.O.G. Member


राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान
सृजनं विज्ञान विश्वस्य
NIAMT
RANCHI
FORMERLY HMTI
NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

DEPARTMENT OF MECHANICAL & MANUFACTURING ENGINEERING

About Department:

The department was established in 1985 as Production Engineering Department. It was renamed as Department of Manufacturing Engineering in 1991 to facilitate the starting of undergraduate and postgraduate programmes recognized by AICTE. The department started the postgraduate (M. Tech.) and undergraduate (B. Tech.) programmes in Manufacturing Engineering in 1991 and 1992 respectively. In the year 2006, the department started doctoral research programmes leading to PhD in different areas of manufacturing engineering. The degrees of all these courses were awarded by Ranchi University, Ranchi. From the 2018-19 academic session, the Institute got affiliated with the Jharkhand University of Technology, Ranchi. The department discontinued the B. Tech. (Manufacturing Engineering) programme in 2020 and started the B. Tech. (Mechanical Engineering) programme from 2020-21 academic session. The department was renamed as the Department of Mechanical and Manufacturing Engineering in November 2020.

The department has laboratory facilities matching with some of the best technical institutions in India. These facilities help in training the undergraduate and postgraduate students and to enable them to handle the ever-challenging needs of technical excellence in all areas of mechanical and manufacturing engineering. The department currently has the following laboratories: metrology, CAD/CAM/CAE, FMS, machine shop, welding laboratory, fluid mechanics, mechanics of solids, etc. Some new laboratories are under development.

FACULTY :

1	**Dr. Sanjay Kumar** B. Tech. (Met.), M. E. (Mech.), PhD, MIIF	Professor
2	**Dr. A. Mandal** B. Tech. (Mech.), M. Tech. (Prod.), PhD, MIIW	Professor
3	**Dr. A. K. Pathak** B. Sc. Engg. (Mech.), M. Tech. (Mech.), PhD, MIIW, MISTE, MIIM	Professor
4	**Dr. Vijay Toppo** B. Sc. Engg. (Mech.), M. Tech. (Mfg. Engg.), PhD, MIIM, MIIF	Professor (till 23/05/2022)
5	**Dr. A. K. Sood** B. E. (Mech.), M. E. (Design), PhD	Professor & HOD
6	**Dr. K. K. Verma** M.Sc. (Maths.), M.Phil. (Applied Maths.), PhD, MIIF	Associate Professor
7	**Dr. V. M. S. Hussain** B. E. (Mech.), M. E. (Prod.), PhD, MIIF	Assistant Professor
8	**Dr. Ratnakar Das** AMIE (Mech.), M. E. (Prod.), PhD	Assistant Professor

9	**Dr. Sambit Kumar Parida** B. E. (Mech.), M. Tech. (Mech.), PhD	Assistant Professor
10	**Mr. Anand Mohan Murmu** B. Tech. (Prod.), M. Tech. (Mfg. Sc. & Engg.)	Assistant Professor
11	**Mr. Subrato Kumar Soren** B. E. (Mech.), M. E. (Thermal Engg.)	Assistant Professor
12	**Dr. Jagesvar Verma** PhD (VNIT, Nagpur)	Assistant Professor
13	**Dr. Umesh Khandey** PhD (IIT Delhi)	Assistant Professor
14	**Dr. Aruna Thakur** PhD (NIT Rourkela)	Assistant Professor

ACTIVITIES

Academic Activities

The faculty of the department offered various core and elective courses to the students of B. Tech. (Mechanical Engineering), B. Tech. (Metallurgy and Materials Engineering) and M. Tech. (Manufacturing Engineering) students as per the academic requirements.

Projects / Seminar/ Conference / Presentation / Symposia / Webinar / Publications / Online Course / Workshop / Industrial Training

1. **Dr. A. K. Sood,** Professor delivered a lecture in AICTE Training and Learning (ATAL) Academy Hybrid FDP on "Innovative micro- and nano-technologies and fundamental principles" from 14/11/2022 to 25/11/2022 at Haldia Institute of Technology. The topic of the lecture is "Additive Manufacturing for Microfabrication."

2. **Dr. Ratnakar Das,** Assistant Professor delivered a lecture on "Composite Material Scope in Automobile" in the one-week High-end Workshop on "Joining Techniques for Modern Transportation Sector", 5th Dec. 2022 - 11th Dec. 2022, Birla Institute of Technology Mesra, Ranchi – 835 215 (India), Sponsored by SERB, Government of India.

3. **Dr. Ratnakar Das,** Assistant Professor attended and participated in the International Conference on Emerging Trends in Engineering and Technology (ICETET-2023) as Invited speakers at Rajdhani Engineering College, Bhubaneshwar held on 23-25 March, 2023

4. **Dr. Jagesvar Verma,** Assistant Professor attended on line certificate course on "Principles of Casting Technology" by Swayam – NPTEL scheduled form 23rd January, 2023.

5. **Dr. Aruna Thakur,** Assistant Professor presented a technical paper titled "Application of powder mixed cutting fluids during the machining of stainless steel AISI 316L" at the "Indo-European Conference on Advanced Manufacturing and materials Processing" organized by Department of Mechanical Engineering, Carmel College of Engineering and Technology, Punnapra, Alappuzha, held during 6th February-8th February 2023.

6. **Dr. Umesh Khandey,** Assistant Professor presented a research paper titled "Optimization of Multiple Surface Roughness Characteristics of Mild Steel Turned Product using weighted principal component and Taguchi Method" in the 4th International Conference on Recent Advances in Materials and Manufacturing (ICRAMM 2022) held at Vellalar College of Engineering and Technology, Erode, Tamil Nadu during 8th December-9th December, 2022.

7. **Dr. Aruna Thakur,** Assistant Professor attended an industrial training for two weeks during 1st October to 14th October, 2022 at HEC, Ranchi.

8. **Dr. Aruna Thakur,** Assistant Professor attended an FDP on "Inculcating Universal Human Values in Technical Education", organized by AICTE, New Delhi from 18th July - 22nd July 2022.

9. **Dr. Ratnakar Das,** Assistant Professor attended a 4 Days International Workshop on Remanufacturing Capacity Building, 15-18 September 2022, NIAMT, Ranchi.

10. **Dr. Ratnakar Das,** Assistant Professor and Dr. Aruna Thakur, Assistant Professor attended an FDP on "Advanced Remanufacturing Technology" at NIAMT, Ranchi under the aegis of ATAL Academy.

11. **Dr. Jagesvar Verma,** Assistant Professor attended an industrial training for two weeks during 1st October to 14th October, 2022 at HEC, Ranchi.

12. **Dr. Jagesvar Verma,** Assistant Professor and Dr. Aruna Thakur, Assistant Professor attended the online certificate course on "Laser Based Manufacturing" under Swayam – NPTEL conducted by IIT, Guwahati for Eight Weeks from 22nd August 2022.

13. **Dr. Jagesvar Verma,** Assistant Professor attended online short-term certificate course on "Advanced Characterization Techniques" held by LPU, Phagwara, Punjab for One week from 27th June 2022.

14. **Dr. Ratnakar Das,** Assistant Professor participated in the One-week hands-on Training workshop on Nanostructured Materials and Devices: Fabrication, Characterization and Application" at BIT Mesra, Ranchi under DST-STUTI programme of IIT (ISM) Dhanbad held from 22-28 July, 2022.

15. **Dr. V. M. S. Hussain,** Assistant Professor submitted a research article to the 113th International Conference on Material Processing and Characterization (ICMPC-2022) and the same is published in Materials Today: Proceedings.

16. **Dr. V. M. S. Hussain,** Assistant Professor presented and publish a research paper in the "2022 Second Global Conference on Recent Advances in Sustainable Materials".

17. **Dr. Ajai Kumar Pathak,** Professor attended the "Nation Welding Seminar" organized by Indian Institute of Welding (IIW, India) at Pune during 5th to 7th May, 2022 and presented a paper therein.

18. **Sood, A. K.,** Equbal, A., Khan, Z. A., Badruddin, I. A., and Hussien, M. (2022), FEM-based simulative study for multi-response optimization of powder bed fusion process. Mathematics, 10(14), 2505. doi:10.3390/math10142505.

19. Nayak S., **Sood A. K.** and **Pandey, A.** (2022), Integrated approach for flexible job shop scheduling

using multi-objective genetic algorithm, in: Lecture Notes in Mechanical Engineering (pp. 387-395). doi:10.1007/978-981-16-2794-1_35.

20. Kachhap, K., **Khandey U.,** and **Sood, A. K.** (2023), Design for additive manufacturing for prediction of deformations and residual stresses on topologically optimised structure, Materials Today: Proceedings, doi:10.1016/j.matpr.2023.08.245.

21. **A. M. Murmu, S. K. Parida,** and A. K. Das, Evaluation of in-situ synthesised titania-zirconia-boron carbide composite cladding on Ti6Al4V substrate using continuous wave fibre laser, Materials Chemistry and Physics, vol 296, pp. 1971-77.

22. R. K. Behera, B. P. Samal, S. C. Panigrahi, S. R. Das, A. Mohamed, K. Muduli, A. Samal, **S. K. Parida** and **Ratnakar Das** (2022), Experimental analysis on machinability aspects of sintered aluminium metal matrix (Al + Si + Mg + Cu + SiC) composite – a novel product produced by powder metallurgy method, Int. J. Materials Engineering Innovation, Vol. 13, No. 1, page. 1-22, DOI: 10.1504/IJMATEI.2022.122156.

23. R. K. Sahu, **Ratnakar Das,** B. C. Routara, B. B. Nayak, S. Sahu, (2022), Multi-hole extrusion process: A review, Materials Today: Proceedings 62 (2022) 3522–3527, https://doi.org/10.1016/j.matpr.2022.04.349.

24. Shambhu Kumar, **Ratnakar Das, Sambit Kumar Parida,** (2023), Experimental study on the quality of drilled holes in Sabai grass reinforced composites, Materials Today: Proceedings, https://doi.org/10.1016/j.matpr.2023.03.014.

25. Shambhu Kumar, **Ratnakar Das, Sambit Kumar Parida** (2023), Potential of grass families as reinforcement material in composites: A review. AIP Conf. Proc. 2764, 050006 (2023). https://doi.org/10.1063/5.0144142. (Scopus).

26. R. K. Sahu, **Ratnakar Das,** B. C. Routara, B. B. Nayak, S. Sahu, D. Das (2023), Study of Orientation of Triangular and Square die hole profiles on Extrusion Load in Multi-hole Extrusion process, E3S Web of Conferences, 430, 01290 (2023), DOI: 10.1051/e3sconf/202343001290.

27. **Ratnakar Das,** V. N. Lakshmi Durga and S. Rajwar, Surface roughness Evaluation during machining of AISI4340 alloy steel using PVD and CVD coated carbide tools in dry environment, International Conference on Technology and Transformation in Mechanical Engineering (ICTTME-2023), ISSN No: 978-1-387-30514-8, pp.63-75, Aryan Institute of Engineering and Technology, Bhubaneswar, 06-07 January 2023.

28. Shambhu Kumar, Vivek Tiwari, **Ratnakar Das,** and **Sambit Kumar Parida,** A review on organic and inorganic filers and its effect on hybrid polymer composites, pp. 29-36, International Conference on Emerging Trends in Engineering and Technology (ICETET-2023), Rajdhani Engineering College Bhubaneswar, 24-25 March 2023. ISSN: 2230-9373.

29. Analysis and optimization of welding techniques for austenitic stainless steel using grey relational analysis, International Journal on Interactive Design and Manufacturing (IJIDeM), Scopus, springer (2023), 505-508. https://doi.org/10.1007/978-3-030-73495-4_35

30. Sahu, A. K., Katyayan, A., **Khandey, U.,** Jangde, P., Sahu, A. K., & Sahu, N. K. (2023). Adaptation of block chain technology in SCM for steering managerial strategies: Investigative study under Indian context. Journal of International Logistics and Trade, 21(1), 18-40, https://doi.org/10.1108/JILT-06-2022-0020

31. **Khandey,** U. & Arya, V. (2023). Optimization of multiple surface roughness characteristics of mild steel turned product using weighted principal component and Taguchi method. Materials Today: Proceedings. Article in Press, https://doi.org/10.1016/j.matpr.2023.04.298.

32. Kachhap K., **Khandey,** U. & Sood, A. K. (2023). Design for additive manufacturing for prediction of deformations and residual stresses on topologically optimised structure. Materials Today: Proceedings. Article in Press, https://doi.org/10.1016/j.matpr.2023.08.245.

33. **Aruna Thakur,** M. P. Singh and R. Mote (2022), Suitability of electrolytes and anodic dissolution behaviour of 17-4 PH stainless steel, Materials Today: Proceedings.

34. Sabana Azim, **Aruna Thakur** and S Gangopadhyay, Analysis of surface characteristics after machining of a Ni-based superalloy, Sadhana, https://orcid.org/0000-0002-3251-9945.


राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान
भुवनं विज्ञान विश्वम्
NIAMT
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NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

DEPARTMENT OF METALLURGY AND MATERIALS ENGINEERING

About Department:

The department of Metallurgy and Materials Engineering has been dedicated in inculcating its students to make them world class engineers, creating outstanding research environment and giving the nation a direction for tomorrow in the Materials and Metallurgical Engineering sectors. The faculty members, students and staffs have been continuously putting their best to incorporate their contribution in the mentioned activities. Some of the salient achievements are listed as follows:

FACULTY :

1	**Dr. B. Kumar** PhD (IIT, Kharagpur)	Professor & HoD
2	**Dr. D. Roy** PhD (IIT, Kharagpur)	Professor
3	**Dr. G. Das** PhD (IIT, Mumbai)	Professor
4	**Dr. B. Mallik** PhD (IIT, Kharagpur)	Associate Professor
5	**Dr. C. Chattopadhyay** PhD (IIT, Kanpur)	Assistant Professor
6	**Dr. R. K. Gupta** PhD (Brown University, USA)	Assistant Professor
7	**Mr. K. Sikdar** M.Tech (IIT, Kanpur)	Assistant Professor
8	**Dr. Tapabrata Maity** PhD (IIT, Kharagpur)	Assistant Professor

ACTIVITIES

Academic Activities:

Number of subjects offered by the department:

Name of Course	No. of Subjects Offered
B. Tech.	30
M. Tech. Courses (Industrial Metallurgy)	12

➢ Publications :

1. ***K. Sikdar, B. Roy, A. Mahta and D. Roy*** "Enhance Thermal Stability of Nanocrystalline Cu-Al alloy by nanotwin nanoprecipitate" Journal of Alloys and Compounds, Volume- 922, 20 November, 2022, 166273
2. ***N B Dhokey, V S Poddar, P S Kolhe*** "Evaluation of Magnetic Properties of Ceramic Coated Soft Magnetic Composite and its simulation for Microwave Devices" ECS Journal of Solid State Science and Technology 2022 vol. 11 (5).
3. ***Y P Fatangade, N B Dhokey, V S Poddar*** " Experimental and Mathematical analyses of Process parameters for roll compaction of steel powder" Materials Today: July, 2022
4. ***Shweta Shukla, B Nagamani Jaya and V S Raja*** " Understanding the role of Matrix precipitates on the environmentally assisted cracking behaviour of AA7050 Alloy" Corrosion Science, Vol. 201, June 2022, 110281
5. ***Sunil Kumar Kashyap and Rahul Mitra*** "Effect of LaB6 addition on compressive creep behavior with simultaneous oxide scale growth of ZrBr2- SiC Composites" Journal of The American Ceramic Society, (2022) (https://doi.org/10.1111/jace.18799).
6. ***Nidhi Khobragade, Tapabraity Maity, Anna Swiderska*** – 'Sroda', Gierlotka Stanislaw, Witold Lojkowski, Pokula Narendra Babu, Snehanshu Pal, Debdas Roy "Dislocation entangled mechanisms in Cu-graphene nanocomposite fabricated by high pressure sintering", Materials Characterization, Volume 195, (2023), 112524.
7. ***Shweta Shukla, N. Jaya Balila, V.S. Raja,*** "Micro-mechanism of Deformation accommodation in AA 7050 alloy in the presence of hydrogen, Journal of Alloys and Compounds, Volume 947, (2023) 1695596.
8. ***Monojit Das, Rajat Mishra, Palash Das, Sunil Kashyap, Sushanta panda, Rahul Mitra, Peter Owvor, Amit Arora,*** "Controlled directionality in 3D printing of graphite reinforced polymer composite with enhanced mechanical properties", Composite Science and Technology, Volume 235 (2023), 109955.
9. ***Poddar V., Dhokey N., Gole A., Dongare R,*** Remarkable Effect of Graphene on the Properties of FECoCrNi- based High Entropy Alloy" Prasad R, Sahu R, Sahoo K L, Jadhav, G.N (eds) Advancement in Materials Processing Technology, Springer Proceedings in Materials, Vol. 12, Springer Singapore., 2022
10. Siddharth, KS Arora, T **Maity, D Roy**, Fatigue life assessment of dissimilar thickness resistance spot welded C-Mn steel using Weibull distribution Welding International 36 (4), 193-207, 2022
11. N Khobragade, T **Maity,** A Åšwiderska-Åšroda, G Stanislaw, W Aojkowski, Dislocation entangled mechanisms in cu-graphene nanocomposite fabricated by high-pressure sintering, Materials Characterization 195, 112524, 2022
12. N Kumar, T **Maity**, KS Arora, N Shajan, S Hembrom, **D Roy,** Study of Laser Welding Process Parameter on the Microstructure and Mechanical Properties of Dissimilar Joining of Dual-Phase DP780 and Cold-Rolled CR340 Steel, Materials Performance and Characterization 12 (1), 79-89, 2022

13. **Dr. Banshidhar Mallik** "Pollution Prevention and Industrial Saftey Management For Human Rights Protection". Page 26-28.Journal of the Citizen's Human Rights Clinic, Odisha. (Special Issue,December 10,2022) Bharti Publication, Kolkata. (ISBN No.9 788195 948659)
14. Rahul Samanta, Arindam Biswas, Apurba Das, Varsha Mitra, Arijit Sinha, **Debdas Roy**, Gurudas Mandal, Atul Bandyopadhyay "An Ancient Traditional Indian Archaeometallurgical Artefact: Dokra Journal of the Institution of Engineers (India): Series D (2022)
15. **K. Sikdar** , B. Roy, A. Mahata , **D. Roy** "Enhanced thermal stability of nanocrystalline Cu-Al alloy by nanotwin and nanoprecipitate Journal of Alloy and Compounds Volume 922, 20 November 2022,66273
16. S.K. Pradhan, Snehashish Tripathy , Rajan Singh , Premkumar Murugaiyana, **Debdas Roy**, Manoj M. Humanea, Sandip Ghosh Chowdhury, "On the grain boundary character evolution in non equiatomic high entropy alloy during hot rolling induced dynamic recrystallization" Journal of Alloy and Compounds Volume 922, 20 November 2022, 166126
17. Siddharth, Kanwer Singh Arora, **Tapabrata Maity, Debdas Roy,** "Fatigue life assessment of dissimilar thickness resistance spot welded C-Mn steel using Weibull distribution" Welding International Volume 36, 4 (2022) Pages 193-207

➢ Participation in International/National conference:

1. ***Dr. Tapabrata Maity, Assistant Professor,*** Department of Materials & Metallurgical Engineering participated in International Conference on Powder Metallurgy & Participated in International Conference on powder Metallurgy & particular Materials 2023(PM-23) and 48th Annual Technical Meeting of PMAI at Hotel Lalit, Mumbai held during 13th -15th March, 2023
2. ***Dr. Debdas Roy, Professor*** participated in 8th International Conference on Nanostructured Materials by Severe Plastic Deformation (Nano SPD8) to be held at HSC Bangalore during the period from 26th February to 3rd March 2023.
3. ***Dr. Banshidhar Mallik, Associate Professor*** presented a research paper in International Conference on "Frontiers in Materials for Technological Applications (FIMTA-2022)" with effect from 3rd to 5th August, 2022 in CSIR-IMMT, Bhubaneshwar.
4. ***Vaishali Poddar, Akshta Kadam, Rutuja Sangale, Narendra Dhokey***" New Scalable synthesis route for High Entropy alloys and its High Temperature wear resistance" International conference on Powder Metallurgy (PM-22) organized by PMAI I Virtual Mode during 18th-20th April, 2022
5. **Vaishali Poddar, *Narendra Dhokey*** " Transition Metal Based Thermo electrics for Harvesting waste energy with improved efficiency" International Conference on Powder Metallurgy (PM-22) organized by PMAI in virtual mode during 18th- 20th April, 2022.
6. ***Shweta Shukla, B nagamani Jaya, V S Raja***" Understanding the influence of GP II and ☒'on the environmentally assisted cracking behavior of AA7050 alloy in cathodically charged NaCl solution" EUROCORR- 2022 (Accepted)

7. ***Markush Bakhla, Ajay Kumar Yadav, Binod Kumar*** " Experimental Study on the effect of oxygen in Argon as shielding gas on corrosion behavior of dissimilar weld joints of Austenitic and Ferritic stainless Steels" International conference on Materials Science and engineering ICMSE- 22 held at NIT Jallandhar, 11-12th June, 2022

8. ***Markush Bakhla, Ajay Kumar Yadav and Binod Kumar*** "Experimental study of the effect of Oxygen in Argon as shielding Gas on corrosion behavior of dissimilar weld joints of Austenitic and Ferritic Stainless Steels" International conference on materials Science and Engineering, IOP Publishing, 1248, (2022), 012044.

9. N. Khobragade, **T. Maity, D. Roy,** Dislocation entangled mechanisms in Cu-Graphene nanocomposites by high-pressure sintering, NanoSPD 8, 26 Feb-3 March, IISc Bangalore, 2023.

10. T. Pal, **T. Maity, D. Roy**, Development of Al3BC reinforced novel in-situ Al-based metal matrix composites via warm-extrusion, IIT Roorkee, Advances in materials & processing: Challenges & Opportunities, October 17-19, 2022.

11. **Banshidhar Mallik,** Participated and presented Paper in an Internatinal Conference on "Frontiers In Materials for Technological Applications".(August 03-05,2022) organised by CSIR-Institute of Minerals and Materials Technology,Bhubaneswar. Name of Paper"Synthesis and Characterisation of Al-based In-situ Metal Matrix Composites by Stir Casting."

12. **Banshidhar Mallik**, Participated and presented Paper in an Internatinal Conference on "Multidisciplinary reasearch in Engineering, Science, Management, Humanities and Education".(Online) Organised by VGIET,Jaipur,Rajsthan,Dt.07-08 th. May 2022. Name of Paper: Synthesis and Characterisation of chromium oxide (Cr2 O3) and Aluminium oxide (Al2O3)cladded coating on Mild Steel using TIG method.

13. **Banshidhar Mallik**, Participated and presented Paper in an Internatinal Conference on "Study on Synthesis and Characterisation of Al-Base In-situ Metal Matrix Nano Composites by Stir Casting".at the International Conference on Nanomaterials and Nanotechnology, held during March27-28,2023 at Paris,France.

14. **Banshidhar Mallik,** Participated in an Internatinal Workshop on "Remanufacturing Capability Building" jointly organised by (NIAMT) and (FAMFI) from 15th-18th September 2022.

15. Rahul Samanta, Arghya Majumder, Apurba Das, Arijit Sinha, **Debdas Roy,** Gurudas Mandal, "Assessing an Ancient Traditional Lost Wax Processing of Cu-Zn/Cu-Sn Alloy: Dhokra Art" 1st International conference on Future of Engineering (ICFE-2022). 22-23rd September 2022.

16. Nidhi Khobragade, **Dr. Tapabrata Maity, Dr. Debdas Roy,** Dislocation entangled mechanisms in Cu-Graphene nanocomposites by high-pressure sintering on 8th International Conference on NanoSPD8" 26th Feb to 3rd March 2023, IISc, Bangalore.

➢ Patent/Project :

1. DST-SERB CRG project running period of 2021-2024. Title: Development of Al3BC reinforced novel in situ Al based MMCs via warm extrusion.

2. ***Debdas Roy***, "Development of an advancing material for electrical engineering, based on copper powder alloys with nanocrystalline dispersed tungsten inclusions" Funding Agency: India-Belarus: DST/INT/BLR/P-44/2023 (Amount: 14.80 Lakh)

3. ***Debdas Roy,*** "Development of Al_3BC reinforced novel in-situ Al-based metal matrix composites via warm -extrusion for commercial- scale production, "Funding agency: DST-SERB File Number: CRG/2020/005600 (Amount: 28 lakh)
4. ***Debdas Roy,*** "Development of bulk Nanocrystalline Cu-Nb-Zr alloys using laser assisted manufacturing for structural members of landing gears in Aerospace applications" Funding agency: AICTE, File Number: 8-124/FDC/RPS/POLICY-I/2021-22 (Amount: 15.66 lakh)
5. Development of bulk Nanocrystalline Cu-Nb-Zr alloys using laser assisted manufacturing for structural members of landing gears in Aerospace applications Funding agency: AICTE, File Number. 8-124/ FDC/ RPS/POLICY-I /2O21-22(Amount Rs/-15.66 Lakh)
6. Development of a advancing material for electrical engineering, based on copper powder alloys with nanocrystalline dispersed tungsten inclusions Funding Agency: India-Belarus: DST/INT/BLR/P-44/2023 (Amount: 14.80 Lakh)
7. Patent: Indian: Patent No: 390367, Title: A BONE IMPLANT SYSTEM Application No: 2464/DEL/2013, Application Date: 20/08/2013, Date of Grant: 25/02/2022

➢ Enrollment of doctoral scholars :

1. Markush Bakhla, PhD Student with Institute Fellowship under the supervision of Dr. Binod Kumar.
2. Serfraj Alam, Part time Research Scholar under the supervision of Dr. G. Das & Dr. R.K. Gupta
3. Purnanand Pathak, Part time Research Scholar under the supervision of Dr. G. Das
4. Subhra Dhara, Part time Research Scholar under the supervision of Dr D. Roy.
5. Somnath Kumar Part time Research Scholar under the supervision of Dr. Ratnesh Kr. Gupta.
6. Bishnu Kumar Das, Part time Research Scholar under the supervision of Dr. Chinmoy Chattopadhyay & Dr. D. Roy.
6. Amit Kumar Gupta, PhD student with Institute Fellowship under the supervision of Dr. G. Das & Dr. B. Mallik.

➢ Award /honour received:

1. Banshidhar Mallik, Honoured by CHRC Odisha as Eminent Guest on World Human Rights Day, 10th December 2022.
2. D. Roy, 1st Prize Best paper presentation. 3rd International Conference on Innovative Research in Science, Technology, Agriculture, Environment, Business Management and Humanities (STAEBM-2023), 13th -14th May-2023, NIT, Srinagar, Jammu and Kashmir-190006
3. D. Roy, Fellow of Institute of Engineers India (IEI) 2022

➢ Event organized :

1. Banshidhar Mallik, organised One Day Workshop on "Recent Trends in Material Processing & NDT" (Online) Dt.21/04/2023 as Coordinator.
2. Banshidhar Mallik, organised 50th. and 51st. All India Entrance Examination for A.D.C courses and Worked as Centre Superintendent .
3. Banshidhar Mallik, organised Regular Exams. and other related activities for A.D.C Course students.

➢ Development/Renovation of laboratories :

1. Pursuing to develop NDT Laboratory.
2. In a process to renovate Fuel, Furnace and Refractory Laboratory.
3. Departmental Facility development activities
4. Development of Powder Metallurgy Laboratory
5. Renovation of Metallography Laboratory

➢ Visit at or collaboration with University abroad:

1. **Banshidhar Mallik**, Talked with Prof. Henriqe Eisi Toma, University of Sao Paulo,Brazil for collaboration.
2. **Banshidhar Mallik,** Planning to collaborate with Prof. Krisna Dev Kumar of Canada Metropolitan University in the area of Fault diagonsis and Applications of AI &ml.
3. **Tapabrata Maity** Visited foreign university (TALTech Estonia) for scientific research collaboration in Powder Metallurgy during the period of 2023 (01-06-2023 to 01-07-2023) and 2022 (15-06-2022 to 20-07-2022). Department of Mechanical and Industrial Engineering, Prof. Dr.-Ing. Prashanth Konda Gokuldoss, Additive Manufacturing Laboratory, Tallinn University of Technology, Estonia, Ehitajate tee 5, 19086 Tallinn, Estonia,Ph. +372-620-3378

➢ Presentation/Symposia/Workshop/ Training/FDP/Any Others

1. ***Mr. Koushik Sikdar, Assistant Professor,*** Department of Materials & Metallurgical Engineering participate in Two Day Faculty Training Workshop on "Functional Nano-Bio Materials-2023 (FNBM-2023) organized by the Department of Bioengineering & Biotechnology, in BIT Mesra, Ranchi held from March 27th – 28th, 2023
2. ***Dr. Ratnesh Kumar Gupta, Assistant Professor,*** Participated in short term course on "metals and alloys for defense applications" IIT BHU during 4th-08th March 2023.
3. ***Mr. Koushik Sikdar, Assistant Professor*** to attend on fine certificate course by Swayam-NPTEL duration of 8 weeks scheduled form January, 2023.
4. ***Mr. Koushik Sikdar, Assistant Professor*** attended online workshop for self-Paced Mendeley.
5. ***Dr. Banshidhar Mallik, Associate Professor*** attended SFRB workshop held at NIT Rourkela from 18/04/2022 to 22/04/2022.
6. ***Dr. Ghanshyam Das, Associate Professor*** attended the one week training program on ""Advanced Instrumental Techniques in Chemistry and Material Science" held at BIT Mesra, Ranchi from 09-15th May, 2022.
7. ***Mr. Koushik Sikdar, Assistant Professor*** enrolled in the National Initiative for Technical Teachers Training (NITTT) modules.
8. **Dr. Tapabrata Maiti** Industrial Vocational Training on Casting, Forging, Heat-treatment and Machining (FFP & HMBP) from Heavy Engineering Corporation Limited (HEC), Ranchi in 16/03/2023 to 30/03/2023
9. **Dr. Tapabrata Maiti** Attended FDF program (AICTE Training and Learning (ATAL) Academy) in Blended/Hybrid FDP on â€˜Advanced Remanufacturing Technologyâ€™ between 12/12/2022 to 19/12/2022

10. Banshidhar Mallik, Worked as External Examiner for M.Tech. course at CIT,Ranchi (under JUT), 2022.
11. Banshidhar Mallik, Delivered an Invited lecture " on applications of NDT" courtesy IEI, Ranchi Chapter.

Invited Talk:

1. Vaishali Poddar, Thermoelectricity: A multidimensional renewable Technology" delivered in International conference PMAI (PM-22) organized by PMAI in virtual mode during 18th- 20th April, 2022
2. Prof. Debdas Roy delivered a talk as an Invited Speaker in the 8th International Conference on Nano SPD8 - 26th Feb to 3rd March 2023, IISC Bangalore

Special achievements:

Debdas Roy

1. Selected Fellow of Institution of Engineers (IEI) -2022
2. Selected Editorial Board Member of Journal of Basic and Applied Sciences
3. Organized One Day workshop on "National Board Of Accreditation (NBA)- Approval Process and Documentation" 15th July, 2022

Vaishali Poddar

I. Awarded Conference Secretariat for conducting International Conference on PMAI-2022 in Virtual Mode during 18th- 20th April, 2022

Administrative Assignments:

Faculty members of the department were engaged in various administrative activities.


राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान
नूतनं विज्ञान विश्वम्
NIAMT
RANCHI
FORMERLY HIEPT
NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

DEPARTMENT OF APPLIED SCIENCES AND HUMANITIES

About Department:

The department is an integral part of the Institution, and it is ready to meet any responsibility assigned it to facilitate the progress of different courses. The department comprises Faculty members of the specialization like Physics, Chemistry, Mathematics, Environmental Engineering, Electrical Engineering, Electronics Engineering and Humanities.

The department provides excellent laboratory facilities for both undergraduate and post graduate students. It provides wide spectrum of Digital Electronics, Analog Electronics, Microprocessor, Control system, Electrical Machine, Electronics, Physics, Chemistry, Instrumentation, Environmental Engineering etc, laboratories. Apart from these students are offered different projects. The technical and general staff of this department is very helpful to conduct the routine practical of UG &PG programs. The department has started two years full-time course in M. Tech (Environmental Engineering) in 2007 to cater the specific requirement of industries. The syllabus of the course has been designed to full fill the requirement of industries. The department is supporting the UG courses of the Institute offering a compulsory subject in environmental engineering. The department is having various equipment required for courses like water pollution, air pollution, noise pollution, etc. It also serves the post graduate students of Environmental Engineering to augment the research and consultancy facilities in this emerging field.

Faculty

1	**Dr. S. R. Kumar** Ph. D. (Materials Science)	Professor & HOD
2	**Dr. Anil Kumar** M. Tech. (Surface Sc. and Engg.); Ph. D (Engg.) in Metallurgy and Materials Engineering	Professor
3	**Dr. Arvind Pandey** Ph.D (Physics)	Professor
4	**Ms. Sujata S. Gupta** MA (English)	Assistant Professor
5	**Ms. Madhu Kumari** B. Sc. Engg. (E & C), M. Tech. (IT)	Assistant Professor
6	**Dr. Partha Sarathi Mondal,** Ph. D (Physics)	Assistant Professor
7	**Dr. Vikash Kumar Gupta** M. Tech. (Electrical Engg.) &Ph.D(Electrical Engineering)	Assistant Professor
8	**Dr. Subhankar Basu** M. Tech. (Environmental Engineering) Ph. D (Bioscience Engg.)	Assistant Professor
9	**Dr. H. Vignesh Babu** Ph.D(Chemistry)	Assistant Professor
10	**Dr. Abhilash T. Nair** Ph.D (Environmental Engineering)	Assistant Professor
11	**Dr. Sriparna Chattopadhyay** Ph.D (Mathematics)	Assistant Professor

ACTIVITIES

A. Academic Activities

(i) The Department of Applied Sciences & Humanities (DASH) offers courses for B.Tech. and M. Tech. programmes.

(ii) DASH offers M. Tech. programme in Environmental Engineering.

B. Offers Doctoral Programme.

C. Research and Development Activities

➢ Awarded Ph.D students :

(a) Sudeshna Surabhi has awarded in 17th February, 2023, Research Topic – "Synthesis and characterization of CdTe thin film in nor aqueous", under the supervision of Dr. S.R. Kumar.

➢ Publications :

1. Kumar Anurag, **S.R. Kumar,** Scalable Preparation of High-Quality Graphene by Electrochemical Exfoliation: Effect of Hydrogen Peroxide Addition, Bull. Mater. Sci., 46(2023), 42(SCIE).
2. Sudeshna Surabhi, Kumar Anurag, **S.R. Kumar,** Development and Characterization of As- Deposited CdTe Thin Films in Non-aqueous Medium, **Book Entitle: " Diversity and Applications of New Age Nanoparticles", IGI Global,** DOI: 10.4018/978-1-6684-7358-0, ISBN10: 1668473585.
3. Deepti, **Partha Sarathi Mondal, Chittatosh Pal, Amitesh Kumar, Subrata Majumder,** "Label-free ultrasensitive electrochemical dopamine sensor fabrication using a low-cost pencil graphite electrode" Colloids and Surfaces A: Physicochemical and Engineering Aspects, 671(2023) 131630.
4. **Ankit Kumar Singh, Partha Sarathi Mondal,** "Anomalous Ca Content Dependence of Dielectric Properties of Charge-Ordered Pr 1−x Ca x MnO 3 as a Signature of Charge-Ordered Phase Modulation, Condensed Matter, 7(2022)58.
5. **Ankit Kumar Singh and Partha Sarathi Mondal,** "Enhanced Electrocaloric Effect in Lead Zirconate Titanate Ceramic Wafer" Journal of The Institution of Engineers (India): Series D,103 (2022)157.
6. **Deepti, Partha Sarathi Mondal,** "Electrochemical detection of arsenic in drinking water using low-cost electrode", 66(2022) 3199. (Conference Publications)
7. **Raj Kumar, Ankit Kumar Singh, Partha Sarathi Mondal,** "Study of UV assisted photocatalytic degradation of organic dye", 66(2022) 3244.
8. Amit Kumar Sahoo, Sudhansu Kumar Mishra and **Vikash Kumar Gupta.** "Identification and Control of Maglev System using Fractional and Integer Order PID Controller". Journal of Intelligent & Fuzzy Systems. vol. 44, no. 5, pp. 7277-7289, 2023.
9. **Amar Jyoti Saikia, Diptimayee Tripathy and Arvind Pandey**, La2Mo2â€“xVxO9â€“Î´ (0 â‰¤ x â‰¤ 0.100): The Factors Affecting Ionic Conductivity in XRD and Raman Studies, Bulletin of the Lebedev Physics Institute 50 ((2023) 173â€“180. https://doi.org/10.3103/S106833562305007X
10. Recent Publication by Diptimayee Tripathy, Jyotshna Saikia, Amarjyoti Saikia, **Arvind Pandey**, On the structure and ionic conductivity of Bi2V1-xTix/2Gdx/2O5.5-Î´ system, Physica B 627 (2022) 413596 (1-8).
11. Sudharshan Reddy, **Abhilash T. Nair,** 2022. The fate of microplastics in wastewater treatment plants: An overview of source and remediation technologies. Environmental Technology &

Innovation, 28, 102815. **https://doi.org/10.1016/j.eti.2022.102815.**

12. **Abhilash T. Nair**, Aneesh Mathew, Archana A R, M Abdul Akbar, 2022. Use of hazardous electric arc furnace dust in the construction industry: A cleaner production approach. Journal of Cleaner Production, 377, 134282. **https://doi.org/https://doi.org/10.1016/j.jclepro.2022.134282.**
13. P.R. Gokul , Aneesh Mathew, Avadhoot Bhosale**, Abhilash T. Nair,** 2023. Spatio-temporal air quality analysis and PM2.5 prediction over Hyderabad City, India using artificial intelligence techniques. Ecological Informatics, 76, 102067. **https://doi.org/10.1016/j.ecoinf.2023.102067.**
14. Indu Kumari, **Abhilash T. Nair,** 2022. Biofuel Production from Conventional Feedstocks: Challenges and Alternatives, in: Guldhe, A., Singh, B. (Eds.), Novel Feedstocks for Biofuels Production. Springer Nature Singapore, Singapore, pp. 115. **https://doi.org/10.1007/978-981-19-3582-4_1**
15. Chintavi Patel, **Abhilash T. Nair,** Abhipsa R. Makwana, 2023. Electrooxidation of leachate : Understanding the effect of cathode material and process optimization using Response surface methodology. Materials Today: Proceedings, 77,148155. **https://doi.org/10.1016/j.matpr.2022.11.033.**
16. Mahima Prajapat, Abhipsa R Makwana, **Abhilash T. Nair,** Snehal A Popli, 2022. Biotransformation of Flower Waste: Effect of Bulking Agent and Microbes, in: IOP Conference Series: Earth and Environmental Science. p. 012037. **https://doi.org/10.1088/1755-1315/1086/1/012037**
17. 2D-Channel-forming Catechol-based Polyphosphates as Solid Polymer Electrolytes and their Microstructure-assisted Li-ion Conductivity, S. Billakanti, A. K. Othayoth, **H. Vignesh Babu,** A. M. Shanmugharaj, P. Bantumelli and K. Muralidharan, ACS Applied Energy Materials, 2023, 6, 52905299.
18. Amar Jyoti Saikia, Diptimayee Tripathy and **Arvind Pandey**, The Factors Affecting Ionic Conductivity in La2Mo2â€“xVxO9â€“Î´ (0 â‰¤ x â‰¤ 0.100): XRD and Raman Studies, Bulletin of the Lebedev Physics Institute 50 ((2023) 173â€“180. https://doi.org/10.3103/S106833562305007X
19. Diptimayee Tripathy, Jyotshna Saikia, Amarjyoti Saikia, **Arvind Pandey**, On the structure and ionic conductivity of Bi2V1-xTix/2Gdx/2O5.5-Î´ system, Physica B 627 (2022) 413596 (1-8).
20. 2D-Channel-forming Catechol-based Polyphosphates as Solid Polymer Electrolytes and their Microstructure-assisted Li-ion Conductivity, S. Billakanti, A. K. Othayoth, **H. Vignesh Babu,** A. M. Shanmugharaj, P. Bantumelli and K. Muralidharan, ACS Applied Energy Materials, 2023, 6, 52905299.

➢ Participation in International/National conference:

1. ***Dr. Shubhankar Basu***, Assistant Professor, Department of Applied Sciences & Humanities participated in the Online/Offline International Workshop and Conference on Membrane Assisted Water Purification Process (ICMW-2023) organized by MG University Kottayam, Keral held during 9-12 march, 2023.
2. ***Dr. Partha Sarathi Mondal***, Assistant Professor attended International Conference on "Advanced Materials : Properties and Applications (ICAM 2023)"and present a research paper titled " Enhanced Electrocaloric effect in lead zirconate titanate ceramic wafer:"to be held at Goa University during 20 to 24 February, 2023.
3. ***Dr. Subhankar Basu***, Assistant Professor, attended and gave oral presentation on "Incorporation

of porous materials in forward osmosis membrane for increased water recovery from waste streams" in the conference ICWT 2022, IIT Bombay, held during 1st and 2nd December,2022.

4. ***Dr. Subhankar Basu, Assistant Professor*** to attended conference and deliver an oral presentation "A circular economy for EV battery recycling in India" in the ICRSC-2022 conference organized by IUMSE from 9th to 11th September 2022 at International Unit on Macromolecular Science and Engineering, Kerala.
5. ***Dr. Subhankar Basu, Assistant Professor*** attended conference and presented a paper "Effect of temperature variation in co-composting of lower and fruit wastes using rice husk as bulking agent" in the International Conference (ICIET 2022) organized by JNTUH from 15th to 17th September, 2022 at Jawaharlal Nehru Technological University, Hyderabad.
6. ***Dr. Abhilash T. Nair, Assistant Professor*** attended & presented paper in International Online Conference on Reuse, Recycling Upcycling, Sustainable Waste Management and Circular Economy (ICRSC- 2022) organized by Mahatma Gandhi University, Kerala from 9 to 11th September, 2022.
7. ***Kumar Anurag, S.R. Kumar,*** A new route for preparing Graphene flakes by electrochemical exfoliation in non-aqueous medium, International Conference on Advanced Functional Materials: Future Perspectives(AFMFP-2022), 6th-8th August 2022, Dr. BR Ambedkar National Institute of Technology Jalandhar, Jalandhar(Punjab), India.
8. ***Kumar Anurag, S.R.Kumar,*** Electrochemically Exfoliated graphene in Non-Aqueous medium, National Conference on Smart Material for Future Technology(NCSMFT-2022), 29th-30th November 2022, North Eastern Hill University, Shillong-793022, Meghalaya, India.
9. Kumar Anurag, **S.R.Kumar,** Electrochemical Exfoliation of Graphite into Graphene in Aqueous Solutions of Inorganic Salt: Effect of Concentration Variation of H_2O_2, 7th International conference on Nanoscience and Nanotechnology(ICONN), 27th -29th March 2023, SRM Institute of Science and Technology, SRM Nagar, Kattankulathur-603203, Tamil Nadu.
10. ***Dr. Partha Sarathi Mondal*** Presented a paper on "*Electrocaloric Effect in Lead Zirconate Titanate Ceramic Wafer*" **International Conference on advanced Materials**: Properties and Applications (ICAM), held at Goa University, Goa during February 20-24, 2023.
11. On vertex connectivity of zero divisor graphs of finite commutative rings: **S. Chattopadhyay**, K. L. Patria, B.K. Sahoo (communicated)

➢ Patent/Project :

1. Externally funded project on "Tuning of electrocaloric efficiency in multi-element substituted perovskite relaxor ferroelectric ceramics using high entropy design concept." Sponsoring agency: Department of Science and Technology, Government of India. Sanction amount and date: Rs. 19.5 Lakh and 12-07-2022, Supervisor – Dr. Partha Sarathi Mondal.
2. Externally funded project on "Development of a promising material for electrical engineering based on powdered copper alloy with nanocrystalline dispersed tungsten inclusions". Sponsoring agency: Department of Science and Technology, Government of India. Sanction amount and date: Rs. 13.8 Lakh and 07-02-2023. Co-PI : Dr. Partha Sarathi Mondal.
3. Project submitted to CRG, DST as Co-PI (March 2023): The title of the project " Development of 3D-covalent organic framework embedded with nanomaterials for the heavy metal remediation from wastewater". PI- H. Vignesh Babu.
4. The project titled "Development of composite materials with low flammability based on epoxy resins and nanoscale organic-inorganic hardeners" is awarded under International Cooperation Division of DST in collaboration with Russian Science Federation (RSF) on Feb 2023. My role would be Co-PI on this project. Sanctioned amount for the project is Rs. 9147964.00 Duration of the project would be Feb 2023 to Jan 2026.

➢ Enrollment of doctoral scholars :

1. Dilip Kumar Ghara, Part time Research Scholar under the supervision of Dr. Partha Sarathi Mandal
2. Montek Mohapatra, PhD student with Institute Fellowship, under the supervision of Dr. Arvind Panday & Dr. P.S. Mondal.

➢ Award /honour received:

I (February 2022) by NERIST Nirjuli under sole supervision of Arvind Panday.

➢ Development/Renovation of laboratories :

1. Arvind Panday has been actively engaged with development of condensed Matter Physics Laboratory (Research Laboratory)
2. H. Vighnesh Babu been actively engaged with developed the XRD instumentation facility for the central instrumentation facility of NIAMT, involved as the indentor & representative from the department of applied sciences and humanities.
3. H. Vighnesh Babu been involved in the upgradation of the lab by improving the infrastructure of chemistry laboratory by purchasing the necessary lab furniture like fume hood and working bench lab furnitures, safety shower, etc.,

➢ Presentation/Symposia/Workshop/ Training/FDP/Any Others

1. **Dr. Anil Kumar**, Professor, Department of Applied Science & Humanities attended the meeting of outreach coordinator of IIRS, ISRO, Dehradun on March 27, 2023
2. **Dr. Sriparna Chattopadhyay**, Assistant Professor to attend on line Faculty Development Programme (FDP) certificate course on "Graph theory" by Swayan – NPTEL for 8 weeks.
3. **Dr. Subhankar Basu**, Assistant Professor subscribed to two years membership of International Water association (IWA) London.
4. **Dr. Abhilash T. Nair,** Assistant Professor, renewed the two-year membership of International Water Association (IWA) London..
5. **Dr. Abhilash T. Nair,** Assistant Professor, attended Two weeks Industrial Training programme at HEC Ltd. Ranchi, held during 26th December- 8th January 2023.
6. **Dr. H. Vignesh Babu,** Assistant Professor, attended Two weeks Industrial Training programme at HEC Ltd. Ranchi, held during 26th December- 8th January 2023.
7. **Dr. Sriparna Chattopadhyay,** Assistant professor, attended online certificate course on "Eight Modules 2,4,6 and 8" conducted by NITTTR in collaboration with AICTE.
8. **Dr. Anil Kumar,** Professor attended the course on Geospatial Science and Technology from 2nd June 2022 to 29th June, 2022 at Chitkara University (H.P).

➢ Ph.D. Award

"Synthesis and Characterization of CdTe Thin Film in Non Aqueous Medium" doctoral degree was awarded to Sudeshna Surabhi under Ranchi University, Ranchi in February 2023. She has carried out her doctoral degree under the supervision of S.R.Kumar.

➢ Administrative Assignment

Faculty members of the department were engaged in various administrative activities.


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DEPARTMENT OF ELECTRONICS AND COMPUTER ENGINEERING

About Department:

The department was established in November 2020 with the mandate of starting two new programmes, viz., B. Tech. in Computer Engineering, and B. Tech. in Electronics and Automation Engineering, and to carry out research to support the Institute's vision of becoming an advanced centre for manufacturing research.

The B. Tech. programme in Computer Engineering is a blend of Computer Science and Engineering and Digital Manufacturing. The programme commenced from the 2022-23 academic session with an approved intake of 60. The B. Tech. programme in Electronics and Automation Engineering will also be a unique blend of Electronics and Communication Engineering and Manufacturing Automation, and it will be launched during 2024-25 academic session. These courses are expected to train the students in two distinct but industrially relevant areas under one programme. The laboratories needed for the B. Tech. programme in Computer Engineering are under development and will be established in a phased manner

Faculty

The department has one regular faculty, and efforts are on to recruit more regular faculty.

Sl. No.	Name and qualification	Designation
1	**Dr. G. Rajamohan** B. E. (Mech.), M. E. (Mfg.), PhD (Mech.), MIE	Professor and HOD

Activities

A. Academic Activities

The B. Tech. programme in Computer Engineering has been started from the academic session 2022- 23 with an approved intake of 60 students.

B. Research Activities

1) **PhD guidance:** Mr. Shariqul Hoda, who joined as a fulltime scholar with Institute Scholarship is continuing his research work on form metrology under the guidance of Dr. G. Rajamohan.

2) **M. Tech. guidance:** The following M. Tech. dissertations were completed during this period.

   a) Palash Ghosh: Study on the selection of parameterization method for fitting freeform curve- Jointly guided by Dr. G. Rajamohan and Dr. A. Mandal (Department of Mechanical and Manufacturing Engineering).

   b) Prameet Ranjan: Optimization of cutting parameters during boring operation on Al 6061 - Guided by Dr. G. Rajamohan.

FDP/Training Courses Attended/Organized

1) Dr. G. Rajamohan successfully completed the AUKOM GD&T certification programme at Carl Zeiss Academy, Bangalore during May 2022. Subsequently, he has also been awarded the certification as "AUKOM Metrologist".

Administrative Assignment

1.	Dr. G. Rajamohan	• Head of the Department • Member of Library Committee and Proprietary Committee. • In-charge for Metrology Laboratory and FMS Laboratory • QIP Coordinator • Carried out the work entrusted by the Director, NIAMT from time to time

GENERAL ADMINISTRATION

APPOINTMENT : NIL

RESIGNATION : NIL

RETIREMENT :

Sl.No.	Name	Designation	Date of Retirement
1.	Smt. Ramia Oraon	Sweeper	31.12.2022

DEATH : Prof. Vijay Toppo

STAFF STRENGTH AS ON 31.03.2023

Director	01
Professor	17
Associate Professor	02
Assistant Professor	25
Registrar	01
Dy. Registrar	01
Sr. Medical Officer	01
Superintendent	01
Assistant Registrar	02
Assistant Superintendent Workshop	01
Hindi Officer	01
Sr. Technical Assistant	02
Assistant (SG-II)	05
Sr. Assistant	02
Technician (SG-II)	05
MTS	11
Total :	**78**

ACADEMIC ACTIVITIES

Regular Activities of Academic Section.

All the regular activities of Academic Section such as conducting semester examinations, publishing of results have been carried out as per schedule. Classes of First semester M. Tech.-2022, B. Tech. -2022 and ADC 2022 had been started as per schedule.

Admission -2022

1. Ph. D. Programme

Admission of Ph. D. students selected through written test & interview were conducted by respective departments.

	Department	No. of seats	No. of seats filled
1.	Metallurgy and Material Engineering	3	2
2.	Forge Technology	3	2
3.	Foundry Technology	3	3
4.	Manufacturing Engineering	3	3
5.	DASH	3	3

2. M. Tech.

Admission through CCMT-2022 & Self Sponsored

	Branch	No. of seats	No. of seats filled
1.	Foundry-Forge Technology	35	09
2.	Manufacturing Engineering	38	16
3.	Materials Science & Engineering	35	05
4.	Environmental Engineering	38	13

3. B. Tech.

Admission through JoSAA/CSAB-2022

Branch	No. of seats (Allotted + supernumerary)	No. of seats filled
Mechanical Engineering	92	85
Metallurgy and Materials Engineering	75	64
Production and Industrial Engineering	64	45
Computer Engineering	64	47

4. ADC (50th) 2022-2024

Admission through written test conducted by the Institute.

Branch	No. of seats	No. of seats filled
Foundry Technology	58	38
Forge Technology	57	35

Students Passed out in 2022

1. M. Tech. (2020-2022)

Branch	No. of students passed out
1. Foundry-Forge Technology	07
2. Manufacturing Engineering	14
3. Materials Science &Engineering	03
4. Environmental Engineering	28

2. B. Tech. (2018-2022)

Branch	No. of students passed out
Manufacturing Engineering	50
Metallurgy and Materials Engineering	52

3. 49th ADC

Branch	No. of students passed out
Foundry Technology	41
Forge Technology	38

M. Tech. 2020-2022 batch (Project Topic branch wise)

Environmental Engineering

Sl. No.	Roll No.	Name of the Student	Project Topic	Name of the Guide
1	AS20M02	Aditya Kumar	Treatment of Sewage Water Using Phytorid Technology (Amravati Colony) Ranchi	Dr. Arvind Pandey
2	AS20M02	Ashok Kumar Mandal	Removal of Fluoride Ions from Aqueous Solution Using Thermally Activated Homogeneous Mixture of Clay and Active Aluminium Oxide by Adsorption	Dr. Subhankar Basu
3	AS20M04	Atul Kumar	Biomedical Waste Management: A Study on Ranchi, Jharkhand	Mrs. Madhu Kumari
4	AS20M05	Avinash Kumar	Analysis, Planning and Designing of Sanitary Landfill Site for Bindu City (Jharkhand)	Dr. Vikash Kumar Gupta
5	AS20M06	Ayan Lodh	The Application of Pyrolysis on Energy Recovery from Plastic Marine Debris (Pmd): A Efficient Way For Waste To Wealth Conversion	Dr. Subhankar Basu
6	AS20M08	Deep Narayan Prakash	Electrochemical Detection of Arsenic in Drinking Water Using Low-Cost Carbon-Based Electrodes	Dr. Partha Sarthi Mondal
7	AS20M09	Deepak Kumar	Health Impact Assessment Due to Long-Term Exposure to Ambient Air Pollution in Indian Cities	Dr. Abhilash T. Nair
8	AS20M10	Gaushul Alam	Catalytic And Non Catalytic Pyrolysis of E- Waste: A Case Study of Waste Printer Cartridge	Dr. Arvind Pandey
9	AS20M11	Krishna Kunal	Estimation of Pollutants Due to Vehicles In Hajipur Industrial Area	Mrs. Madhu Kumari
10	AS20M12	Mukesh Kumar Yadav	Study of Photo- And Piezo- Catalytic Activity of Barium Titanate Ceramic in Degradation of Organic Dye	Dr. Partha Sarathi Mondal
11	AS20M14	Murli Manohar	Surface Water Quality in Hajipur Industrial Area & Its Surrounding: A Case Study	Dr. Shyam Ranjan Kumar
12	AS20M14	Murli Manohar	Surface Water Quality in Hajipur Industrial Area &Its Surrounding: A Case Study	Dr. Shyam Ranjan Kumar

Sl. No.	Roll No.	Name of the Student	Project Topic	Name of the Guide
13	AS20M15	Navneet Kiran	Air Pollutants Analysis from Various Agro Based Industries	Dr. Anil Kumar
14	AS20M16	Nayan Kumar Singh	Study of Ground Water Quality and Drinking Suitability in Hajipur Industrial Area, Vaishali (Bihar)	Dr. Vikash Kumar Gupta
15	AS20M18	Nityanand Kumar	Removal of Tubidity by Using Jamun Leaves/ Mahua Fruits	Dr. H. Vignesh Babu
16	AS20M19	Pawan Kumar	Environmental Analysis of Fly Ash	Dr. Anil Kumar
17	AS20M20	Puja Kundu	Application of Forward Osmosis (Fo) Process for Water from Wastewater	Dr. Subhankar Basu
18	As20M21	Rahul Kumar	Status of Handpump Water in Chas Area of Bokaro a Case Study	Dr. S. R. Kumar
19	AS20M23	Rakesh Ranjan Arya	Waste Water Treatment In Sewerage Treatment Plant	Dr. S. R. Kumar
20	AS20M24	Rakesh Roushan	Study of Eco- Friendly Geopolymer Samples	Dr. Anil Kumar
21	AS20M25	Gude Ramesh	Removal of Selenium Ions from Aqueous Solution Using Activated Natural Clay by Adsorption	Dr. Subhankar Basu
22	AS20M26	Rupam Raj	Variation of Ground Level Ozone Concentration of Different Cities in India on, Before and After Covid-19 Lockdown	Dr. Abhilash T. Nair
23	AS20M27	Sachin Patel	Effect of Land Use / Landcover Change on Surface Temperatures of Urban India	Dr. Abhilash T. Nair
24	AS20M29	Satya Priya	Solid Waste Management in Hajipur and Hajipur Industrial Area: Imperatives for Improvement	Mrs. Madhu Kumari
25	AS20M31	Sujit Kumar	Studies on Biomethanation Potential of Individual Volatile Fatty Acids and Two Stage Anaerobic Digestion of Organic Waste To Generate Value Added Products	Dr. H. Vignesh Babu
26	AS20M32	Surabhi Kumari	Wastewater Treatment Using Phytorid Technology on Swarnrekha River, Namkum Ranchi (Jharkhand)	Dr. Vikash Kumar Gupta
27	AS20M33	Surendra Kumar	Assessment of Ambient Air Quality in Hajipur Industrial Area	Dr. Arvind Pandey
28	AS20M35	Vikash Kumar	"Personal Exposure To Particulate Matter And Its Respiratory Tract Deposition During Commuting In Ranchi,India"	Dr. Abhilash T. Nair
29	AS20M36	Vishwajeet Kumar	Biological Treatment of Industrial Wastewaters for Biogas Generation and Targeted Pollutants Removal	Dr. H. Vignesh Babu

M. Tech. 2020-2022 batch (Project Topic branch wise)

Manufacturing Engineering

Sl. No.	Roll No.	Name of the Student	Project Topic	Name of the Guide
1	ME20M01	Anand Kumar	Solidification Simulation of Steel (Aisi 1026) Casting of Wheel and Analysis of Defects	Dr. Sanjay Kumar & Dr. Himanshu Khandelwal
2	ME20M02	Anil Singh	Synthesis And Characterazation of Al6063 /Al2o3 Nano Particles Reinforced by Ultrasonic Casting Techniques	Mr. S. K. Soren
3	ME20M03	Avinash	The Role of Manufacturing Industry Towards Sustainable Farming: Case Study-Ethanol Produced by Corn Agriculture in India	Dr. Umesh Khandey
4	ME20M04	Devendra Kumar	Machinability Study of En30b Steel in Electrical Discharge Machining (Edm)	Dr. Ratnakar Das
5	ME20M05	Gopal Mahto	Experimental Investigation on Different Process Parameter on Wire Edm of Incoloy 925	Dr. Anoop Kumar Sood
6	ME20M06	Kalyan Kumar Adepu	Mechanical Micro-Drilling of Inconel 625 Superalloy Using Tungsten Carbide Micro-Drill Bit in Deform 3d Software	Dr. Aruna Thakur
7	ME20M07	Kumar Shambhav	Experimental Investigation of Friction Stir Welded Aerospace Grade Aluminium Alloy	Dr. Jagesvar Verma
8	ME20M08	Palash Ghosh	Study on the Selection of Parameterization Method for Fitting Freeform Curve	Dr. Amitava Mondal & Dr. G. Rajamohan
9	ME20M09	Prameet Ranjan	Optimization of Cutting Parameters in Boring Operation	Dr. G.Rajamohan
10	ME20M10	Raghvendra Pratap	Finite Element Analysis of Orthogonal Machining Using Different Machining Parameters Using Rsm Design	Dr. Umesh Khandey
11	ME20M11	Rajan Kumar	Prediction of Critical Damage Location and Phase Transformation in Workpiece During Forging Operation by Numerical Simulation	Dr. Sambit Kumar Parida
12	ME20M12	Rajnish Kumar	Numerical Modeling and Experimental Characterization of Surface Cladding of Wc on Aisi 1020 Steel	Mr. Anand Mohan Murmu
13	ME20M14	Shiv Nath Rajwar	Machinability Study of Aisi 4340 Steel In Turning Process	Dr. Ratnakar Das

M. Tech. 2020-2022 batch (Project Topic branch wise)

Foundry-Forge Technology

Sl. No.	Roll No.	Name of the Student	Project Topic	Name of the Guide
1	FF20M02	Aditya Kumar Singh	Study The Effect of Recrystallization on Plane Strain Cold Forged Aa6082 Alloy	Dr. Rahul Ramesh Kulkarni & Dr. Deepak Kumar
2	FF20M04	Eshutosh Nayak	Optimization of Process Parameters of Gear Blank	Dr. R. K. Ohdar
3	FF20M05	Prashant Kumar Choubey	Effect of Manganese on The Structure Properties of Grey Iron and Ductile Iron	Dr. K. K. Singh
4	FF20M07	Rahul Kumar	Simulation Study to Investigate the Effect of Varying Section Thickness on Stresses and Deformation in Casting	Dr. Nandita Gupta & Dr. Himanshu Khandelwal
5	FF20M09	Saurabh Dixit	Die Design and Optimization of Connecting Rod Using Simulation Software	Dr. N. K. Singh
6	FF20M10	Saurav Keshri	Mechanical Properties and Microstructural Characterization of Multidirectional Forge on Aluminum 6061 Alloy	Dr. Manoj Kumar
7	FF20M11	Somenath Mukherjee	Bimetallic Casting of Aluminium A356 And Copper	Dr. Amitesh Kumar

M. Tech. 2020-2022 batch (Project Topic branch wise)

Materials Science and Engineering

Sl. No.	Roll No.	Name of the Student	Project Topic	Name of the Guide
1	MM20M01	Ajaykumar Udayraj Yadav	Corrosion Behaviour of Dissimilar Weld Joints of Aisi 430 And Aisi 304l in Different Corrosive Media.	Dr. Binod Kumar
2	MM20M02	Amar Kunar	Study of Corrosion Behaviour of Aluminium Alloy 7075 T6 In 1m Hcl, 1m Naoh, And 3.5% of Nacl Soluction	Dr. Ghanshyam Das
3	MM20M04	Junaid Akhter	Development of Multicomponent Solder Alloys	Dr. Debdas Roy

B. Tech. 2018-2022 batch
(Project and Seminar Topic branch wise)
Manufacturing Engineering

Sl. No.	Roll No.	Name of the Student	Project Topic	Name of the Guide
1	101/18	Abhishek Ranjan	Supply Chain Management During and Post Covid-19 Pandemic	Dr. Umesh Khandey
2	102/18	Abhishek Sharma	Finite Element Analysis of Different Process Parameters on Extruded Products in Multi-Hole Extrusion Process.	Dr. Ratnakar Das
3	103/18	Kadambini	Ultrasonic Casting	Mr. S. K.Soren
4	104/18	Arpit Singh	Supply Chain Management During and Post Covid-19 Pandemic.	Dr. Umesh Khandey
5	105/18	Parth Chakraborty	Parametric Optimization of Hot Forging Process: A Six Sigma Based Approach	Mr. S. K. Soren
6	106/18	Harshit Tiwari	Application of Taguchi Method for Optimising Turning Process Under Various Machining Parameters	Dr. Umesh Khandey
7	107/18	Gairik Kumar Bose	Finite Element Analysis on The Effect of Different Process Parameters in Multi-Hole Extrusion Process	Dr. Ratnakar Das
8	108/18	Akanksha Shrivastava	Ultrasonic Casting	Mr. S. K. Soren
9	109/18	Nikhil Anurag	Numerical Modelling and Simulation of Friction Stir Welding on Weldments of Al-Alloys	Dr.Jagesvar Verma
10	110/18	Kunal Mangalam	New Trends of Forecasting Technique	Dr. Umesh Khandey
11	112/18	Aman Ranakoti	Parametric Optimization of Hot Forging Process: A Six Sigma Based Approach	Mr. S .K. Soren
12	113/18	Lokesh Kumar Saini	Government Initiatives in Supply Chain Management	Dr. Rajkumar Ohdar
13	114/18	Varnit Dabral	Parametric Optimization of Hot Forging Process: A Six Sigma Based Approach	Mr. Subrato Kumar Soren
14	115/18	Kumar Satyam	Thermal Welding Simulation and Metallurgical Characteristics of Weldments	Dr. Jagesvar Verma
15	116/18	Anupam Kumar Jha	Role of Big Data and Iot in Supply Chain Management	Dr. R. K. Ohdar
16	117/18	Abhiraj	Fire Safety Management in Public Healthcare Buildings	Dr. Umesh Khandey
17	118/18	Richa Priti	Application of Taguchi Method for Optimising Turning Process Under Various Machining Parameters	Dr. Umesh Khandey

Sl. No.	Roll No.	Name of the Student	Project Topic	Name of the Guide
18	119/18	Prashant Kumar	Shortage Wastage in Perishable Inventory System	Dr. Umesh Khandey
19	120/18	Rajiv Sarkar	New Trends of Forecasting Techniques.	Dr. Umesh Khandey
20	121/18	Shubham Kumar	Die Design Process of Connecting Rod	Dr. N.K. Singh
21	124/18	Md Tanweer Alam	Numerical Modelling and Simulation of Friction Stir Weldments of Al-Alloy	Dr.Jagesvar Verma
22	127/18	Utkarsh Sood	The Importance of Agile Methodologies in Supply Chain	Dr. Rajkumar Ohdar
23	128/18	Saurabh Yadav	Numerical Modeling & Simulation of Friction Stir Weldment Al-Alloy	Dr.Jagesvar Verma
24	129/18	Rajnish Mehta	Energy Conservation in Manufacturing Industries	Mrs. Madhu Kumari
25	130/18	Avinash Kumar	Die Design of Connecting Rod	Dr. N.K Singh
26	131/18	Rahul Kukar	Parametric Optimization of Hot Forging Process: A Six Sigma Based Approach	Mr. S. K. Soren
27	132/18	Satveer Kumar	Fire Safety Management in Public Healthcare Buildings	Dr. Umesh Khandey
28	134/18	Chakote Vishal Laxman	Comparison Of Cold Forging Behaviour and Hot Forging Behaviour of Aa6082 Alloy	Dr. Kulkarni Rahul Ramesh
29	135/18	Maddali Ajay Kumar	Ultrasonic Welding	Mrs. Madhu Kumari
30	136/18	Yash Prakash	Government Initiatives in Supply Chain Management	Dr. Ohdar
31	137/18	Shubham Kumar	New Trends of Forecasting Techniques	Dr. Umesh Khandey
32	138/18	Sachin Kumar	Bending Of Thin Sheet Metal: A Review	Dr. Ratnakar Das
33	140/18	Sujeet Kumar	Shortage And Wastage in Perishable Inventory System	Dr. Umesh Khandey
34	144/18	Adarsh Sharma	Bending Of Thin Sheet Metal: A Review	Dr. Ratnakar Das
35	146/18	Harsh Kumar Gupta	Supply Chain Management in Automotive Industry	Dr. Umesh Khandey
36	147/18	Aakash Kumar	Role of Big Data and Iot in Supply Chain Management	Dr. Rajkumar Ohdar
37	148/18	Bailapudi Karthik	Wc Cladding on Mild Steel to Enhance Wear Properties	Mr. Anand Mohan Murmu
38	149/18	Aditya Anand	The Importance of Agile Methodologies in Supply Chain Management	Dr. Rajkumar Ohdar
39	151/18	Shraddha Ranveer	Numerical Modelling and Simulation of Friction Stir Weldment of Aluminium Luminium	Dr. Jagesvar Verma
40	152/18	Bharath Alikana	Bimetallic Casting of Al and Zn	Dr. Amitesh Kumar
41	155/18	Koduri Vamsi	Wc Cladding on Mild Steel to Enhance Wear Properties	Dr. Anand Mohan Murmu

B. Tech. 2018-2022 batch
(Project and Seminar Topic branch wise)

Metallurgy and Materials Engineering

Sl. No.	Roll No.	Name of the Student	Project Topic	Name of the Guide
1	201/18	Gaurav Mishra	Synthesis of Aluminium Boron Composite	Dr. T. Maity
2	202/18	Rohit Kumar	Corrosion of Mild Steel in Various Environment	Dr. Anil Kumar
3	203/18	Kumar Satyam	Welding Defect Analysis by Ultrasonic Testing	Dr. Bansidhar Mallick
4	204/18	Sneh Ranjan	Mitigation of Corrosion Problems in Api X80 Steel Pipelines	Dr. Ghanshyam Das
5	206/18	Sushant Kumar	Study of Mild Steel in Various Corrosive Environment	Dr. Anil Kumar
6	207/18	Shriti Sinha	Development of Oxide Dispersed Aluminium Based Metal Matrix Composite by Forging Process	Dr. D. Roy
7	208/18	Kasireddy Raviteja	Process Modelling and Simulation of Casting Process	Dr. Banshidhara Mallik
8	209/18	Mohammad Talha	Effect of Heat Treatment on Corrosion Behaviour of 304 Stainless Steel	Dr. Ratnesh Kumar Gupta
9	210/18	Naga Siva Sai Mouli Tumu	Investment Casting of Aluminium Alloys	Dr.Banshidhara Mallik
10	212/18	Karan Singh	Welding Defect Analysis by Ultrasonic Testing	Dr. Bansidhar Malik
11	213/18	K Sai Teja Reddy	Effect of Heat Treatment on Corrosion Behavior of Duplex F-55 Steel	Dr. Ratnesh Kumar Gupata
12	214/18	Prabhav Tiwari	Mitigation of Corrosion Problems in Api X80 Steel Pipeline	Dr. Ghanshyam Das
13	216/18	Rishu Gupta	Corrosion Study of Titanium Alloys as Biomaterials for Implants	Dr. Ghanshyam Das
14	217/18	Srijani Ghosh	Development of Oxide Dispersed Aluminum Metal Matrix Composite by Forging Process	Dr. D. Roy
15	218/18	Nitish Kumar	Study of Mechanical Properties of Aluminum Alloys Produced by Graphite Mould Casting	Dr. Banshidhara Mallik

Sl. No.	Roll No.	Name of the Student	Project Topic	Name of the Guide
16	221/18	Tushar Srivastava	Effect of Forging Temperature and Strain Rate on Mechanical Properties of Forged Medium Carbon Steel	Dr. Manoj Kumar
17	222/18	Koochana Nishanth	A Comparative Study of Three Different Types of Forging Process (Mainly Hot, Cold and Warm Forging)	Dr. B. Malik
18	223/18	Rajiv Ranjan	Study of Mechanical Properties of Aluminium Alloys Produced by Graphite Mould Casting	Dr. B. Mallik
19	224/18	Abhay Jha	Processing of Aluminium and Boron Based Composite	Dr Tapabrata Maity
20	225/18	Marpina Manoj Kumar	Comparative Study of Three Different Types of Forging Process	Dr. Banshidhara Mallik
21	226/18	Ashutosh Kumar	Heat Treatment and Corrosion Study of En19 Carbon Steel	Dr Ghanshyam Das
22	227/18	Sonu Kumar Thakur	Heat Treatment of Martensitic Stainless Steel	Dr. Bansidhara Mallik
23	228/18	Chilantharajula Sunil Kumar	Latest Advances in Ultrasonic Testing for Defect Analysis	Mrs. Madhu Kumari
24	231/18	Sharvan Kumar	Effect of Forging Temperature and Strain Rate on Mechanical Properties of Forged Medium Carbon Steel	Dr. Manoj Kumar
25	232/18	Krishna Kumar Yadav	Structure Property Correlation of Heat Treated Grade 420 Stainless Steel	Mr. Koushik Sikdar
26	234/18	Md Rounak Arfoz Ansari	"Effect of Heat Treatment on Corrosion Behaviour of Duplex F55 Steel".	Dr. Ratnesh Kumar Gupta
27	235/18	Mohit Babu	Effects of Inhibitors on Carbon Dioxide Corrosion Behaviour of Carbon Steel Alloys Used in Oil and Gas Production Systems	Dr. Ghanshyam Das
28	236/18	Vimal Kumar	Design of Ultrahigh Strength Stainless Steel Using Physical Metallurgy Guided Ml and Ai Model.	Dr.Ghanshyam Das
29	238/18	Abhishek Kumar Singh	Effects of Inhibitors on Hydrogen Sulphide Corrosion Behaviour of Carbon Steel Alloys Used in Oil and Gas Production Systems	Dr.Ghanshyam Das
30	239/18	Talib Mansuri	Effect of Heat Treatment on Corrosion Behaviour of Duplex 2205 Steel	Dr. Ratnesh Kumar Gupta

Sl. No.	Roll No.	Name of the Student	Project Topic	Name of the Guide
31	240/18	Amitesh Kumar Singh	Heat Treatment of Martensitic Stainless Steel	Dr. B. Mallik
32	241/18	Tejas Sudhir Chaudhari	Metallurgical Characteristics of Hot Forging of High Entropy Alloy	Dr. Jagesvar Verma
33	243/18	Abhishek Ranjan	Effect of Strain Rate and Forging Temperature on Forging of Mild Steel	Dr. Manoj Kumar
34	244/18	Ritesh Kumar Sah	Structure Property Correlation of Heat Treated Grade 420 Stainless Steel	Mr. Koushik Sikdar
35	246/18	Vasupalli Manoj Satya Prasad	Latest Techniques of Ultrasonic Testing for Defect Analysis	Mrs. Madhu Kumari
36	247/18	Kalyanmoy Mandal	The Effects of Heat Treatment on The Mechanical and Corrosion Properties of Aisi 304 Stainless Steel	Dr. Ghanshyam Das
37	248/18	Ritik Kanoujia	Corrosion Study of Titanium as A Biomaterial for Implants	Dr. Ghanshyam Das
38	250/18	Kumar Saurabh	Effect of Heat Treatment on Corrosion and Mechanical Properties of Aisi 304 Stainless Steel	Dr. Ghanshyam Das
39	251/18	Rohan Joydhar	Design of Ultrahigh Strength Stainless Steel Using Physical Metallurgy Guided Ml & Ai Model.	Dr. Ghanshyam Das
40	253/18	Jammana Chandra Sekhara Rao	Investment Casting of Aluminium Alloys	Dr. Banshidhara Mallik
41	256/18	Shivam Kumar Sharma	Heat Treatment and Corrosion Study of En19 Carbon Steel	Dr. Ghanshyam Das
42	257/18	Saurabh Kishor Kumar	Effect of Inhibitors on Hydrogen Sulphide Corrosion Behaviour of Carbon Steel Alloys Used in Oil and Gas Production System	Dr. Ghanshyam Das
43	258/18	Dharavath Charan	Effect of Heat Treatment on Corrosion Behavior of 304 Steel	Dr. Ratnesh Kumar Gupta

B. Tech. 2018-2022 batch
(Project and Seminar Topic branch wise)

Manufacturing Engineering

Sl. No.	Roll No.	Name of the Student	Seminar Topic	Name of the Guide
1	101/18	Abhishek Ranjan	Design And Stress Analysis of Spur Gear	Dr. Umesh Khandey
2	102/18	Abhishek Sharma	Electron Beam Machining	Dr. Jagesvar Verma
3	103/18	Kadambini	Friction Stir Processing	Mr. S. K. Soren
4	104/18	Arpit Singh	Supply Chain Management During and Post Covid-19 Pandemic	Dr. Umesh Khandey
5	105/18	Parth Chakraborty	Centrifugal Casting	Mr. S. K. Soren
6	106/18	Harshit Tiwari	Case Study on Design Optimization of Cutting Parameters for Turning Operations Based on The Taguchi Method	Dr. Umesh Khandey
7	107/18	Gairik Kumar Bose	Electrochemical Machining	Dr. Jagesvar Verma
8	108/18	Akanksha Shrivastava	Friction Stir Welding	Mr. S. K. Soren
9	109/18	Nikhil Anurag	Solar Collector	Dr.Jagesvar Verm
10	110/18	Kunal Mangalam	Fuel Injection in Two and Four Wheelers	Dr. Umesh Khandey
11	112/18	Aman Ranakoti	Supply Chain Performance: An Overview	Mr. S. K. Soren
12	113/18	Lokesh Kumar Saini	Workflow In Manufacturing	Dr. Raj Kumar Ohdar
13	114/18	Varnit Dabral	Computer Application of Six Sigma in Foundry Industry	Mr. Subrato Kumar Soren
14	115/18	Kumar Satyam	Educational Toys: Visualization of Reality	Dr. Ratnakar Das
15	116/18	Anupam Kumar Jha	Big Data and Supply Chain Management	Dr. R. K. Ohdar
16	117/18	Abhiraj	Fire Safety Management in Publice Healthcare Buildings	Dr. Umesh Khandey
17	118/18	Richa Priti	A Study on Inventory Management of Tata Steel and Comparative Analysis With Different Indian Steel Industries	Dr. Umesh Khandey
18	119/18	Prashant Kumar	Shortage Wastage in Perishable Inventory System	Dr. Umesh Khandey
19	120/18	Rajiv Sarkar	Anti-Lock Braking System	Dr. Umesh Khandey
20	121/18	Shubham Kumar	Die Design Process	Dr. N.K. Singh

Sl. No.	Roll No.	Name of the Student	Seminar Topic	Name of the Guide
21	124/18	Md Tanweer Alam	Machine Learning	Dr.Jagesvar Verma
22	127/18	Utkarsh Sood	Supply Chain Management-Ethical and Social Practices	Dr. Rajkumar Ohdar
23	128/18	Saurabh Yadav	Six Stroke Engine	Dr. Jagesvar Verma
24	129/18	Rajnish Mehta	Renewable Energy	Mrs. Madhu Kumari
25	130/18	Avinash Kumar	Forging Defects and its Remedies	Dr. N. K Singh
26	131/18	Rahul Kukar	Eddy Current Testing	Mr. S. K. Soren
27	132/18	Satveer Kumar	Fire Safety Management	Dr. Umesh Khandey
28	134/18	Chakote Vishal Laxman	Forging Behaviour of Aa6061-Al2o3 Composite Material	Dr. Kulkarni Rahul Ramesh
29	135/18	Maddali Ajay Kumar	Optical Camouflage	Mrs. Madhu Kumari
30	136/18	Yash Prakash	Supply Chain Management in Industrial Manufacturing	Dr. R. K. Ohdar
31	137/18	Shubham Kumar	Defects of Casting Technology	Dr. Umesh Khandey
32	138/18	Sachin Kumar	Design And Analysis of Riser for Sand Casting	Dr. Ratnakar Das
33	140/18	Sujeet Kumar	Heat Treatment of Steel	Dr. Umesh Khandey
34	144/18	Adarsh Sharma	Design And Analysis of Riser for Sand Casting	Dr. Ratnakar Das
35	146/18	Harsh Kumar Gupta	Supply Chain Management in Automotive Industry	Dr. Umesh Khandey
36	147/18	Aakash Kumar	Big Data Analytics in Supply Chain Management	Dr. Rajkumar Ohdar
37	148/18	Bailapudi Karthik	Brake Control	Mr. Anand Mohan Murmu
38	149/18	Aditya Anand	Supply Chain Management - Ethical and Social Practices	Dr. Rajkumar Ohdar
39	151/18	Shraddha Ranveer	Additive Manufacturing	Dr. Jagesvar Verma
40	152/18	Bharath Alikana	Application of Magnesium as Bio-Material	Dr. Amitesh Kumar
41	155/18	Koduri Vamsi	Flywheel	Dr. Anand Mohan Murmu

B. Tech. 2018-2022 batch
(Project and Seminar Topic branch wise)

Metallurgy and Materials Engineering)

Sl. No.	Roll No.	Name of the Student	Seminar Topic	Name of the Guide
1	201/18	Gaurav Mishra	Composite Materials	Dr. T. Maity
2	202/18	Rohit Kumar	Different Types of Rolling Mills in Industry	Dr. Anil Kumar
3	203/18	Kumar Satyam	Kaizen System and Its Application	Dr. Bansidhar Mallick
4	204/18	Sneh Ranjan	Stainless Steel and Its Properties	Dr. Ghanshyam Das
5	206/18	Sushant Kumar	Study of Production of Sg Iron	Dr. Anil Kumar
6	207/18	Shriti Sinha	Titanium Alloys for Biomedical Applications	Dr. D. Roy
7	208/18	Kasireddy Raviteja	Titanium And Its Alloys	Dr. Banshidhara Mallik
8	209/18	Mohammad Talha	Recent Advancement in Dye Penetrant Inspection	Dr. Ratnesh Kumar Gupta
9	210/18	Naga Siva Sai Mouli Tumu	Structure Analysis Through X- Ray Diffraction	Dr. Banshidhara Mallik
10	212/18	Karan Singh	Zero Defect and It's Application	Dr. Bansidhar Malik
11	213/18	K Sai Teja Reddy	Ultrasonic Testing	Dr. Ratnesh Kumar Gupta
12	214/18	Prabhav Tiwari	Investment Casting	Dr Ghanshyam Das
13	216/18	Rishu Gupta	Study of Casting Defects	Dr. Ghanshyam Das
14	217/18	Srijani Ghosh	Studies on Nanocrystalline Copper Composite for Electrical Application	Dr. D. Roy
15	218/18	Nitish Kumar	Recent Advancement in Dye Penetrant Testing	Dr. Banshidhara Mallik
16	221/18	Tushar Srivastava	Extraction of Aluminium	Mrs. Madhu Kumari
17	222/18	Koochana Nishanth	Forging Defects and Its Remedial Measures	Dr. B.Malik
18	223/18	Rajiv Ranjan	Review on Analysis of Foundry Defects for Quality Improvement of Sand Casting	Dr. B. Mallik
19	224/18	Abhay Jha	Extraction of Aluminium	Dr. Tapabrata Maity
20	225/18	Marpina Manoj Kumar	Recent Advances in Processing of Maraging Steel	Dr. Banshidhara Mallik
21	226/18	Ashutosh Kumar	Study of Corrosion Protective Methods in Pipeline	Dr Ghanshyam Das
22	227/18	Sonu Kumar Thakur	Welding Defects Inspection Using Ultrasonic Technique	Dr. Bansidhara Mallik

Sl. No.	Roll No.	Name of the Student	Seminar Topic	Name of the Guide
23	228/18	Chilantharajula Sunil Kumar	Study of Ductile Iron	Mrs. Madhu Kumari
24	231/18	Sharvan Kumar	Study of Effect of Heat Treatment in Cast Steel	Mrs. Madhu Kumari
25	232/18	Krishna Kumar Yadav	Non-Destructive Testing, Its Types and Their Applications	Mr. Koushik Sikdar
26	234/18	Md Rounak Arfoz Ansari	Shape Memory Alloy	Dr. Ratnesh Kumar Gupta
27	235/18	Mohit Babu	A Study of Liquidity Management of Indian Steel Industry	Dr. Ghanshyam Das
28	236/18	Vimal Kumar	Effective Project Management in Steel Industry	Dr. Ghanshyam Das
29	238/18	Abhishek Kumar Singh	Corrosion Study in Nuclear Power Plant	Dr. Ghanshyam Das
30	239/18	Talib Mansuri	Heat Treatment of Cast Iron	Dr. Ratnesh Kumar Gupta
31	240/18	Amitesh Kumar Singh	Reduction Kinetics of Iron Ore Pellets	Dr. B. Mallik
32	241/18	Tejas Sudhir Chaudhari	Advanced Manufacturing Processes and General Defects	Dr. Jagesvar Verma
33	243/18	Abhishek Ranjan	E-Waste Management	Dr. Madhu Kumari
34	244/18	Ritesh Kumar Sah	Casting Defects and Their Remedies	Mr. Koushik Sikdar
35	246/18	Vasupalli Manoj Satya Prasad	Nano Tecnology	Mrs. Madhu Kumari
36	247/18	Kalyanmoy Mandal	Corrosion Studies on Magnesium Alloy Used In Automobile Industry	Dr. Ghanshyam Das
37	248/18	Ritik Kanoujia	Corrosion Fundamentals and Its Minimization	Dr. Ghanshyam Das
38	250/18	Kumar Saurabh	To Study the Corrosion of Dual Phase Steel	Dr. Ghanshyam Das
39	251/18	Rohan Joydhar	Industry 4.0 In Steel Industry	Dr. Ghanshyam Das
40	253/18	Jammana Chandra Sekhara Rao	Impact on Values of Hardness of Aluminium by Adding Copper and Magnesium	Dr. Banshidhara Mallik
41	256/18	Shivam Kumar Sharma	Study of Corrosion Inhibitors Used in Pipeline	Dr. Ghanshyam Das
42	257/18	Saurabh Kishor Kumar	Fatigue Corrosion Study in Automobile	Dr. Ghanshyam Das
43	258/18	Dharavath Charan	Electromagnetic Testing	Dr. Ratnesh Kumar Gupta

49th ADC (2020-2022 Batch)
Foundry Technology Project Topic

Sl. No.	Roll No.	Name of the Student	Project Topic	Name of the Guide
1	49101	Abdul Hafiz	Microstructural and Mechanical Characterization of Al-Cu-Alloy	Mr. Ujjwal Kumar Kashyap
2	49102	Akash Kumar	Effect of inoculation on nodularity and nodule counts of spheroldal graphite cast iron	Mr. Pushparaj Singh
3	49103	Anadi Das	Microstructursl and Mechanical Characterization of Al-Cu Alloy	Mr. Ujjwal Kumar Kashyap
4	49104	Anand Sikarwar	"Synthesis and Characterization of Al-Mg alloys"	Dr. Amitesh Kumar
5	49105	Animesh Dolui	"Study of Thermophysical property of green sand and the effect of mold steel interface reaction on casting surfaces"	Dr. Nandita Gupta
6	49106	Ankit Kumar	Effect of inoculation on nodularity and nodule counts of spheroldal graphite cast iron	Mr. Pushparaj Singh
7	49107	Ankit Kumar	"Analysis of casting of A pulley through simulation with variations in position of Pattern"	Mr. Ujjwal Kumar Kashyap
8	49108	Ashish Kumar Kushwaha	Microstructural and Mechanical Characterization	Mr. Ujjwal Kumar Kashyap
9	49109	Astik Maji	Microstructural and Mechanical Characteristie of Al 6063-Sie Composite processed by stir casting Technique	Mr. Pushparaj Singh
10	49110	Bandhan Kumar	Effect of Manganese on structure Properties on Grey Cast Iron	Dr. Kamlesh Kumar Singh
11	49111	Chandan Kumar Singh	Effect of Manganese on structure Properties on Grey Cast Iron	Dr. Kamlesh Kumar Singh
12	49112	Debadatta Das	Comparative Study of Al metal matrix composite reinforced by SiC and Cu-coated SiC produced by Stir Casting Process	Dr. Himanshu Khandelwal
13	49113	Debasish Bauri	Microstructural and Mechanical Characteristie of Al 6063-Sie Composite processed by stir casting Technique	Mr. Pushparaj Singh
14	49114	Dibyendu Mana	Comparative Study of Al metal matrix composite reinforced by SiC and Cu-coated SiC produced by Stir Casting Process	Dr. Himanshu Khandelwal
15	49115	Dilip Singh	"Synthesis and Characterization of Al-Mg alloys"	Dr. Amitesh Kumar

Sl. No.	Roll No.	Name of the Student	Project Topic	Name of the Guide
16	49116	Ganesh Mondal	Magnesium treatment in spheroidal Graphite cast iron effect on microstructure and mechanical properties	Mr. Pushparaj Singh
17	49119	Hasan Raza	"Synthesis and Characterization of Al-Mg alloys"	Dr. Amitesh Kumar
18	49120	Karunamoy Guin	Excel Based Automated burden computation tool for ferrous Foundries	Dr. Himanshu Khandelwal
19	49121	Kundan Kumar	Solidification Simulation Study on Multi Junction Casting Design	Dr. Himanshu Khandelwal
20	49122	Mahadev Pramanik	Solidification Simulation Study on Multi Junction Casting Design	Dr. Himanshu Khandelwal
21	49123	Manjeet Kumar Singh	Effect of inoculation on nodularity and nodule counts of spheroldal graphite cast iron	Mr. Pushparaj Singh
22	49124	Manju Kumari	Microstructural and Mechanical Characterization of Al-Cu Alloy	Mr. Ujjwal Kumar Kashyap
23	49125	Md.Zaid Hamid	Effect on Microsture and mechanical properties of grey cast iron by alloying molybdenum	Dr. Kamlesh Kumar Singh
24	49126	Mohit Kumar	"Synthesis and Characterization of Al-Mg alloys"	Dr. Amitesh Kumar
25	49127	Niladri Biswas	Excel Based Automated burden computation tool for ferrous Foundries	Dr. Himanshu Khandelwal
26	49128	Padmawati Sahu	"To Check the Surface Finish of Cast Al-Si-Mg Alloy with change in percentage of Magnesium"	Dr. Nandita Gupta
27	49129	Parshuram Kumar	"Analysis of casting of A pulley through simulation with variations in position of Pattern"	Mr. Ujjwal Kumar Kashyap
28	49130	Pawan Kumar Mahto	Effect on Microsture and mechanical properties of grey cast iron by alloying molybdenum	Dr. Kamlesh Kumar Singh
29	49131	Prasun Mahato	Casting of Pump Impeller of Grey cast Iron	Mr. Ujjwal Kumar Kashyap
30	49132	Raja Tudu	Effect of inoculation on nodularity and nodule counts of spheroldal graphite cast iron	Mr. Pushparaj Singh
31	49133	Rajiv Kumar	Casting of Pump Inpeller of Grey cast Iron	Mr. Ujjwal Kumar Kashyap
32	49134	Rohit Kumar Mandal	Effect on Microsture and mechanical properties of grey cast iron by alloying molybdenum	Dr. Kamlesh Kumar Singh
33	49136	Samir Saren	"To Check the Surface Finish of Cast Al-Si-Mg Alloy with change in percentage of Magnesium"	Dr. Nandita Gupta
34	49137	Saurav Kumar	Casting of Pump Impeller Grey cast Iron	Mr. Ujjwal Kumar Kashyap
35	49138	Sayan Bakshi	"Analysis of casting of A pulley through simulation with variations in position of Pattern"	Mr. Ujjwal Kumar Kashyap

Sl. No.	Roll No.	Name of the Student	Project Topic	Name of the Guide
36	49139	Shishir Kumar Mahato	"Synthesis and Characterization of Al-Mg alloys"	Dr. Amitesh Kumar
37	49140	Shivam Oraon	"Synthesis and Characterization of Al-Mg alloys"	Dr. Amitesh Kumar
38	49141	Shubham Kumar	Effect on Microsture and mechanical properties of grey cast iron by alloying molybdenum	Dr. Kamlesh Kumar Singh
39	49143	Soumen Mondal	Magnesium treatment in spheroidal Graphite cast iron effect on microstructure and mechanical properties	Mr. Pushparaj Singh
40	49144	Soumen Roy	"Analysis of casting of A pulley through simulation with variations in position of Pattern"	Mr. Ujjwal Kumar Kashyap
41	49145	Soumyo Jyoti Barik	Effect of Manganese on structure Properties on Grey Cast Iron	Dr. Kamlesh Kumar Singh
42	49146	Subhajit Dutta	Microstructural and Mechanical Characteristie of Al 6063-Sie Composite processed by stir casting Technique	Mr. Pushparaj Singh
43	49148	Subhajit Paul	Effect of Manganese on structure Properties on Grey Cast Iron	Dr. Kamlesh Kumar Singh
44	49149	Subhankar Patra	"Effects of silica Sand Characteristics On The Final Strength Of Modified Single Component Sodium Silicate Bonded Sands Under Various Curing Condition"	Dr. Nandita Gupta
45	49150	Subham Mondal	Microstructural and Mechanical Characteristie of Al 6063-Sie Composite processed by stir casting Technique	Mr. Pushparaj Singh
46	49151	Suman Jana	Solidification Simulation Study on Multi Junction Casting Design	Dr. Himanshu Khandelwal
47	49152	Sumit Kumar	"Study of Thermophysical property of green sand and the effect of mold steel interface reaction on casting surfaces"	Dr. Nandita Gupta
48	49153	Surya Malick	Magnesium treatment in spheroidal Graphite cast iron effect on microstructure and mechanical properties	Mr. Pushparaj Singh
49	49154	Uttam Sahoo	"Effects of silica Sand Characteristics On The Final Strength Of Modified Single Component Sodium Silicate Bonded Sands Under Various Curing Condition"	Dr. Nandita Gupta
50	49155	Vishal Prajapati	"Synthesis and Characterization of Al-Mg alloys"	Dr. Amitesh Kumar

49th ADC (2020-2022 Batch)

Forge Technology Project Topic

Sl. No.	Roll No.	Name of the Student	Project Topic	Name of the Guide
1	49201	Abhirup Chatterjee	Development of Aluminum-copper composites through powder Forging	Dr. Vineet Chak
2	49202	Aditya Kumar	Rejection analysis of Forging component	Dr. Niranjan Kumar Singh
3	49203	Akash Midya	Devlopment of sic reinforced AI 7050 matrix composite through stir Casting	Dr. Vineet Chak
4	49205	Aman Kumar	Devlopment of sic reinforced AI 7050 matrix composite through stir Casting	Dr. Vineet Chak
5	49206	Aman Kumar Sharma	Analysis of Forging defects and yield improvement	Dr. Niranjan Kumar Singh
6	49207	Ankit Kumar	Influence of forging ratio and austenizing temperature on the microstructure and mechanical property of 316 stainless steel	Dr. Ajit Kumar Parmanick
7	49208	Anmol Ekka	Influence of forging ratio and austenizing temperature on the microstructure and mechanical property of 316 stainless steel	Dr. Ajit Kumar Parmanick
8	49209	Anshuman Roy	Heat Treatments on medium carbon steel (EN 8)analysing the microstructure structure and mechanical properties	Dr. Deepak Kumar
9	49210	Arup Kumar Das	Fabrication of Al-SiC composite Through powder Forging	Dr. Deepak Kumar
10	49211	Debadrit Mukherjee	Heat Treatments on medium carbon steel (EN 8)analysing the microstructure structure and mechanical properties	Dr. Deepak Kumar
11	49212	Gaurav Singh	Development of Aluminum-copper composites through powder Forging	Dr. Vineet Chak
12	49213	Golam Hosen Mallik	Microstructure Evolution During Heat Treatment with Intermediate Hammer Forging in AA6082	Dr. Rahul Ramesh Kulkarni
13	49214	Gourav Kumar	Analysis of Forging defects and yield improvement	Dr. Niranjan Kumar Singh
14	49215	Gulam Mustafa	To Study the Effect on Mechanical properties of M.S Steel by Forging Deformation	Dr. Rajkumar Ohdar
15	49216	Kishun Ravi Das	Microstructure Evolution During Heat Treatment with Intermediate Hammer Forging in AA6082	Dr. Rahul Ramesh Kulkarni
16	49217	Kuldeep Kumar	"Manufacturing process plan For ring rolling process of titanium alloy (Ti6AI4V)"In Chw Forge	Dr. Rahul Ramesh Kulkarni
17	49218	Lambodar Mahato	To Study the Effect on Mechanical properties of M.S Steel by Forging Deformation	Dr. Rajkumar Ohdar

Sl. No.	Roll No.	Name of the Student	Project Topic	Name of the Guide
18	49219	Manoj Barman	Fabrication of Al-SiC composite Through powder Forging	Dr. Deepak Kumar
19	49220	Md. Shahbaj Ansari	"Forging Die of Connecting Rod"	Dr. Manoj Kumar
20	49221	Mousumi Roy	"Project on low alloy Medium carbon steel (Press Forging)"	Dr. Rahul Ramesh Kulkarni
21	49222	Narandra Kumar Mahto	Rejection analysis of Forging component	Dr. Niranjan Kumar Singh
22	49223	Nikita Sinha	Microstructure Evolution During Heat Treatment with Intermediate Hammer Forging in AA6082	Dr. Rahul Ramesh Kulkarni
23	49224	Prince Kumar Ojha	"Forging die design of Crushing ball"	Dr. Manoj Kumar
24	49225	Rakesh Kumar Mahto	"Forging Die of Connecting Rod"	Dr. Manoj Kumar
25	49226	Raushan Kumar	Development of Aluminum-copper composites through powder Forging	Dr. Vineet Chak
26	49227	Ravi Shankar	Analysis of Forging defects and yield improvement	Dr. Niranjan Kumar Singh
27	49228	Richard Minj	To Study the Effect on Mechanical properties of M.S Steel by Forging Deformation	Dr. Rajkumar Ohdar
28	49230	Sachin Kumar Singh	To Study the Effect on Mechanical properties of M.S Steel by Forging Deformation	Dr. Rajkumar Ohdar
29	49231	Sanatan Mandal	Influence of forging ratio and austenizing temperature on the microstructure and mechanical property of 316 stainless steel	Dr. Ajit Kumar Parmanick
30	49232	Snehasish Sasmal	Influence of forging ratio and austenizing temperature on the microstructure and mechanical property of 316 stainless steel	Dr. Ajit Kumar Parmanick
31	49233	Subhojit Bose	Rejection analysis of Forging component	Dr. Niranjan Kumar Singh
32	49235	Tapasiddha Jana	Heat Treatments on medium carbon steel (EN 8)analysing the microstructure structure and mechanical properties	Dr. Deepak Kumar
33	49236	Vijay Lohra	Microstructure Evolution During Heat Treatment with Intermediate Hammer Forging in AA6082	Dr. Rahul Ramesh Kulkarni
34	49237	Vikas Kumar	"Forging die design of Crushing ball"	Dr. Manoj Kumar
35	49238	Vikash Goswami	"Forging Die of Connecting Rod"	Dr. Manoj Kumar
36	49240	Vishal Sagar	"Forging die design of Crushing ball"	Dr. Manoj Kumar
37	49241	Yadab Dutta	Fabrication of Al-SiC composite Through powder Forging	Dr. Deepak Kumar
38	49244	Ravi Ranjan	Hot Forging of stainless steel 304	Dr. Vineet Chak

49th ADC (2020-2022 Batch)

Foundry Technology Seminar Topic

Sl. No.	Roll No.	Name of the Student	Seminar Topic	Name of the Guide
1	49101	Abdul Hafiz	Foundry Pattern design, Selection & The Recent developments	Mr. Ujjwal Kumar Kashyap
2	49102	Akash Kumar	Diferent Stage of Casting Production & Types of Foundries	Mr. Pushparaj Singh
3	49103	Anadi Das	Foundry Sand & The Recent devlopment	Mr. Ujjwal Kumar Kashyap
4	49104	Anand Sikarwar	"Ultrasonic Casting of Al-Mg alloys"	Dr. Amitesh Kumar
5	49105	Animesh Dolui	"Folk bronze and improve thechniques"	Dr. Nandita Gupta
6	49106	Ankit Kumar	Casting Defects	Mr. Pushparaj Singh
7	49107	Ankit Kumar	"Gating System; Principles, Design and Selection"	Mr. Ujjwal Kumar Kashyap
8	49108	Ashish Kumar Kushwaha	Technological and Economical Feasibility analyasis	Mr. Ujjwal Kumar Kashyap
9	49109	Astik Maji	"Slope Casting"	Mr. Pushparaj Singh
10	49110	Bandhan Kumar	Devlopement of Melting Practice of Titanium Alloy	Dr. Kamlesh Kumar Singh
11	49111	Chandan Kumar Singh	Application of Titanium Alloy	Dr. Kamlesh Kumar Singh
12	49112	Debadatta Das	Design consideration of hig pressure moulding line	Dr. Himanshu Khandelwal
13	49113	Debasish Bauri	Types of core and core print design	Mr. Pushparaj Singh
14	49114	Dibyendu Mana	"Water Soluble Core"	Dr. Himanshu Khandelwal
15	49115	Dilip Singh	Heat Treatment of Al-Mg Alloy	Dr. Amitesh Kumar
16	49116	Ganesh Mondal	Melting practice of SG IRON(500/7)	Mr. Pushparaj Singh
17	49119	Hasan Raza	Production Methods of Spheroidal Graphite Iron & Austempered Ductile Iron	Dr. Amitesh Kumar
18	49120	Karunamoy Guin	Refractory Lining of induction Furnace	Dr. Himanshu Khandelwal
19	49121	Kundan Kumar	Different inspection Techniques used in Foundry industries	Dr. Himanshu Khandelwal
20	49122	Mahadev Pramanik	"Classification of Casting Defects Cause effect analysis of Casting defects"	Dr. Himanshu Khandelwal
21	49123	Manjeet Kumar Singh	"Effect of Copper in Grey Cast Iron"	Mr. Pushparaj Singh
22	49124	Manju Kumari		Mr. Ujjwal Kumar Kashyap
23	49125	Md.Zaid Hamid	"Application of Aluminium Alloys"	Dr. Kamlesh Kumar Singh
24	49126	Mohit Kumar	"Scenario of Electric Vehicles"	Dr. Amitesh Kumar

Sl. No.	Roll No.	Name of the Student	Seminar Topic	Name of the Guide
25	49127	Niladri Biswas	Cause Effect Analysis for Casting Dimensional Changes	Dr. Himanshu Khandelwal
26	49128	Padmawati Sahu	The roll of Non-Destructive Inspection as a part of quality assurance in Casting Industry	Dr. Nandita Gupta
27	49129	Parshuram Kumar	"Centrifugal Casting"	Mr. Ujjwal Kumar Kashyap
28	49130	Pawan Kumar Mahto	"Effect of Alloying element on Microstructure of Aluminium Alloy"	Dr. Kamlesh Kumar Singh
29	49131	Prasun Mahato	"Squeeze Casting Process"	Mr. Ujjwal Kumar Kashyap
30	49132	Raja Tudu	"Die Casting"	Mr. Pushparaj Singh
31	49133	Rajiv Kumar	Inoculation & The Recent Developments	Mr. Ujjwal Kumar Kashyap
32	49134	Rohit Kumar Mandal	Moulding and casting of Titanium Alloy	Dr. Kamlesh Kumar Singh
33	49136	Samir Saren	Statistical Process Control Tool for cost saving in Chilled Cast Iron Foundry	Dr. Nandita Gupta
34	49137	Saurav Kumar	Vacuum Moulding	Mr. Ujjwal Kumar Kashyap
35	49138	Sayan Bakshi	"Magnetohydrodynamics"	Mr. Ujjwal Kumar Kashyap
36	49139	Shishir Kumar Mahato	"Synthesis and Characterization of Al-Mg alloy"	Dr. Amitesh Kumar
37	49140	Shivam Oraon	"Production of Aluminium Alloy Wheel"	Dr. Amitesh Kumar
38	49141	Shubham Kumar	Titanium and its alloys	Dr. Kamlesh Kumar Singh
39	49143	Soumen Mondal	"Casting defect analysis by using NDT Techniques"	Mr. Pushparaj Singh
40	49144	Soumen Roy	"Spray Casting"	Mr. Ujjwal Kumar Kashyap
41	49145	Soumyo Jyoti Barik	Moulding and casting of aluminium alloy	Dr. Kamlesh Kumar Singh
42	49146	Subhajit Dutta	Melting of Aluminium Alloys in Induction Furnace	Mr. Pushparaj Singh
43	49148	Subhajit Paul	Development in melting practice of Aluminium alloys	Dr. Kamlesh Kumar Singh
44	49149	Subhankar Patra	"Bi Metalic Casting and Review"	Dr. Nandita Gupta
45	49150	Subham Mondal	Devlopments of cupola melting	Mr. Pushparaj Singh
46	49151	Suman Jana	"Automation in Foundries"	Dr. Himanshu Khandelwal
47	49152	Sumit Kumar	"Short Cycle Annealing of Ferritic Malleable Iron"	Dr. Nandita Gupta
48	49153	Surya Malick	Ladle Metallurgy	Mr. Pushparaj Singh
49	49154	Uttam Sahoo	Review of Invesmennt Casting	Dr. Nandita Gupta
50	49155	Vishal Prajapati	"Automation in Foundries"	Dr. Amitesh Kumar

49th ADC (2020-2022 Batch)

Forge Technology Seminar Topic

Sl. No.	Roll No.	Name of the Student	Seminar Topic	Name of the Guide
1	49201	Abhirup Chatterjee	Powder Gorging	Dr. Vineet Chak
2	49202	Aditya Kumar	Precision Forging and Forging Defects	Dr. Niranjan Kumar Singh
3	49203	Akash Midya	Forging defects & its remedies	Dr. Vineet Chak
4	49205	Aman Kumar	New Trends and devlopments in Forging Technology	Dr. Vineet Chak
5	49206	Aman Kumar Sharma	"Causes of Forging Defects and Their Remedies"	Dr. Niranjan Kumar Singh
6	49207	Ankit Kumar	"Hollow Tube by Hydroforming"	Dr. Ajit Kumar Parmanick
7	49208	Anmol Ekka	"Multi Axial Gorging"	Dr. Ajit Kumar Parmanick
8	49209	Anshuman Roy	Heat Treatment and Defect Analysis	Dr. Deepak Kumar
9	49210	Arup Kumar Das	"Shape Memory Alloys"	Dr. Deepak Kumar
10	49211	Debadrit Mukherjee	"Forging in aerospace industry"	Dr. Deepak Kumar
11	49212	Gaurav Singh	Forging defects & its Remedils	Dr. Vineet Chak
12	49213	Golam Hosen Mallik	Steps Involved In Ring Rolling & Ring Rolled Component	Dr. Rahul Ramesh Kulkarni
13	49214	Gourav Kumar	Forging defects and role of subricant	Dr. Niranjan Kumar Singh
14	49215	Gulam Mustafa	Multidirectional Forging	Dr. Rajkumar Ohdar
15	49216	Kishun Ravi Das	Titanium Alloys Forging	Dr. Rahul Ramesh Kulkarni
16	49217	Kuldeep Kumar	"Radial Forging"	Dr. Rahul Ramesh Kulkarni
17	49218	Lambodar Mahato	Forging Defects and Their Remedies'	Dr. Rajkumar Ohdar
18	49219	Manoj Barman	"Forging Die Life"	Dr. Deepak Kumar
19	49220	Md. Shahbaj Ansari	Servo Hydraulic Press used for Forging Aerospace Material like Titanium Alloys	Dr. Manoj Kumar
20	49221	Mousumi Roy	Importance of Heat Treatment of Mg-Al-Zn Alloy during Forging	Dr. Rahul Ramesh Kulkarni

Sl. No.	Roll No.	Name of the Student	Seminar Topic	Name of the Guide
21	49222	Narandra Kumar Mahto	Forging operation & IT's defects	Dr. Niranjan Kumar Singh
22	49223	Nikita Sinha	Forging processes of austenitic stainless steel	Dr. Rahul Ramesh Kulkarni
23	49224	Prince Kumar Ojha	"Composite die in Gorging"	Dr. Manoj Kumar
24	49225	Rakesh Kumar Mahto	"Recent development of Forging lubricants for close die Forging of steels"	Dr. Manoj Kumar
25	49226	Raushan Kumar	Powder Forging	Dr. Vineet Chak
26	49227	Ravi Shankar	Billet inspection and Forging defects	Dr. Niranjan Kumar Singh
27	49228	Richard Minj	Forging Ewuipment's	Dr. Rajkumar Ohdar
28	49230	Sachin Kumar Singh	"Automation in Forging Industries"	Dr. Rajkumar Ohdar
29	49231	Sanatan Mandal	"Hybrid Forging"	Dr. Ajit Kumar Parmanick
30	49232	Snehasish Sasmal	"Forging Lubrications"	Dr. Ajit Kumar Parmanick
31	49233	Subhojit Bose	"Forging Defects & Die life improvement"	Dr. Niranjan Kumar Singh
32	49235	Tapasiddha Jana	"Vertical Counter Blow Hammer"	Dr. Deepak Kumar
33	49236	Vijay Lohra	Forging of Gear	Dr. Rahul Ramesh Kulkarni
34	49237	Vikas Kumar	"Application of Industry4.0 in Forging operation"	Dr. Manoj Kumar
35	49238	Vikash Goswami	"USE of preform in Forging"	Dr. Manoj Kumar
36	49240	Vishal Sagar	Flashless Forging for long Component	Dr. Manoj Kumar
37	49241	Yadab Dutta	"Forging Defects"	Dr. Deepak Kumar
38	49244	Ravi Ranjan	Forging Defects and Remedies	Dr. Vineet Chak


राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान
NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY
NIAMT
RANCHI
FORMERLY RIMT

CENTRALIZED COMPUTER CENTRE

About C.C.C Lab

Central Computer Centre (C.C.C.) is mainly concerned to boost the IT Infrastructure Development, Maintenance, and Growth of employees and students at NIAMT. This lab is fully air-conditioned.

It provides Campus Wide Wired Network, Wi-Fi Network, advanced Computing facility, and Campus Wide Software. The campus-wide wired local area network of the institute encompasses the entire institute and provides a primary gigabit converged network to all the departments, centres, and sections of the institute including their computer laboratories, academic, technical, and administrative staff offices and classrooms. The Wireless facility is available in the boys' and girls' student hostels and staff residences.

Centralized Computer Centre (C.C.C.) comprises the following members:

Dr. Anoop Kumar Sood Professor (ME)	Chairman
Mr. Manoj Kumar Xalxo Assistant Registrar (SP & EM)	Member
Dr. Jagesvar Verma Assistant Professor (ME)	Member
Dr. Vikash Kumar Gupta Assistant Professor (DASH)	Member
Dr. Himanshu Khandelwal Assistant Professor (Foundry & Forge Technology)	Coordinator

Facilities Developed at Centralized Computer Centre

- The wireless and LAN facility is available for students.
- Presently, CCC Lab has 120 numbers of Desktop Computer dedicated to providing facilities to students. The Internet is also connected to these computers.
- All the computers and other equipment's are connected to online UPS for power backup.
- 4 nos. of servers are installed in C.C.C lab for e-Office and other applications of institute.
- It manages the email application for the Faculty and Students of the Institute. The audio-visual system is also available.
- The additional facility developed recently is Digital Classroom with Camera and audio-visual system.
- In this facility the faculty can take their online or offline classes with recording.

The Software's available in the C.C.C lab are:

- MATLAB
- ANSYS
- DEFORM
- PROCAST
- SIMUFACT WELDING & FORMING
- MINITAB
- MICROSOFT 365 A3 (WORD, EXCEL, POWERPOINT)
- SOPHOS (ANTIVIRUS FOR ALL THE DESKTOP COMPUTERS OF THE INSTITUTE)
- CATIA
- ADOBE PHOTOSHOP

LIBRARY AND DOCUMENTATION CENTRE

EXISTING FACILITIES:

The Library and Documentation Centre of NIAMT (National Institute of Advanced Manufacturing Technology) rendering valuable services to the Institute and Users it has 51605 reading materials (Books, Journals, Standards, Transparencies, Slides, Video Cassettes and Microfilms etc.)

The Library is kept open from 09:00 AM to 09:00 PM on all Monday to Saturday . The Centre provides Reading Facilities, Borrowing Facilities, and References Services to its users. The Library has users like faculties, students and staff of the Institute and provides sitting space to about 100 people at a time.

NEW SERVICES:

1. Library is providing online access to e-resources through Elsevier.
   - (i) **Science Direct -5 Subject Collections**
     - Engineering
     - Material Science
     - Environmental Science
     - Computer Science
     - Physics and Astronomy
2. Library is providing online access to e-resources through e-shodh Sindhu of the following package.

   List of e-resources available through e-shodh Sindhu
   - Institute for Studies in Industrial Development(ISID) Database
   - JGate Plus (JCCC)
   - JSTOR
   - Nature
   - Oxford University Press

HOSTELS

The Institute has 5 boys' hostels and 1 girls' hostel to provide residential facilities to students admitted into any academic programmes offered by this Institute. These hostels have the necessary amenities, such as 24-hour water supply, geysers, water coolers, dining facility, indoor games, television with DTH connection, etc. to provide the students a comfortable and safe stay away from their homes.

The hostels are managed by the Hostel Management Committee (HMC) under the chairmanship of the Chief Hostel Warden with all Wardens and Deputy Registrar as its members. Each hostel is managed by a Warden and two or more caretakers. The different activities of the hostels, such as sports, dining, etc. are managed by a team of students for each activity.

Chief Hostel Warden : Dr. G. Rajamohan

S.L. No.	Name of the Hostel	Meant for	Seat type	Capacity	Warden
1	Kalpana Chawla Chatrawas	Girls	Double and triple	100	Dr. Aruna Thakur
2	Nirala Chatrawas	Boys	Double and triple	150	Dr. Ratnesh K. Gupta
3	V.A. Sarabhai Chatrawas	Boys	Single	30	
4	H.J. Bhabha Chatrawas	Boys	Double	300	Dr. H. Vignesh Babu
5	M.V. Chatrawas	Boys	Single	176	Dr. Kulkarni R Ramesh
6	J.C. Bose Chatrawas	Boys	Single	416	Mr. Anand M. Murmu

* Extension of these hostels in progress


पुस्तकालय एवं प्रलेखन केंद्र
LIBRARY & DOCUMENTATION CENTRE


KALPANA CHAWLA CHATRAWAS

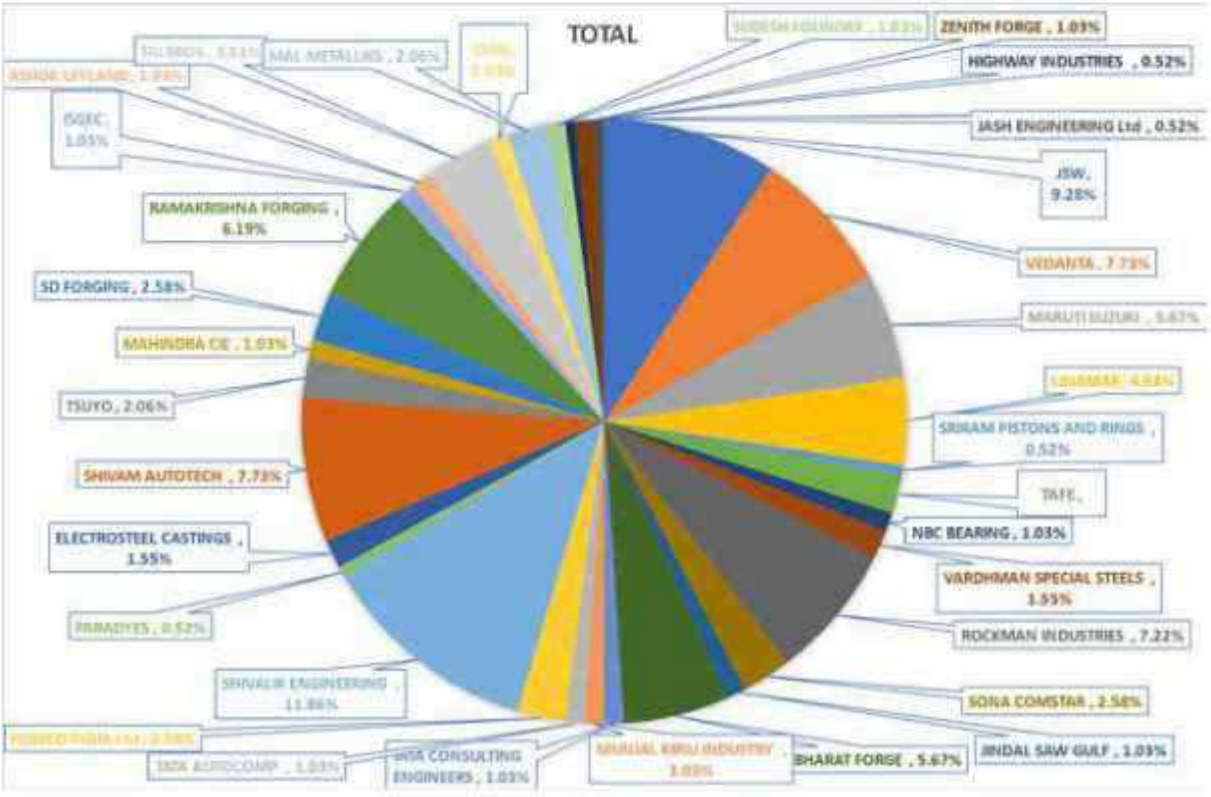

VIKRAM AMBALA SARABHAI

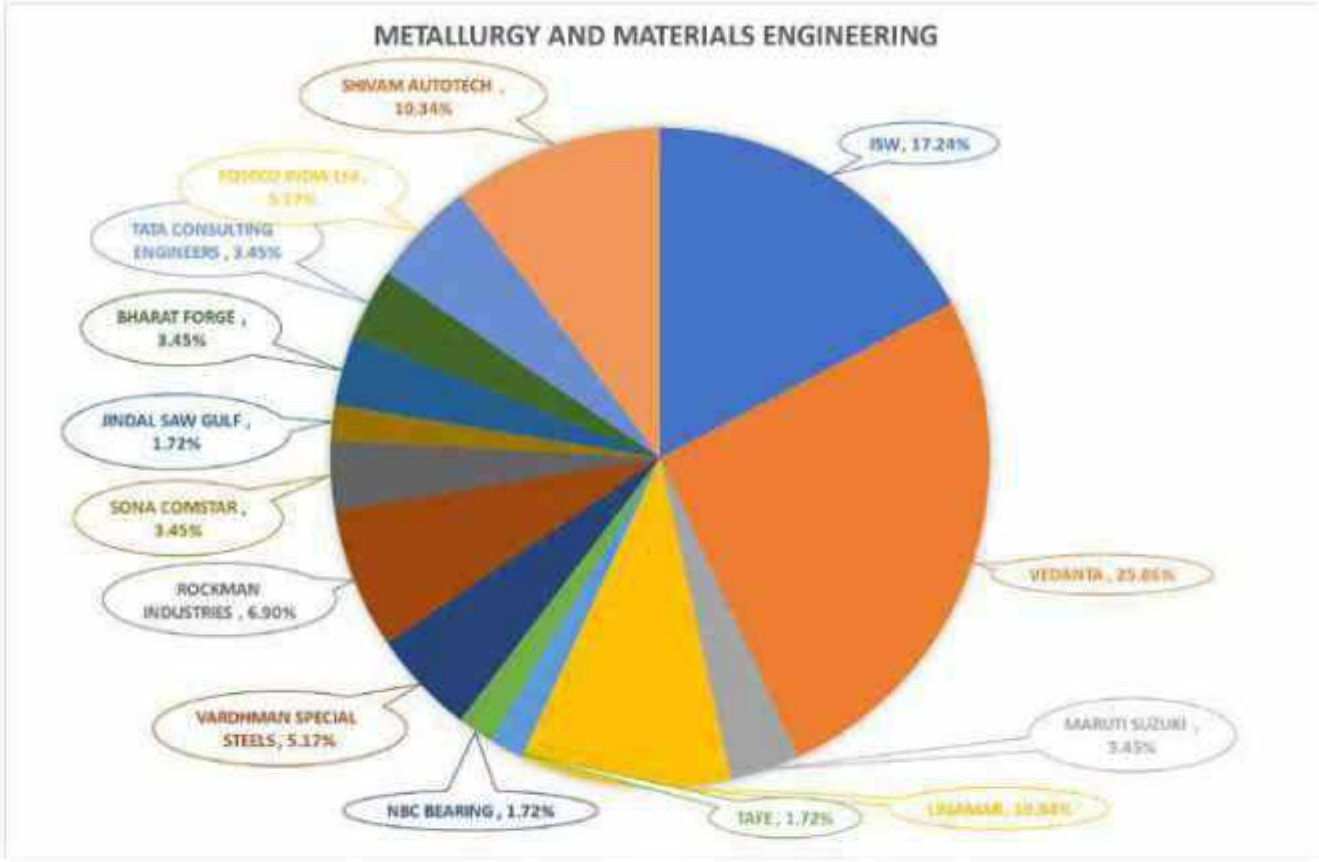

JAGDISH CHANDRA BOSE CHATRAWAS

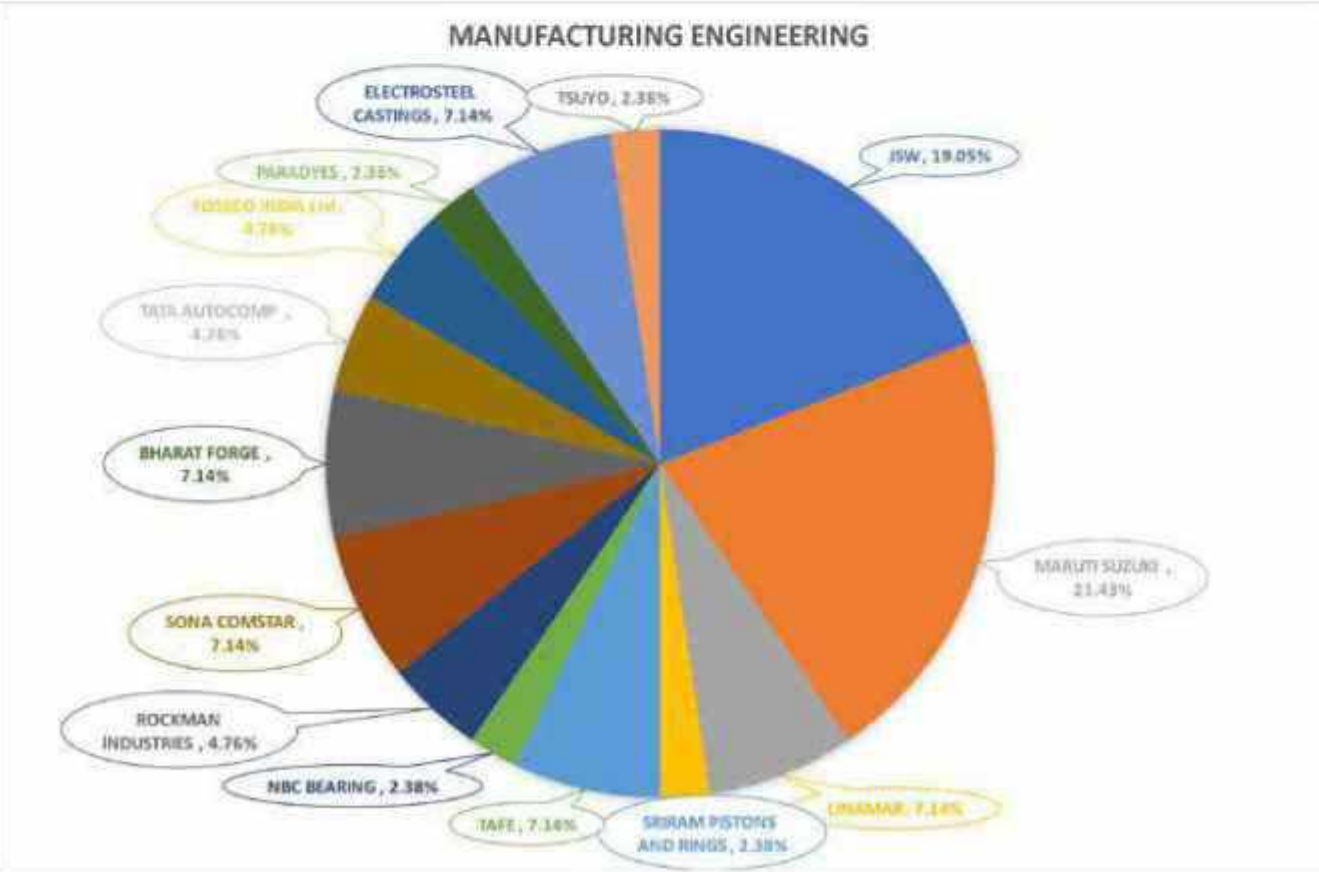
INDUSTRIAL LIAISON CELL

COMMITTEE MEMBERS

Faculty	
Dr. Anil Kumar Professor Drpt. of Applied Science and Humanities	Chairman
Dr. Subhankar Basu Assistant Professor Drpt. of Applied Science and Humanities	Member
Dr. Ratnesh Gupta Assistant Professor Drpt. of MME	Member
Dr. Himanshu Khandelwal Assistant Professor Drpt. of Foundry & Forge Technology	Member
Dr. Vinit Chack Assistant Professor Drpt. of Foundry & Forge Technology	Member
Dr. Ratnakar Das Assistant Professor Drpt. of ME	Member Secretary




METALLURGY AND MATERIALS ENGINEERING
SHIVAM AUTOTECH , 10.34%
JSW, 17.24%
TATA CONSULTING ENGINEERS , 3.45%
BHARAT FORGE , 3.45%
JINDAL SAW GULF , 1.72%
SONA COMSTAR , 3.45%
ROCKMAN INDUSTRIES , 6.90%
VEDANTA , 25.86%
VARDHMAN SPECIAL STEELS, 5.17%
MARUTI SUZUKI , 3.45%
NBC BEARING , 1.72%
TAFE , 1.72%


MANUFACTURING ENGINEERING
ELECTROSTEEL CASTINGS, 7.14%
TSUYO , 2.38%
JSW, 19.05%
BHARAT FORGE , 7.14%
MARUTI SUZUKI , 21.43%
SONA COMSTAR , 7.14%
ROCKMAN INDUSTRIES , 4.76%
NBC BEARING , 2.38%
TAFE , 7.14%
SRIRAM PISTONS AND RINGS , 2.38%

PLACEMENT 2022-23

Sl. No.	COMPANY	B.TECH.		ADVANCE DIPLOMA		M.TECH.			
		HIGHEST PAY - 14 LPA		HIGHEST PAY - 4.8 LPA		HIGHEST PAY - 4.8 LPA			
		AVERAGE PAY - 9.25 LPA		AVERAGE PAY - 2.75 LPA		AVERAGE PAY - 4.1 LPA			
		ME	MME	FOUNDRY	FORGE	FFT	ME	EE	MSE
1	JSW	8	10	-	-	-	-	-	-
2	VEDANTA	-	15	-	-	-	-	-	-
3	MARUTI SUZUKI	9	2	-	-	-	-	-	-
4	LINAMAR	3	6	-	-	-	-	-	-
5	SRIRAM PISTONS AND RINGS	1	-	-	-	-	-	-	-
6	TAFE	3	1	-	-	-	-	-	-
7	NBC BEARING	1	1	-	-	-	-	-	-
8	VARDHMAN SPECIAL STEELS	-	3	-	-	-	-	-	-
9	ROCKMAN INDUSTRIES	2	4	8	-	-	-	-	-
10	SONA COMSTAR	3	2	-	-	-	-	-	-
11	JINDAL SAW GULF	-	1	-	1	-	-	-	-
12	BHARAT FORGE	3	2	3	3	-	-	-	-
13	TATA CONSULTING ENGINEERS	-	2	-	-	-	-	-	-
14	MUNJAL KIRIU INDUSTRY	-	-	-	-	1	1	-	-
15	TATA AUTOCOMP	2	-	-	-	-	-	-	-
16	FOSECO INDIA Ltd	2	3	-	-	-	-	-	-
17	SHIVALIK ENGINEERING	-	-	23	-	-	-	-	-
18	PARADYES	1	-	-	-	-	-	-	-
19	ELECTROSTEEL CASTINGS	3	-	-	-	-	-	-	-
20	OSWAL INDUSTRIES LTD.						3		2
21	SHIVAM AUTOTECH	-	6	-	5	-		-	
22	TSUYO	1	-	1	2	-	-	-	-
23	MAHINDRA CIE	-	-	-	2	-	-	-	-
24	SD FORGING	-	-	-	5	-	-	-	-
25	RAMAKRISHNA FORGING	-	-	-	11	1	-	-	-
26	ISGEC	-	-	2	-	-	-	-	-
27	ASHOK LEYLAND	-	-	2	-	-	-	-	-
28	TALBROS	-	-	-	6	1	-	-	-
29	CHW	-	-	-	2	-	-	-	-
30	MAL METALLIKS	-	-	4	-	-	-	-	-
31	SUDESH FOUNDRY	-	-	2	-	-	-	-	-
32	HIGHWAY INDUSTRIES	-	-	-	1	-	-	-	-
33	ZENITH FORGE	-	-	-	2	-	-	-	-
34	JASH ENGINEERING Ltd	-	-	1	-	-	-	-	-

NIAMT STUDENT'S GYMKHANA

COMMITTEE MEMBERS

Dr. Shubhankar Basu Assistant Professor Drpt. of Aplied Science and Humanities	Chairman
Dr. Ratnakar Das Assistant Professor Drpt. Of ME	Member
Dr. Sriparna Chattopdhyay Assistant Professor Drpt. of Aplied Science and Humanities	Member
Dr. Mamta Sharma Hindi Officer	Member
A. K. Verma Assistant Registrar (Academics)	Member Secretary

Following were the events that took place in the session 2021-2022 by NIAMT Student's Gymkhana :-

Activities	Events
Sports	➢ Inter hostel sports festival. ➢ Intercollege sports festival participation at IIT BHU, IIT KGP, and BIT Mesra
Independence Day and Republic Day	➢ Dance, songs, and drama
Har Ghar Tiranga	➢ Street play and dance
Ek Bharat Shrestha Bharat (Jharkhand -Goa)	➢ Intra college Music festival ➢ Intra college workshop on fine arts
Spic Macay	➢ Pt. Kushal Das and Pt. Mithilesh Kumar Jha Musical night
Jinks-Pranav 2023	➢ Annual Cultural Festival

STUDENT ACTIVITIES

Kartavya- An effort towards educated INDIA

An idea born out of true social service is shinning today with the name KARTAVYA. An NGO initiative started in the year 2007 by B.Tech students of NIAMT Ranchi, aims at uplifting the economically and socially backward children of Ranchi. At present three centres are being operated by Kartavya in Ranchi namely Hatia centre, Tupudana centre & NIAMT centre. The NIAMT centre is fully run by the girls of NIAMT. Currently, we are providing free & quality education to around 95 students, with the help of our dedicated volunteers & committee members. Our major source of funding comes from alumni, sponsors & Kartavya Stall.

During the academic year from 1st April 2022 to 31st March 2023, we ensured that the organization run smoothly and continue to grow at the same time. For this, we took a number of steps like we started the culture of Parent Teacher Meetings (PTM), conducting fresh surveys and updating student's profiles, starting practical lab classes, revising our curriculum, and many more. These initiatives have helped the student to develop a keen interest in studies which has uplifted their academic performance. In addition to this we at Kartavya believe in the all-round development of a child, to ensure this we conducted a number of cultural events all around the year like drawing, singing, etc, especially during the festive days like Janmashtami, Raksha Bandhan, and even Independence Day celebration.

With the support from our alumni, sponsors & volunteers, Kartavya has been consistently taking small but successful steps to reach it's goal of impacting the lives of many unprivileged children through education.

Kartavya congratulates Ragini, a 9th standard student of Kartavya on getting selected in the under 15 Cricket team, Jharkhand. Keep up the hard work and keep shining.

INTERNAL COMMITTEES

1. **Internal Complaints Committee (ICC) under the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013**

1	Mrs. Madhu Kumari, Assistant Professor	Chairman
2	Deputy Registrar	Member
3	Dr. Mamta Sharma, Hindi Officer	Member
4	Representative from an NGO working on similar issues	Member
5	Dr. Sriparna Chattopadhyay	Coordinator

2. **Student Grievance Redressal Committee (SGRC) under the All India Council for Technical** Education (Redressal of Grievance of Students) Regulations, 2019

1	Director	Chairman
2	Dean, Student & Alumni Affairs	Member
3	Prof. Binod Kumar, Professor (MME)	Member
4	Prof. K. K. Singh, Professor (Forge)	Member
5	Chairperson, Internal Complaints Committee	Member
6	Deputy Registrar	Member
7	Assistant Registrar, Academic	Coordinator

3. **Audit Review Committee as per letter of Ministry of Education vide F. No. 2-1/2020-TS.IV, dated 08/01/2021**

1	Prof. K. K. Singh, Faculty Representative Member in the BoG	Chairman
2	Dean (P&D)	Member
3	Registrar	Member
4	Chairman, Purchase Committee	Member
5	Assistant Registrar, SP & EM	Member
6	Deputy Registrar	Coordinator

4. **Reservation/Welfare Cell for Reserved Categories**

1	Dr. B. Mallick, Associate Professor & Liaison Officer for SC	Chairman
2	Dr. Sriparna Chattopadhyay, Assistant Professor	Member
3	Dr. Deepak Kumar, Assistant Professor	Member
4	Mr. S. K. Soren, Assistant Professor	Member
5	Mr. Vineet Chak, Assistant Professor	Member
6	Mr. Sankar Behera, ASW	Coordinator

5. **Gender Budget Cell as per order of Ministry of Woman Child Development as endorsed by letter of Ministry of Education vide F. No. 17-7/2020-U.5, dated 09/07/2020**

1	Registrar	Chairman
2	Chairperson, Internal Complaints Committee	Member
3	Coordinator, Student Fostering Unit (Gymkhana)	Member
4	Assistant Registrar, Academic	Member
5	Deputy Registrar	Coordinator

6. **Anti-Ragging Squad under the All India Council for Technical Education (Prevention and Prohibition of Ragging in Technical Institutions, Universities including Deemed to be Universities imparting technical education) Regulations, 2009**

1	Dean, Academic	Chairman
2	Chief Hostel Warden	Member
3	All HODs	Members
4	All Warden of Halls	Members
5	Chairman, Security Management Committee	Coordinator

7. **Anti-Ragging Committee under the All India Council for Technical Education (Prevention and Prohibition of Ragging in Technical Institutions, Universities including Deemed to be Universities imparting technical education) Regulations, 2009**

Notified Separately by Academic Section Current Committee has been notified vide O.O. No. 225/2021, dated 03/12/2021

8. **Student Activity Cell* as per AICTE Guidelines**

1	Dean, Student & Alumni Affairs	Chairman
2	Chairman, Student Induction Program (SIP) Cell	Member
3	Chairman, Universal Human Value (UHV) Cell	Member
4	Chairman, Student Fostering Cell (Gymkhana)	Member
5	Assistant Registrar, Academic	Coordinator

* The Student Activity Cell will constitute the following three Cells/Units:

a. Student Induction Program (SIP) Cell

b. Universal Human Value (UHV) Cell

c. Student Fostering Unit (Gymkhana)

8A. Student Induction Program (SIP) Cell

1	Coordinator, UG Programmes	Chairman
2	Mrs. Sujata Gupta, Assistant Professor	Member
3	Dr. Chinmoy Chattopadhyay, Assistant Professor	Member
4	Hindi Officer	Member
5	Assistant Registrar, Academic	Coordinator

8B. Universal Human Value (UHV) Cell

1	Dr. Debdas Roy, Associate Professor	Chairman
2	Dr. S. K. Parida, Assistant Professor	Member
3	Senior Medical Officer	Member
4	Hindi Officer	Member
5	Assistant Registrar, Academic	Coordinator

8C. Student Fostering Unit (Gymkhana)

1	Dr. Subhankar Basu, Assistant Professor	Chairman
2	Dr. Ratnakar Das, Assistant Professor	Member
3	Dr. Sriparna Chattopadhyay, Assistant Professor	Member
4	Hindi Officer	Member
5	Assistant Registrar, Academic	Coordinator

9. Student Counselling Service (SCS) Cell as per AICTE Guidelines

1	Dean, Student & Alumni Affairs	Chairman
2	Coordinator, Placement & Professional Development Center	Member
3	Coordinator, Innovation & Entrepreneurship Development Center	Member
4	Senior Medical Officer	Member
5	Assistant Registrar, Academic	Coordinator

NIAMT Ranchi is organizing a 10 day Pakhwara from 25th November to 10 December 2022. The aim of this event is to raise awareness about discrimination against women and promote gender equality. This will be a key event is raising awareness of the issue and its potential solutions.

Infra Structure Development

Extension of Kalpana Chawla Hostel 76 bedded girls' hostel is under construction.

Extension of Nirala Hostel 64 beded boys' hostel is under construction.

New lab building is under construction To setup center of excellence in advance manufacturing.

HINDI CELL

The Hindi Cell of the Institute is working in accordance with the Official Language Policy of the Government of India. The activities of the institute for the year 2022-2023 are as follows -

- Providing support in the work of Hindi implementation in various departments and sections.
- Doing translation work as per requirement from time to time.
- Regular organization of meetings of the Official Language Implementation Committee of the Institute.
- Hindi workshop organized for employees in every quarter, the faculty members, officers and employees of the institute.
- Two Official language inspections were conducted in the institute during the year under review. First inspection was done at the ministry level. Second Inspection was done by the first subcommittee of the committee Parliamentary Official Language.
- During this time the institute's Hindi Coordination and all other necessary responsibilities were carried out by the cell.
- Education Day, Constitution Day, Tribal Day, yoga day youth Day etc. were organized in collaboration with Hindi Cell of the Institute.
- Hindi Fortnight was organized by the Hindi Cell of the Institute.
- Hindi officer participated in All India Hindi Day organized in Surat.
- Hindi officer participated in the North-East Official Language Conference held in Bhubaneswar.
- In connection with the inspection of the Parliamentary Committee Hindi Officer visited the Ministry and received necessary guidance from higher officials.
- Hindi officer participated in the following committees
    - Tender Committee
    - Committee on Sexual Harassment Against Women
    - Gymkhana Committee
    - Duty Steering Committee
    - Student Orientation Committee
    - Annual Report Committee

WORLD UNITY DAY

REPUBLIC DAY

YOGA DAY

SAHAJ YOG

Committee of parliament on official language and team of NIAMT Ranchi during inspection

HINDI DIWAS

VIGILANCE DAY

National Institute of Advanced Manufacturing Technology

A Centrally Funded Technical Institute Under MoE

(Govt. of India)

Hatia, Ranchi - 834003 (Jharkhand)

Annual Accounts

For the Financial Year 2022–23

(As per Revised Formats of Financial Statements for Central Higher Education Institutions)

Audited by :

M/s. Manmohan Singh & Co.

(Charted Accountants)

Ranchi


राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान
सृजनं विज्ञान विश्वम्
NIAMT
RANCHI
FORMERLY NIFFT
NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY, RANCHI
(Formerly NIFFT)

A Centrally Funded Technical Institute Under Ministry of Education, Govt. of India

STATEMENT OF ACCOUNTS
FOR THE FINANCIAL YEAR 2022-23

(As per Revised Formats of Financial Statements for Central Higher Educational Institutions)

Internal Auditor

M/s. Manmohan Singh & Co.
(Chartered Accountants)

Ranchi

NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY, RANCHI

STATEMENT OF ACCOUNTS FOR THE FINANCIAL YEAR 2022-23

CONTENTS

NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

HATIA, RANCHI - 834 003

BALANCE SHEET AS ON 31ST MARCH 2023

SOURCES OF FUNDS	Schedule	Current Year 2022-23	Previous Year 2021-22
CORPUS/CAPITAL FUND	1	1,31,71,47,557.47	1,20,16,00,773.91
DESIGNATED, EARMARKED AND ENDOWMENT FUND	2	1,06,40,538.40	1,06,20,163.40
HEFA LOAN	2A	8,26,36,071.00	8,64,41,921.00
CURRENT LIABILITIES	3	17,61,31,172.18	15,51,82,224.88
TOTAL		**1,58,65,55,339.05**	**1,45,38,45,083.19**

APPLICATION OF FUNDS	Schedule	Current Year 2022-23	Previous Year 2021-22
FIXED ASSETS	4		
a) Tangible Assets		72,53,61,222.45	29,53,51,443.88
b) Capital work-in-Progress		47,23,83,373.00	80,54,15,139.00
c) Intangible Assets		1,39,18,310.99	2,62,60,019.26
INVESTMENT FOR DESIGNATED, EARMARKED AND ENDOWMENT FUND	5	-	-
INVESTMENT - OTHERS	6	-	-
CURRENT ASSETS	7	19,98,48,093.55	16,98,67,175.99
LOANS, ADVANCES & DEPOSITS	8	17,50,44,339.06	15,69,51,305.06
TOTAL		**1,58,65,55,339.05**	**1,45,38,45,083.19**

For M/s Manmohan Singh & Co.
Chartered Accountants

CA J .P Sharma
(Partner)
M.NO. 402655

1st Signatory
Dy. Registrar
NIAMT, RANCHI
Dy. Registrar
राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान, राँची -3
National Institute of Advanced Manufacturing Technology, Ranchi-3

Registrar
कुलसचिव
Registrar
राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान, राँची-3
National Institute of Advanced Manufacturing Technology, Ranchi-3

निदेशक
Director
राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान,
National Institute of Advanced Manufacturing Technology,

SCHEDULE - 1: CORPUS/CAPITAL FUND

Particulars	Current Year	Previous Year
Balance at the beginning of the year	**1,20,16,00,773.91**	**1,15,05,09,184.78**
Add: Contributions towards Corpus/Capital fund	-	-
Add: Grants from UGC, Govt. of India, state Government to the extent utilised for capital expenditure	12,00,42,976.00	8,30,00,000.00
Add: Assets Purchased out of Earmarked Funds	-	-
Add: Assets Purchased out of Sponsored Projects, where ownership vests in the institution	-	-
Add: Assets Donated / Gifts Received	-	-
Add: Others Additions (Building appreciation)	-	-
Less: Others Deduction (Capital Grant Unutilized Refundable to MOE)	-	(68,73,198.00)
Add: Excess of Income over Expenditure transferred from the Income & Expenditure Account	-	-
TOTAL	**1,32,16,43,749.91**	**1,22,66,35,986.78**
Deduct: Deficit transferred from Income & Expenditure Account	**(44,96,192.44)**	**(2,50,35,212.87)**
Deduct: Amount reversed during the year based on CAG observation	-	-
Balance at the year end	**1,31,71,47,557.47**	**1,20,16,00,773.91**

MANMOHAN SINGH & CO. RANCHI Chartered Accountants

SCHEDULE - 2: EARMARKED FUND

Sr. No.	Name of the Project	Opening Balance	Receipts	Total	Expenditure	Closing Balance
1	*2*	*3*	*4*	*5(3+4)*	*6*	*7(5-6)*
1	Earmarked Fund for CISD Committee	20,00,000.00		20,00,000.00		**20,00,000.00**
2	Earmarked Fund for NIFFT Allumni Cell	16,68,855.40	20,375.00	16,89,230.40		**16,89,230.40**
3	Earmarked Fund (IRG)	49,01,643.00		49,01,643.00		**49,01,643.00**
4	Earmarked Fund-Project Overhead	12,50,551.00		12,50,551.00		**12,50,551.00**
5	Income Tax Refund	5,86,750.00		5,86,750.00		**5,86,750.00**
6	CISD Modular Kitchen Development (Utsav Mahto)	2,12,364.00		2,12,364.00		**2,12,364.00**
Total		**1,06,20,163.40**	**20,375.00**	**1,06,40,538.40**	**-**	**1,06,40,538.40**

MANMOHAN SINGH & CO. ★ Chartered Accountants ★ RANCHI

SCHEDULE - 2 (A): HEFA LOAN

	Particulars	FY 2022-23	FY 2021-22
1	Opening Balance	8,64,41,921.00	5,45,97,502.00
2	Add: Loan from HEFA (Amount directly paid to CPWD)	-	5,00,00,000.00
3	Add: Loan from HEFA (Amount directly paid to Supplier)	2,70,14,150.00	1,26,64,419.00
4	Add: Interest charged by HEFA	57,38,330.00	62,21,628.00
5	Less: Principal Installment Paid to HEFA Against Loan	3,08,20,000.00	3,08,20,000.00
6	Less: Interest paid to HEFA (Q1 TO Q3)	42,38,330.00	44,59,522.00
7	Less: 4th QTR Interest payable to Next FY	15,00,000.00	17,62,106.00
	Closing Balance (1+2+3+4-5-6)	**8,26,36,071.00**	**8,64,41,921.00**

MANMOHAN SINGH & CO. RANCHI Chartered Accountants

	CURRENT LIABILITIES		FY 2022-23	FY 2021-22
1	**Deposit From Staff**		18,65,907.00	19,78,698.00
2	**Deposit From Student**			
a	Caution Money		91,55,153.50	92,87,703.50
b	Unclaimed fees		-	-
3	**Deposit-Others**			
a	Earnest Money		49,06,153.00	35,20,653.00
b	Security Deposit		1,74,738.30	1,74,738.30
c	Performance Security		4,31,562.00	1,25,567.00
4	**Statutory Liabilities**			
a	LIC Premium		7,753.40	7,753.40
b	TDS U/s 192A		39,98,318.00	(30,895.00)
c	TDS U/s 194C		2,38,726.00	2,55,052.00
d	TDS U/s 194J		13,11,009.00	5,933.00
e	Employees Loan Repayment		19,607.00	19,607.00
f	Professional Tax on Salary		90,473.20	75,670.00
g	New Pension Scheme (Employees Contribution)		8,90,464.00	17,314.00
h	New Pension Scheme (Employer Contribution)		13,75,572.00	1,04,581.00
i	CPF Deduction from Salary		-	-
j	CGST TDS (1%)		1,63,532.50	65,781.00
k	SGST TDS (1%)		1,63,532.50	65,781.00
l	IGST TDS (2%)		89,662.00	1,92,342.00
5	**Other Current Liability**			
a	Receipt against Sponsored Projects	(Annexure-I to Schedule-2)	88,98,226.00	1,00,69,244.00
b	Receipt against Sponsored Fellowship & Scholarship	(Annexure-II to Schedule 2)	14,79,993.00	17,86,613.00
c	**Other Liabilities**		**FY 2022-23**	**FY 2021-22**
a	Account Payable/ Receivable		2,23,441.00	2,23,441.00
b	AICTE		1,40,000.00	1,40,000.00
c	Grant From CBSE Board		50,000.00	50,000.00
d	M/s Total Library Solution		92,784.00	92,784.00
e	Provisional Expenses		4,30,55,038.00	2,14,69,769.00
f	Amount Payable to Manoj Kumar		45,000.00	45,000.00
g	Amount Received From IIPC Project A/c-2730101004765		10,99,915.50	10,99,915.50
h	Grant of MoE (Closing Balance)		7,93,20,440.74	8,60,10,517.00
i	Interest Earned on Grant refundable to MOE		19,22,446.00	1,74,95,792.00
j	Amount Received from Unidentified Person		55,25,740.43	5,90,950.18
k	Deposit from CBI		1,70,000.00	1,70,000.00
l	UG & PG Summer Examination -2020		13,920.00	13,920.00
m	Amount Received from JUT		2,66,360.00	58,000.00
n	Tequip Fund Account		7,02,929.11	-
o	Amount Received from AICTE		2,25,500.00	-
p	Amount payable to Mess Contractor		80,17,275.00	
			17,61,31,172.18	**15,51,82,224.88**

ANNEXURE-I TO SCHEDULE - 3: SPONSORED PROJECTS

Sr. No.	Name of the Project	Opening Balance		Receipts	Total	Expenditure	Closing Balance	
		Credit	Debit				Credit	Debit
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
1	Direct Admission of Students Abroad(DASA)	1,28,175			1,28,175		1,28,175	-
2	Project-Board of Research in Nuclear Science(BRNS)	16,39,363			16,39,363		16,39,363	-
3	Project-Science and Engineering Research Board(Old)	1,80,450			1,80,450		1,80,450	-
4	Project-Science & Engineering Research Board(New 1)	2,96,849			2,96,849		2,96,849	-
5	Project-Science & Engineering Research Board(S.Basu)	15,390		321	15,711	9,279	6,432	
6	Technical Education Quality Improvement Programme	18,704			18,704		18,704	-
7	Science Research Engineering Board (P.S.Mondal)	23,13,366		39,971	23,53,337	2,76,550	20,76,787	-
8	Project Development Institute-Nigeria	4,69,095			4,69,095		4,69,095	-
9	Science Research Engineering Board (D.Roy)	13,70,120		39,934	14,10,054	5,29,001	8,81,053	-
10	Science Research Engineering Board (A K Pramanik)	22,66,900		39,930	23,06,830	4,39,235	18,67,595	-
11	AICTE Project (D Roy)	13,70,832			13,70,832	49,387	13,21,445	-
12	AICTE-Atal FDP Workshop	-		3,00,000	3,00,000	3,00,000	-	-
13	Womens Technology Park	-		2,49,985	2,49,985	2,37,707	12,278	
	Total	1,00,69,244	-	6,70,141	1,07,39,385	18,41,159	88,98,226	-

ANNEXURE-II TO SCHEDULE - 3: SPONSORED FELLOWSHIPS AND SCHOLARSHIPS

Sr. No.	Name of the Project	Opening Balance		Receipts	Total	Expenditure	Closing Balance	
		Credit	Debit				Credit	Debit
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
1	Govt. of India SC/ST Scholarship	54,700			54,700		54,700	-
2	Govt. of India ST Scholarship	-		7,68,000	7,68,000	7,68,000	-	-
3	S N Sinha Memorial Scholarship	5,000			5,000		5,000	-
4	State Scholarship for Students	15,69,413		45,56,125	61,25,538	48,62,745	12,62,793	-
5	Scholarship from Mahindra & Mahindra Ltd.	7,500		-	7,500	-	7,500	-
6	Tata Steel Ltd. (For PGCSM Course)	1,50,000		-	1,50,000	-	1,50,000	-
Total		17,86,613	-	53,24,125	71,10,738	56,30,745	14,79,993	-

MANMOHAN SINGH & CO. RANCHI Chartered Accountants

SCHEDULE - 4: FIXED ASSETS (CONSOLIDATED)

Sl. No	Assets Heads	Rate of Depreciation (%)	Gross Block				Depreciation for the Year			Net Block	
			Opening Balance 01.04.2022	Additions	Deduction	Closing Balance	Depreciation OB	Depreciation for the Year	Total Depreciation	As on 31.03.2023	As on 31.03.2022
1	*2*	*3*	*4*	*5*	*6*	*7=4+5-6*	*8*	*9*	*10=8+9*	*11=12+5-6-9*	*12*
1	Land	0%	-	-	-	-	-	-	-	-	-
2	Site Development	0%	-	-	-	-	-	-	-	-	-
3	Buildings (New)	2%	13,98,19,943.00	40,07,58,037.00	-	54,05,77,980.00	55,78,312.76	1,08,11,559.60	1,63,89,872.36	52,41,88,107.64	13,42,41,630.24
4	Building (Old)	2%	16,65,43,001.73	-	-	16,65,43,001.73	6,95,30,578.31	33,30,860.03	7,28,61,438.34	9,36,81,563.39	9,70,12,423.42
5	Roads & Bridges	2%	4,51,166.00	-	-	4,51,166.00	9,023.32	9,023.32	18,046.64	4,33,119.36	4,42,142.68
6	Sewage & Drainage	2%	-	-	-	-	-	-	-	-	-
7	Electrical Installation and Equipment	5%	12,25,28,261.97	-	-	12,25,28,261.97	12,25,05,967.24	-	12,25,05,967.24	-	-
8	Plant & Machinery	5%	44,44,027.00	10,33,929.00	-	54,77,956.00	7,91,776.00	2,58,383.05	10,50,159.05	44,27,796.95	36,52,251.00
9	Scientific & Laboratory Equipment	8%	2,32,73,655.00	5,13,68,198.00	-	7,46,41,853.00	48,37,014.40	59,71,348.24	1,08,08,362.64	6,38,33,490.36	1,84,36,640.60
10	Office Equipment	7.5%	68,46,683.36	4,54,286.00	-	73,00,969.36	24,79,681.30	4,31,938.43	29,11,619.73	43,89,349.63	43,67,002.06
11	Audio Visual Equipment	7.5%	10,85,551.00	17,87,099.00	-	28,72,650.00	3,85,953.69	2,38,720.88	6,24,674.57	22,47,975.43	6,99,597.31
12	Computers & Peripherals	20%	2,68,35,152.00	26,87,241.00	-	2,95,22,393.00	1,59,45,304.00	52,63,251.80	2,12,08,555.80	83,13,837.20	1,08,89,848.00
13	Furniture, Fixtures & Fittings	7.5%	2,55,89,132.89	17,34,691.00	-	2,73,23,823.89	2,32,91,863.58	3,68,706.00	2,36,60,569.58	36,57,206.94	22,91,221.94
14	Vehicles	10%	65,63,829.00	-	-	65,63,829.00	47,47,613.90	4,72,811.00	52,20,424.90	13,43,404.10	18,16,215.10
15	Lib. Books & Scientific Journals	10%	12,63,79,363.58	-	-	12,63,79,363.58	10,47,62,022.98	25,85,473.10	10,73,47,496.08	1,82,10,231.40	2,07,95,704.50
16	Tube wells & Water Supply	2%	7,02,564.00	-	-	7,02,564.00	53,372.67	14,051.28	67,423.95	6,35,140.05	6,49,191.33
17	Small Value Assets (Sports Equipment)	100%	62,244.00	64,779.00	-	1,27,023.00	4,668.30	1,22,354.70	1,27,023.00	-	57,575.70
18	Equipment UNESCO AID	8%	24,97,217.00	-	-	24,97,217.00	24,97,217.00	-	24,97,217.00	-	-
	Total (A)		65,36,21,791.53	45,98,88,260.00		1,11,35,10,051.53	35,74,20,369.45	2,98,78,481.43	38,72,98,850.88	72,53,61,222.45	29,53,51,443.88
19	Capital work in Progress (B)		80,54,15,139.00	5,58,79,233.00	38,89,10,999.00	47,23,83,373.00	-	-	-	47,23,83,373.00	80,54,15,139.00

Sl. No	Intangible Assets	Rate of Depreciation (%)	Gross Block				Depreciation for the Year			Net Block	
			Opening Balance 01.04.2022	Additions	Deduction	Closing Balance	Depreciation OB	Depreciation for the Year	Total Depreciation	As on 31.03.2023	As on 31.03.2022
20	Computer Software	40%	3,79,43,601.00	17,70,000.00	-	3,97,13,601.00	2,18,40,838.00	1,25,53,741.60	3,43,94,579.60	53,19,021.40	1,61,02,763.00
21	E-Journals	40%	6,78,48,826.00	1,10,91,742.00	-	7,89,40,568.00	5,77,03,236.40	1,26,48,042.00	7,03,51,278.40	85,89,289.60	1,01,45,589.60
22	Patents	9 Years	15,000.00	-	-	15,000.00	3,333.34	1,666.67	5,000.01	9,999.99	11,666.66
	Total (C)		10,58,07,427.00	1,28,61,742.00	-	11,86,69,169.00	7,95,47,407.74	2,52,03,450.27	10,47,50,858.01	1,39,18,310.99	2,62,60,019.26
	Grand Total (A+B+C)		1,56,48,44,357.53	52,86,29,235.00	38,89,10,999.00	1,70,45,62,593.53	43,69,67,777.19	5,50,81,931.70	49,20,49,708.89	1,21,16,62,906.44	1,12,70,26,602.14

SCHEDULE - 4 (A): PLAN FIXED ASSETS

Sl. No	Assets Heads	Rate of Depreciation (%)	Gross Block				Depreciation for the Year			Net Block	
			Opening Balance 01.04.2022	Additions	Deduction	Closing Balance	Depreciation OB	Depreciation for the Year	Total Depreciation	As on 31.03.2023	As on 31.03.2022
1	*2*	*3*	*4*	*5*	*6*	*7=4+5-6*	*8*	*9*	*10=8+9*	*11=12+5-6-9*	*12*
1	Land	0%	-			-	-		-	-	-
2	Site Development	0%	-			-	-		-	-	-
3	Buildings (New)	2%	13,98,19,943.00	40,07,58,037.00		54,05,77,980.00	55,78,312.76	1,08,11,559.60	1,63,89,872.36	**52,41,88,107.64**	13,42,41,630.24
4	Building (Old)	2%	16,65,43,001.73			16,65,43,001.73	6,95,30,578.31	33,30,860.03	7,28,61,438.34	**9,36,81,563.39**	9,70,12,423.42
5	Roads & Bridges	2%	4,51,166.00			4,51,166.00	9,023.32	9,023.32	18,046.64	4,33,119.36	4,42,142.68
6	Sevrage & Drainage	2%	-			-	-		-	-	-
7	Electrical Installation and Equipment	5%	12,25,28,261.97			12,25,28,261.97	12,25,05,967.24		12,25,05,967.24	-	-
8	Plant & Machinery	5%	42,20,640.00	10,33,929.00		52,54,569.00	7,61,513.05	2,47,213.70	10,08,726.75	**42,45,842.25**	34,59,126.95
9	Scientific & Laboratory Equipment	8%	2,32,24,095.00	5,13,68,198.00		7,45,92,293.00	48,17,190.40	59,67,383.44	1,07,84,573.84	**6,38,07,719.16**	1,84,06,904.60
10	Office Equipment	7.5%	62,76,020.36	4,54,286.00		67,30,306.36	23,56,998.62	3,89,138.70	27,46,137.32	**39,84,169.04**	39,19,021.74
11	Audio Visual Equipment	7.5%	7,91,811.00	17,87,099.00		25,78,910.00	2,41,096.44	2,16,690.38	4,57,786.82	**21,21,123.18**	5,50,714.56
12	Computers & Peripherals	20%	2,34,27,731.00	26,87,241.00		2,61,14,972.00	1,27,56,431.60	51,18,977.60	1,78,75,408.60	**82,39,563.40**	1,06,71,300.00
13	Furniture, Fixtures & Fittings	7.5%	2,54,15,084.89	17,34,691.00		2,71,49,775.89	2,32,35,440.70	3,55,652.40	2,35,91,093.10	**35,52,635.43**	21,73,596.83
14	Vehicles	10%	65,63,829.00			65,63,829.00	47,47,613.90	4,72,811.00	52,20,424.90	**13,43,404.10**	18,16,215.10
15	Lib. Books & Scientific Journals	10%	12,62,53,306.58			12,62,53,306.58	10,47,20,981.48	25,72,867.40	10,72,93,848.88	**1,81,37,821.60**	2,07,10,689.00
16	Tube wells & Water Supply	2%	5,85,069.00			5,85,069.00	36,923.37	11,701.38	48,624.75	**5,36,444.25**	5,48,145.63
17	Small Value Assets (Sports Equipment)	100%	62,244.00	64,779.00		1,27,023.00	4,668.30	1,22,854.70	1,27,023.00	-	57,575.70
18	Equipment UNESCO AID	8%	24,97,217.00			24,97,217.00	24,97,217.00		24,97,217.00	-	-
	Total (A)		**64,86,59,420.53**	**45,98,88,260.00**		**1,10,85,47,680.53**	**35,37,99,955.89**	**2,96,26,233.65**	**38,34,26,189.54**	**72,42,71,512.80**	**29,40,09,486.45**
19	Capital work in Progress (B)		**80,54,15,139.00**	**5,58,79,233.00**	**38,89,10,999.00**	**47,23,83,373.00**	-	-	-	**47,23,83,373.00**	**80,54,15,139.00**

Sl. No	Intangible Assets	Rate of Depreciation (%)	Gross Block				Depreciation for the Year			Net Block	
			Opening Balance 01.04.2022	Additions	Deduction	Closing Balance	Depreciation OB	Depreciation for the Year	Total Depreciation	As on 31.03.2023	As on 31.03.2022
20	Computer Software	40%	3,79,43,601.00	17,70,000.00		3,97,13,601.00	2,18,40,838.00	1,25,53,741.60	3,43,94,579.60	**53,19,021.40**	1,61,02,763.00
21	E-Journals	40%	6,78,48,826.00	1,10,91,742.00		7,89,40,568.00	5,77,03,236.40	1,25,48,042.00	7,03,51,278.40	**85,89,289.60**	1,01,45,589.60
22	Patents	9 Years	-			-	-		-	-	-
	Total (C)		**10,57,92,427.00**	**1,28,61,742.00**		**11,86,54,169.00**	**7,95,44,074.40**	**2,52,01,783.60**	**10,47,45,858.00**	**1,39,08,311.00**	**2,62,48,352.60**
	Grand Total (A+B+C)		**1,55,98,66,986.53**	**52,86,29,235.00**	**38,89,10,999.00**	**1,69,95,85,222.53**	**43,33,44,030.29**	**5,48,28,017.25**	**48,81,72,047.54**	**1,21,05,63,196.80**	**1,12,56,72,978.05**

MANMOHAN SINGH & CO. RANCHI Chartered Accountants

SCHEDULE - 4 (B): NON PLAN FIXED ASSETS

S.No	Assets Heads	Rate of Depreciation (%)	Gross Block				Depreciation for the Year			Net Block	
			Opening Balance 01.04.2022	Additions	Deduction	Closing Balance	Depreciation OB	Depreciation for the Year	Total Depreciation	As on 31.03.2023	As on 31.03.2022
1	*2*	*3*	*4*	*5*	*6*	*7=4+5-6*	*8*	*9*	*10=8+9*	*11=12+5-6-9*	*12*
1	Land	0%	-			-	-		-	-	-
2	Site Development	0%	-			-	-		-	-	-
3	Buildings - New	2%	-			-	-		-	-	-
4	Buildings - Old	2%									
5	Roads & Bridges	2%	-			-	-		-	-	-
6	Sevrage & Drainage	2%	-			-	-		-	-	-
7	Electrical installation and Equipment	5%	-			-	-		-	-	-
8	Plant & Machinery	5%	2,23,387.00			2,23,387.00	30,262.95	11,169.35	41,432.30	**1,81,954.70**	1,93,124.05
9	Scientific & Laboratory Equipment	8%	49,560.00			49,560.00	19,824.00	3,964.80	23,788.80	**25,771.20**	29,736.00
10	Office Equipment	7.5%	5,70,663.00			5,70,663.00	1,22,682.68	42,799.73	1,65,482.41	**4,05,180.59**	**4,47,980.32**
11	Audio Visual Equipment	7.5%	2,93,740.00			2,93,740.00	1,44,857.25	22,030.50	1,66,887.75	**1,26,852.25**	1,48,882.75
12	Computers & Peripherals	20%	34,07,421.00			34,07,421.00	31,88,873.00	1,44,274.20	33,33,147.20	**74,273.80**	2,18,548.00
13	Furniture, Fixtures & Fittings	7.5%	1,74,048.00			1,74,048.00	56,422.88	13,053.60	69,476.48	**1,04,571.51**	1,17,625.11
14	Vehicles	10%	-			-	-		-	-	-
15	Lib. Books & Scientific Journals	10%	1,26,057.00			1,26,057.00	41,041.50	12,605.70	53,647.20	**72,409.80**	85,015.50
16	Tube wells & Water Supply	2%	1,17,495.00			1,17,495.00	16,449.30	2,349.90	18,799.20	**98,695.80**	1,01,045.70
17	Small Value Assets	100%	-			-	-		-	-	-
18	Equipment - UNESCO Aid	8%									
	Total (A)		**49,62,371.00**	-		**49,62,371.00**	**36,20,413.56**	**2,52,247.78**	**38,72,661.34**	10,89,709.65	13,41,957.43
17	Capital work in Progress (B)	-	-	-	-	-	-	-	-	-	-

S.No	Intangible Assets	Rate of Depreciation	Gross Block				Depreciation for the Year			Net Block	
			Opening Balance 01.04.2022	Additions	Deduction	Closing Balance	Depreciation OB	Depreciation for the Year	Total Depreciation	As on 31.03.2023	As on 31.03.2022
18	Computer Software	40	-			-	-		-	-	-
19	E-Journals	40	-			-	-		-	-	-
20	Patents	9 Years	15,000.00			15,000.00	3,333.34	1,666.67	5,000.01	9,999.99	11,666.66
	Total (C)		**15,000.00**	-		**15,000.00**	**3,333.34**	**1,666.67**	5,000.01	9,999.99	11,666.66
	Grand Total (A+B+C)		**49,77,371.00**	-		**49,77,371.00**	**36,23,746.90**	**2,53,914.45**	**38,77,661.35**	10,99,709.64	13,53,624.09

SCHEDULE - 7: CURRENT ASSETS

	PARTICULAR	FY 2022-23	FY 2021-22
1	**Sundry Debtors:**		
a	Debts outstanding for a period exceeding six months	5,14,152.68	5,14,152.68
2	**Cash and Bank Balances**		
a	In Saving Accounts		
i	Canara Bank SB A/c No. 2730101006939 (IRG)	9,38,65,007.80	2,92,40,305.28
ii	Canara Bank SB A/c No. 273010109959 (Closed)	-	-
iii	SBI Hatia SB A/c No.-11026359877 (O.B) (Closed)	-	-
iv	Canara Bank SB A/c No. 2730101011451 (OH-31)	3,11,10,731.75	3,82,39,741.75
v	Canara Bank SB A/c No. 2730101011452 (OH-36)	4,33,11,011.83	5,78,81,468.83
vi	Canara Bank SB A/c No. 2730101011453 (OH-35)	1,43,69,164.00	1,52,98,033.00
vii	Canara Bank SB A/c. No.2730101012429 (SERB Project II)	29,62,935.00	60,53,326.00
viii	Canara Bank SB A/c.No.273010101011923 (SERB Project I)	2,367.00	11,323.00
ix	Canara Bank Escrow A/c -2730101012032 (Principal Payment Account)	14,82,937.00	1,63,72,148.00
x	Canara Bank Escrow A/c -2730101012033 (Interest Payment Acount)	3,442.00	2,770.00
xi	Canara Bank Escrow A/c -2730101012029 (Fees Receivable Account)	-	-
xii	Canara Bank Escrow A/c -2730101012031 (Grant Receivable Account)	65,416.00	63,553.00
xiii	Canara Bank A/c.No.-2730101001031 (Allumni Cell)	48,296.40	46,921.40
xiv	Canara Bank SB A/c.No. 2730101012610 (Online)	11,70,817.61	21,75,388.17
xv	SBI online Account-38979437865	64,60,359.48	30,18,107.88
xvi	HDFC Fees Receipt Account	34,31,408.00	-
xvii	SBI (FLC) A/c-41773834634	1,00,000.00	-
3	**Cash**		
a	Cash in hand	110.00	-
4	**Allumni Fund Investment**		
a	FDR/2730401001400/10	1,60,823.00	1,60,823.00
b	FDR/2730401001401/10	1,31,148.00	1,31,148.00
c	FDR/2730401001697/4	5,19,853.00	5,19,853.00
5	**TDS Receivable**	1,38,113.00	1,38,113.00
	TOTAL	**19,98,48,093.55**	**16,98,67,175.99**

SCHEDULE - 8: LOANS, ADVANCES & DEPOSITS

		FY 2022-23	FY 2021-22
1	**Advances to Employees: (Non Interest Bearing)**		
a	Expenses Advance	5,75,915.00	2,66,042.00
b	Festival Advance	-	-
c	Leave Travel Concession Advance	1,60,766.00	1,46,972.00
d	Medical Advance	7,72,188.00	18,12,188.00
e	Travelling Advance	78,327.00	53,327.00
f	Rolling Advance	2,78,820.00	3,35,239.00
g	CPDA Advance	6,34,824.00	71,300.00
2	**Advances to Employees: (Interest Bearing)**		
a	Computer Advance	76,300.00	1,50,100.00
b	Car/Motorcycle/Scooter Advance	-	4,000.00
3	**Advances & Other amounts Recoverable**		
I	**Institute Activities**		
a	NIFFT-Golden Jubilee Celebration	20,10,199.33	20,10,199.33
b	Contribution to Annual Feast-JIINKS	16,00,000.00	24,80,000.00
c	SBI online A/c -36228721268 (Old)	13,10,662.20	13,10,662.20
d	Advance to NIFFT Student's Gymkhana	2,60,000.00	60,000.00
e	SBI online A/c -38979437865 (New)	-	-
II	**Advance to Suppliers**		
a	M/s Ed.CIL (India) Ltd. (for Campus Wide Networking)		-
b	M/s National Informatic Centre	3,30,73,625.00	3,29,29,545.00
c	M/s Patents Info	15,000.00	15,000.00
d	M/s Sreeleathers	3,235.00	3,235.00
e	Central Public Works Department (CPWD)	12,08,60,947.00	10,39,09,604.00
f	Advance to SPIC Macy	10,000.00	10,000.00
g	Advance paid to Sharda Services	-	-
h	CarrierMedia Pvt. Ltd.	11,888.00	11,888.00
i	Kirloskar Oil EngineLtd.	58,174.00	58,174.00
j	Abhishek Hembrom	42,000.00	-
k	Hemant Kumar Gupta	33,000.00	-
l	Hira Lal Das	28,000.00	-
m	IIT,Delhi	5,31,000.00	-
n	Roshni Kumari	12,000.00	-
o	Vikash Prasad	35,000.00	-
4	**Prepaid Expense**		
a	Pre Paid Internet Expenses	10,79,417.00	9,77,349.00

Contd..

		FY 2022-23	FY 2021-22
5	**Deposit with suppliers**		
I	**Telephone**		
a	Security Deposit With P&T Department	29,550.00	29,550.00
II	**Electricity**		
a	Security Deposit With Jharkhand Electricity Board	17,21,261.00	12,15,000.00
III	**Medical**		
a	M/s. Mecon Ltd.	5,00,000.00	5,00,000.00
IV	**Academic**		
a	AICTE	1,88,047.00	1,88,047.00
b	Security Deposit With Ranchi University	2,50,000.00	2,50,000.00
V	**Others**		
a	CBI Attachment	5,54,613.00	5,54,613.00
b	Security Deposit & Earnest Money (O.B.)	2,16,707.00	2,16,707.00
c	SBI (FDR) Scholar Fund	23,378.00	23,378.00
d	Security Deposit With Jayant Gas Co.	32,501.00	32,501.00
e	Student Welfare Fund	21,563.00	21,563.00
f	Deposits Against Foreign Letter of Credit with Canara Bank	70,70,512.53	65,21,899.53
VI	**Income Accrued:**		
a	On Advance to Employees	14,143.00	14,143.00
VII	**Claims Receivable**		
a	Amount Receivable from M.tab	1,80,000.00	1,80,000.00
b	Amount Receivable from Pensioners	56,450.00	56,450.00
c	Income Tax (TDS) Refundable-Unrealized	4,96,476.00	4,96,476.00
d	Rent Receivable from BSNL	21,000.00	21,000.00
e	TDS - Unrealized	1,153.00	1,153.00
f	Amount Recoverable from S N Singh	-	14,000.00
g	Amount Receivable from Ankit Sharma	200.00	-
h	Amount Receivable from Vikash Kumar (CCC)	100.00	-
i	Medical Reimbursement Receivable (Aditya Kumar)	1,15,397.00	-
		17,50,44,339.06	**15,69,51,305.06**

NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

HATIA, RANCHI - 834 003

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON 31ST MARCH, 2023

INCOME	Schedule	Current Year 2022-23	Previous Year 2021-22
ACADEMIC RECEIPTS	9	4,99,56,534.00	2,03,05,206.00
GRANTS AND SUBSIDIES (OH-31 and OH-36 from MOE)	10	36,43,47,100.26	34,09,98,681.00
INCOME FROM INVESTMENT	11	-	-
INTREST EARNED	12	14,21,486.00	2,30,989.00
OTHER INCOME	13	2,64,79,370.26	81,95,641.75
PRIOR PERIOD INCOME	14	-	-
TOTAL INCOME (A)		**44,22,04,490.52**	**36,97,30,517.75**

EXPENDITURE	Schedule	Current Year 2022-23	Previous Year 2021-22
STAFF PAYMENT & BENEFITS (Establishment Expenses)	15	30,62,51,441.71	29,23,10,772.98
ACADEMIC EXPENSES	16	4,06,43,955.82	2,23,09,311.27
ADMINISTRATIVE AND GENERAL EXPENSES	17	3,43,95,063.10	2,67,45,034.25
TRANSPORTATION EXPENSES	18	9,29,738.00	5,08,579.00
REPAIR & MAINTENANCE EXPENSES	19	93,98,552.63	50,84,867.00
FINANCE COSTS	20	-	-
DEPRECIATION	4	5,50,81,931.70	4,78,07,166.12
OTHER EXPENSES	21	-	-
PRIOR PERIOD EXPENSES	22	-	-
TOTAL EXPENDITURE (B)		**44,67,00,682.96**	**39,47,65,730.62**
Balance Being Excess of Income over Expenditure (A-B)		**(44,96,192.44)**	**(2,50,35,212.87)**
Transfer to / from Designated Fund		-	-
Balance Being Surplus/(Deficit) Carried to Capital Fund		**(44,96,192.44)**	**(2,50,35,212.87)**

Significant Accounting Policies	23	
Contingent Liabilities & Notes to Accounts	24	

For M/s Manmohan Singh & Co.
Chartered Accountants

CA J .P Sharma
(Partner)
M.NO. 402655

MANMOHAN SINGH & CO. RANCHI Chartered Accountants

Deputy Registrar

Registrar
कुलसचिव

Director

राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान, राँची-3
National Institute of Advanced Manufacturing Technology, Ranchi-3

SCHEDULE - 9: ACADEMIC RECEIPTS

	PARTICULAR	FY 2022-23	FY 2021-22
	FEES FROM STUDENTS		
1	**Academic**		
a	Admission Fee	17,500.00	54,800.00
b	Application Fee	1,38,769.00	2,05,000.00
c	Computer Fee	9,46,860.00	7,88,000.00
d	Grade Card Fee	5,700.00	36,450.00
e	Library Access Fee	9,47,500.00	7,99,250.00
f	Registration/Enrolment Fee	2,07,300.00	1,73,400.00
g	Seat Rent	17,65,800.00	5,49,000.00
h	Tuition Fees	4,04,29,613.00	1,52,48,450.00
	Total (A)	**4,44,59,042.00**	**1,78,54,350.00**
2	**Examinations**		
a	Examination Fee-Institute	4,76,700.00	3,93,000.00
b	Examination Fee-Ranchi University	3,000.00	1,82,700.00
c	Examination Fees-Jharkhand Technical University	52,900.00	7,400.00
	Total (B)	**5,32,600.00**	**5,83,100.00**
3	**Other Fees**		
a	Fines & Penalties	90,092.00	556.00
b	Gymkhana Fee	2,83,950.00	2,28,900.00
c	Hostel Fee	7,800.00	54,200.00
d	Hostel Maintenance Fee (Establishment Charges)	37,80,900.00	9,18,000.00
e	Identity Card Fee (Re-issued)	-	50.00
f	Internet Access Fee	2,84,050.00	2,36,400.00
g	Medical Fee	5,18,000.00	4,21,500.00
h	Seminar/Thesis Fees	-	8,150.00
i	Exam Paper Evaluation Fees	100.00	-
	Total (C)	**49,64,892.00**	**18,67,756.00**
	GRAND TOTAL (A+B+C)	**4,99,56,534.00**	**2,03,05,206.00**

SCHEDULE -10: GRANTS

PARTICULAR	Govt. of India(MOE)		FY 2022-23	FY 2021-22
	Plan*	Non Plan		
Grant of MOE (Closing Balance) for 2021-22 b/f	68,73,198.00	7,91,37,319.00	7,91,37,319.00	6,81,36,000.00
Add: Receipts during the Year 2022-23	11,35,00,000.00	36,42,00,000.00	36,42,00,000.00	35,20,00,000.00
Less: Amount Utilised during 2022-23	**12,00,42,976.00**	**36,43,47,100.26**	**36,43,47,100.26**	34,09,98,681.00
Grant of MOE (Closing Balance) for 2022-23 c/f	3,30,222.00	7,89,90,218.74	7,89,90,218.74	7,91,37,319.00
Total			**36,43,47,100.26**	**34,09,98,681.00**

***For Information purpose only not part of Income & Expenditure A/c**

SCHEDULE - 11: INCOME FROM INVESTMENTS

PARTICULAR	FY 2022-23	FY 2021-22
1 Interest on Term Deposit with Nationalized Bank	-	-
Less: Transfer to Interest Refundable to MOE		
2 Interest accrued on Term Deposit but not received	-	-
Total	-	-

SCHEDULE - 12: INTEREST EARNED

PARTICULAR	Plan	Non Plan	FY 2022-23	FY 2021-22
1. Interest on Saving Account with scheduled banks				-
Less: Interest earned on Govt.fund transferable to MOE				
2. Interest Earned as Income	-	-	13,96,666.00	-
3. Interest on Loans of Employees			24,820.00	2,30,989.00
Total (2+3)			**14,21,486.00**	**2,30,989.00**

MANMOHAN SINGH & CO. RANCHI Chartered Accountants

SCHEDULE - 13: OTHER INCOME

PARTICULAR	FY 2022-23	FY 2021-22
A. Income from Land & Buildings		
1. Electricity Charges Recovered	2,33,067.00	2,60,148.00
2. Rent Recovered	2,83,780.00	1,18,750.00
3. License Fee Recovered	7,76,807.00	6,22,240.00
4. Water Charges Recovered	1,684.00	1,330.00
5. Rent for Ground	-	18,000.00
6. Rent for Auditorium	-	2,000.00
7. Rent of Cafeteria	9,600.00	-
Total (A)	**13,04,938.00**	**10,22,468.00**
B. Others		
1. Others Incomes		
a) Bus Charges Recovery	2,99,509.00	24,615.00
b) Certificate Verification & Transcript Fee	51,000.00	30,120.00
c) Liquidity Damage	4,781.00	-
2. Income From Consultancy	38,335.00	-
3. Misc. Receipts	20,662.26	5,735.15
4. Recruitment Fees	1,33,900.00	-
5. RTI Fees	200.00	80.00
6. Mess Fees	2,45,98,125.00	63,26,649.00
7. Fine and Penalty Recovery from Suppliers	7,000.00	-
8. Triable Area Allowance Recovery	20,920.00	5,46,764.00
9. Bonus Recovery	-	1,87,200.00
10. Donation	-	50,000.00
11. Ticket Cancellation Refund	-	2,010.60
Total (B)	**2,51,74,432.26**	**71,73,173.75**
Grand Total (A+B)	**2,64,79,370.26**	**81,95,641.75**

MANMOHAN SINGH & CO. Chartered Accountants RANCHI

SCHEDULE - 15: STAFF PAYMENTS & BENEFITS (ESTABLISHMENT EXPENSES)

PARTICULAR	FY 2022-23			FY 2021-22		
	Plan	Non Plan	Total	Plan	Non Plan	Total
1. Salaries and Wages						
a) Salaries and Wages(Teaching & Non Teaching)	-	15,51,67,558.00	**15,51,67,558.00**	-	13,82,10,547.00	**13,82,10,547.00**
b) Salary Arrear	-	45,95,035.00	**45,95,035.00**	-	24,62,272.00	**24,62,272.00**
2. Allowance and Bonus	-	-	-	-	-	-
3. Retirement and Terminal Benefits						
a) Composite Transfer/TA Grant	-	2,93,786.00	**2,93,786.00**	-	1,50,874.00	**1,50,874.00**
b) Encashment of Leave	-	18,82,718.00	**18,82,718.00**	-	18,92,292.00	**18,92,292.00**
c) Leave Salary & Pension Contribution	-	4,62,426.00	**4,62,426.00**	-	4,53,482.00	**4,53,482.00**
d) Earned Leave	-	29,05,700.00	**29,05,700.00**	-	68,27,620.00	**68,27,620.00**
e) Payment of Gratuity	-	28,72,091.00	**28,72,091.00**	-	92,78,946.00	**92,78,946.00**
f) Pension	-	7,17,96,508.00	**7,17,96,508.00**	-	5,75,57,659.00	**5,75,57,659.00**
g) Commutation	-	7,53,193.00	**7,53,193.00**	-	1,21,83,638.00	**1,21,83,638.00**
h) Arrear to Pensioner	-	9,93,340.00	**9,93,340.00**		1,34,01,864.00	**1,34,01,864.00**
4. Leave Travel Concession facilities	-	13,44,671.00	**13,44,671.00**	-	2,77,174.00	**2,77,174.00**
5. Medical Facility	-	49,44,331.00	**49,44,331.00**	-	25,38,756.00	**25,38,756.00**
6. Children Education Allowance	-	12,00,000.00	**12,00,000.00**	-	12,15,000.00	**12,15,000.00**
7. Honorarium	-	5,000.00	**5,000.00**	-	5,000.00	**5,000.00**
8. Telphone Facility	-	3,67,016.00	**3,67,016.00**	-	3,15,090.00	**3,15,090.00**
9. CPDA Allowance	-	17,33,582.00	**17,33,582.00**	-	9,78,077.98	**9,78,077.98**
Staff Development & Training Expenses	-	14,000.00	**14,000.00**	-	-	-
11. Payment to Adhoc Staff	-					
a) Salary to Contractual Faculty	-	94,61,229.00	**94,61,229.00**	-	-	-
b) Everest Human Resource-Manpower Supply	-	1,96,10,542.00	**1,96,10,542.00**	-	1,89,41,956.00	**1,89,41,956.00**
c) Bull Fighter Security-Manpower Supply	-	1,71,63,703.71	**1,71,63,703.71**	-	1,58,65,656.00	**1,58,65,656.00**
d) Salary-Lakhan Rajak	-	-	-	-	1,74,439.00	**1,74,439.00**
e) Housekeeping & Sanitation	-	86,22,748.00	**86,22,748.00**	-	95,19,026.00	**95,19,026.00**
f) Other Services Outsourcing	-	62,264.00	**62,264.00**	-	61,404.00	**61,404.00**
TOTAL	-	**30,62,51,441.71**	**30,62,51,441.71**	-	**29,23,10,772.98**	**29,22,49,368.98**

MANMOHAN SINGH & CO. RANCHI Chartered Accountants

SCHEDULE - 16: ACADEMIC EXPENSES

PARTICULAR	FY 2022-23			FY 2021-22		
	Plan	Non Plan	Total	Plan	Non Plan	Total
1. Examination Expenses	-	2,48,051.00	**2,48,051.00**	-	66,555.00	**66,555.00**
2. Payment to Visiting Faculty	-	2,02,900.00	**2,02,900.00**	-	2,26,700.00	**2,26,700.00**
3. Admission Expenses	-	18,710.00	**18,710.00**	-	68,000.00	**68,000.00**
4. Stipend /Merit Cum Means Scholarship	-					
a) Merit-Cum-Means Scholarship	-	-	-	-	27,20,000.00	**27,20,000.00**
b) Scholarship to M.Tech Students	-	3,72,000.00	**3,72,000.00**	-	30,89,695.00	**30,89,695.00**
c) Stipend to Advanced Diploma Course Students	-	43,70,000.00	**43,70,000.00**	-	42,10,000.00	**42,10,000.00**
d) Stipend to PhD Scholars	-	53,23,866.00	**53,23,866.00**	-	39,68,000.00	**39,68,000.00**
5. Student Welfare Expenses	-					
a) NIFFT Clinic Expenses	-	-	-	-	-	-
b) Student Medical Reimbursement	-	-	-	-	-	-
c) Students Recreation Activities	-	48,635.00	**48,635.00**	-		-
d) Medical Insurance of Students	-	4,28,104.00	**4,28,104.00**	-	3,97,530.00	**3,97,530.00**
6. Laboratory & Workshop Expenses	-	14,55,685.82	**14,55,685.82**	-	8,82,377.00	**8,82,377.00**
7. Participation in Seminar & Conferences	-		-	-	-	-
8. Seminar/Workshop/Conference Expenses	-	9,04,353.00	**9,04,353.00**	-	2,30,603.27	**2,30,603.27**
9. Other Academic Expenses	-	-	-	-	-	-
10. Deemed University Fees	-	-	-	-	-	-
11. Subscription/Membership Fees	-	-	-	-	-	-
12. Financial Assistance for Cources/Seminar	-	-	-	-	1,67,217.00	**1,67,217.00**
13. NIAMT Registration Expenses	-	-	-	-	59,000.00	**59,000.00**
14. Membership Fees	-	-	-	-	2,242.00	**2,242.00**
15. IRG Expenditure						-
1. Examination Expenses-IRG		1,66,200.00	**1,66,200.00**		4,83,080.00	**4,83,080.00**
2. Mess Bill Reimbursement		2,65,37,089.00	**2,65,37,089.00**		56,21,730.00	**56,21,730.00**
3. SPIC MACAY Expenses		-	-		24,182.00	**24,182.00**
4. Student Medical Expenditure		1,44,533.00	**1,44,533.00**		92,400.00	**92,400.00**
5. Students Activity Gymkhana		2,19,753.00	**2,19,753.00**		-	-
6. Alumni Cell Expenses		2,04,076.00	**2,04,076.00**		-	-
TOTAL	-	**4,06,43,955.82**	4,06,43,955.82	-	**2,23,09,311.27**	**2,23,09,311.27**

SCHEDULE - 17: ADMINISTRATIVE AND GENERAL EXPENSES

PARTICULAR	FY 2022-23			FY 2021-22		
	Plan	Non Plan	Total	Plan	Non Plan	Total
A) Infrastructure						
a) Electricity & Power						
a) D.G. Set Fuel Expenses	-	10,77,423.00	**10,77,423.00**	-	7,75,790.00	**7,75,790.00**
b) Jharkhand Bijli Vitran Nigam Ltd.	-	91,05,211.00	**91,05,211.00**	-	75,81,756.00	**75,81,756.00**
b) Rent, Rates and Taxes			-			-
a) Lease Rent to M/s HEC Ltd.	-	52,000.00	**52,000.00**	-	51,804.00	**51,804.00**
b) Municipal Tax	-	34,98,351.00	**34,98,351.00**	-	13,65,004.00	**13,65,004.00**
B) Communication						
a) Telephone, Fax and Internet Charges						
a) M/s BSNL	-	54,459.00	**54,459.00**	-	90,479.84	**90,479.84**
b) Other Mobile & Landline	-	49,826.20	**49,826.20**	-	-	-
c) Internet Leased Line	-	9,77,349.00	**9,77,349.00**	-	13,20,764.00	**13,20,764.00**
b) Postage & Stationery Expenses	-	-	-	-	25,326.00	**25,326.00**
C) Others Expenditure						
I) Advertisement & Publicity						
a) M/s Employment News	-	10,03,916.00	**10,03,916.00**	-	-	-
b) Ridge Advertisement Marketing Consultant	-	-	-		5,70,796.00	**5,70,796.00**

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MANMOHAN SINGH & CO. RANCHI Chartered Accountants

PARTICULAR	FY 2022-23			FY 2021-22		
	Plan	Non Plan	Total	Plan	Non Plan	Total
II) Hospitality Expenses	-	4,30,855.00	**4,30,855.00**	-	1,04,544.00	**1,04,544.00**
III) Internal & CAG Auditor Remuneration	-	4,58,722.00	**4,58,722.00**	-	2,71,078.00	**2,71,078.00**
IV) Magazine/Journals/News Paper/Subscriptions	-		-	-	3,961.00	**3,961.00**
V) Printing & Stationary (Consumption)	-	8,41,081.00	**8,41,081.00**	-	9,37,870.00	**9,37,870.00**
VI) Security Expenses			-	-	-	-
Jharkhand Home Guards		81,48,250.00	**81,48,250.00**		85,67,350.00	**85,67,350.00**
VII) Sitting Charges for Meetings	-	4,86,824.00	**4,86,824.00**	-	5,13,728.00	**5,13,728.00**
VIII) Travelling & Conveyance	-	10,79,621.80	**10,79,621.80**	-	3,15,494.25	**3,15,494.25**
IX) Legal Expenses	-	2,27,290.00	**2,27,290.00**	-	97,850.00	**97,850.00**
X) Bank Charges	-	9,156.60	**9,156.60**	-	19,879.16	**19,879.16**
XI) Miscellaneous Expenditure	-	100.00	**100.00**	-	17,82,590.00	**17,82,590.00**
XII) Gardning & Horticulture	-	29,580.00	**29,580.00**	-	1,42,910.00	**1,42,910.00**
XIII) Office & Departmental Expenses (NIAMT)	-	26,55,861.56	**26,55,861.56**	-	13,23,812.00	**13,23,812.00**
XIV) Admin Function/Event	-	29,96,298.94	**29,96,298.94**	-	2,93,038.00	**2,93,038.00**
XV) Other Professional Fees	-	12,12,887.00	**12,12,887.00**	-	5,89,210.00	**5,89,210.00**
TOTAL	-	**3,43,95,063.10**	**3,43,95,063.10**	-	**2,67,45,034.25**	**2,67,45,034.25**

SCHEDULE- 18: TRANSPORTATION EXPENSES

PARTICULAR	FY 2022-23			FY 2021-22		
	Plan	Non Plan	Total	Plan	Non Plan	Total
1. Vehicles (Owned by Institutions)						
A) Insurance Expenses	-	2,18,022.00	2,18,022.00	-	2,26,362.00	**2,26,362.00**
B) Running Expenses (Fuel)	-	4,31,699.00	4,31,699.00	-	1,79,696.00	**1,79,696.00**
C) Vehicles Repairs & Maintenance	-	2,80,017.00	2,80,017.00	-	1,02,521.00	**1,02,521.00**
2. Vehicles Hiring Expenses	-		-	-		-
Total	**-**	**9,29,738.00**	**9,29,738.00**	**-**	**5,08,579.00**	**5,08,579.00**

SCHEDULE- 19: REPAIRS & MAINTENANCE

PARTICULAR	FY 2022-23			FY 2021-22		
	Plan	Non Plan	Total	Plan	Non Plan	Total
1. Annual Maintenance Cost						
a) AMC of Others	-	57,18,469.63	**57,18,469.63**	-	13,10,479.00	**13,10,479.00**
b) AMC of Photocopier	-	-	-	-	-	-
c) AMC of Water Purifiers	-	1,70,520.00	**1,70,520.00**	-	1,43,274.00	**1,43,274.00**
d) AMC of DG Set		-	-		47,200.00	**47,200.00**
2. Building Maintenance (Civil)	-	12,16,306.00	**12,16,306.00**	-	13,32,477.00	**13,32,477.00**
3. Cleaning Material & Services	-	28,637.00	**28,637.00**	-	1,61,078.00	**1,61,078.00**
4. Computer Maintenance	-	20,380.00	**20,380.00**	-	43,807.00	**43,807.00**
5. Electrical Maintenance	-	8,51,947.00	**8,51,947.00**	-	15,55,589.00	**15,55,589.00**
6. Furniture & Fixtures Maintenance	-	3,70,953.00	**3,70,953.00**	-	5,27,447.00	**5,27,447.00**
7. Office Equipments Maintenance	-	27,945.00	**27,945.00**	-	3,93,009.00	**3,93,009.00**
8. Repair & Maintenance-Others	-		-	-	41,535.00	**41,535.00**
9. Provision Write-off	-		-	-	(10,76,856.00)	**(10,76,856.00)**
10. Plant & Machinery Maintenance	-	9,93,395.00	**9,93,395.00**	-	6,05,828.00	**6,05,828.00**
Total	**-**	**93,98,552.63**	**93,98,552.63**	**-**	**50,84,867.00**	**50,84,867.00**

MANMOHAN SINGH & CO. RANCHI Chartered Accountants

NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

HATIA, RANCHI - 834 003

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED ON 31ST MARCH, 2023

RECEIPTS	Sch. No.	Current Year 2022-23	Previous Year 2021-22	PAYMENTS	Sch. No.	Current Year 2022-23	Previous Year 2021-22
I. Opening Balances				**I. Expenses**			
A) Cash Balances			30.00	**1. Non Plan Expenses**	29		
B) Bank Balances				1. Staff Payments & Benefits(Est. Expenses)		21,03,73,516.00	15,41,84,951.00
In Savings Accounts				2. Academic Expenses		1,33,375.00	34,53,436.00
SB A/c No. 2730101006939 (IRG)		2,92,40,305.28	3,39,54,957.00	3. Administrative and General Expenses		8,93,378.16	7,41,76,244.69
Canara Bank online A/c. 2730101012610		21,75,388.17	12,78,316.00	4. Transportation Expenses		59,950.00	2,26,362.00
SB A/c No. 2730101009959 (IDF)		-	-	5. Repair & Maintenance		-	1,08,289.00
Canara Bank SB A/c No. 2730101012031 (Escrow A/c)		63,553.00	-				
Canara Bank SB A/c No. 2730101011451(OH-31)		3,82,39,741.75	5,07,28,264.02	**II. Payments Against Sponsored Projects**	31A	1,96,756.00	9,33,569.00
Canara Bank SB A/c No. 2730101011452(OH-36)		5,78,81,468.83	4,79,04,567.50				
Canara Bank SB A/c No. 2730101011453(OH-35)		1,52,98,033.00	19,44,504.00	**III. Payments Against Sponsored Fellowship/Scholarhip**	30B	7,68,000.00	10,03,200.00
Canara Bank SB A/c No. 2730101011923(SERB Project I)		11,323.00	1,73,281.00				
Canara Bank SB A/c No. 2730101012032 (Principal A/c)		1,63,72,148.00	1,59,07,334.00	**IV. Expenditure on Fixed Assets**			
Canara Bank SB A/c No. 2730101012429(SERB Project II)		60,53,326.00	43,58,368.00	**1. Plan Fixed Assets**	31	76,65,716.00	60,57,300.00
Canara Bank SB A/c No. 2730101012033 (Escrow A/c.)		2,770.00	65.00				
Canara Bank SB A/c.No.2730101001031 (Allumni Cell)		46,921.40	45,585.40	**2. Non Plan Fixed Assets**		-	-
SBI online Account-38979437865		30,18,107.88	26,565.14				
II. Grants Received				**V. Interest on Loan of Employees/Staff**			-
From Government of India(MOE)							
1.Plan Grant (OH-35)		11,35,00,000.00	8,30,00,000.00	**VI. Loans, Advances and Deposits**	32	9,30,13,875.00	3,71,89,676.00
2.Non Plan Grant (OH-31 and OH-36)		36,42,00,000.00	35,20,00,000.00				
				VII. Other Payments	33	26,20,92,643.80	25,06,49,464.88
III. Academic Receipts	25						
1. Academic		2,96,04,667.00	1,07,95,550.00	**VIII. Loan From HEFA**		3,08,20,000.00	
2.Examination		5,01,100.00	4,46,600.00				
3.Other Fees		2,17,34,892.00	1,08,86,206.00	**IX. Current Assets**			
				Term Deposit		-	-
IV. Receipts Against Sponsored Projects	3-I	6,70,141.00	40,62,296.00	Allumni Fund Investment			-
				TDS Receivable			-
V. Receipt Against Sponsored Fellowship/Scholarship	3-II	52,60,225.00	30,26,800.00				

				X. Closing Balances			
VI. Interest Received on				A) Cash Balances		110.00	
1. On SB Accounts		13,42,626.00	-	B) Bank Balances			
2. On Loans & Advances		24,820.00	66,830.00	In Savings Accounts			
3. On Term Deposits		-	-	Canara Bank SB A/c No. 2730101006939 (IRG)		9,38,65,007.80	2,92,40,305.28
4. On SB Accounts(Plan)		-	-	Canara Bank online A/c. 2730101012610		11,70,817.61	21,75,388.17
				HDFC Online Fees A/c.(50100537085095)		34,31,408.00	-
VIII. Other Income				SBI (FLC) A/c.-41773834634		1,00,000.00	-
1. Other Income	26	2,21,56,385.16	83,70,275.09	Canara Bank SB A/c No. 2730101011451(OH-31)		3,11,10,731.75	3,82,39,741.75
				Canara Bank SB A/c No. 2730101011452(OH-36)		4,33,11,011.83	5,78,81,468.83
IX. Miscellaneous receipts including Liability	27	6,95,34,491.36	6,02,06,454.00	Canara Bank SB A/c No. 2730101011453(OH-35)		1,43,69,164.00	1,52,98,033.00
				Canara Bank SB A/c No. 2730101011923(SERB Project I)		2,367.00	11,323.00
X. Deposits & Advances	28	74,67,405.00	41,21,734.73	Canara Bank SB A/c No. 2730101012032 (Principal A/c)		14,82,937.00	1,63,72,148.00
				Canara Bank SB A/c No. 2730101012429(SERB Project II)		29,62,935.00	60,53,326.00
XI.Earmarked Fund		1,375.00	30,80,996.00	Canara Bank SB A/c No. 2730101012033 (Escrow A/c.)		3,442.00	2,770.00
				Canara Bank SB A/c.No.2730101001031 (Allumni Cell)		48,296.40	46,921.40
				Canara Bank SB A/c No. 2730101012031 (Escrow A/c)		65,416.00	63,553.00
				SBI Online Account -38979437865		64,60,359.48	30,18,107.88
TOTAL		80,44,01,213.83	69,63,85,578.88	TOTAL		80,44,01,213.83	69,63,85,578.88

For M/s Manmohan Singh & Co.
Chartered Accountants

MANMOHAN SINGH & CO. RANCHI Chartered Accountants

P' Sharma
(Partner)
M.NO. 402655

Deputy Registrar
राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान, राँची-3
National Institute of Advanced Manufacturing Technology, Ranchi-3

Registrar
कुलसचिव
Registrar
राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान, राँची-3
National Institute of Advanced Manufacturing Technology, Ranchi-3

Director
निदेशक
Director
राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान, राँची-3
National Institute of Advanced Manufacturing Technology, Ranchi-3

SCHEDULE - 25: ACADEMIC RECEIPTS

PARTICULARS	AMOUNT
1. Academic	
a. Admission Fee	17,100.00
b. Application Fee	1,38,769.00
c. Computer Fee	8,82,860.00
d. Grade Card Fee	5,400.00
e. Library Access Fee	8,84,500.00
f. Registration/Enrolment Fee	1,94,800.00
g. Seat Rent	16,83,000.00
h. Tuition Fees	2,57,98,238.00
(1) Sub Total	**2,96,04,667.00**
2.Examination Fees	
a. Examination Fees-Institute	4,45,200.00
b. Examination Fees-Ranchi University	3,000.00
c. Examination Fees(Jharkhand Technical University)	52,900.00
(2) Sub Total	**5,01,100.00**
3. Other Fees	
a. Fine & Penalties	83,692.00
b. Gymkhana Fee	2,64,750.00
c. Hostel Fees	7,200.00
d. Hostel Establishment Charges	35,52,000.00
e. Internet Access Fee	2,65,150.00
f. Medical Fee	4,86,000.00
g. Exam Paper Evaluation Fees	100.00
4. Admission Fees from CSAB 2022	1,67,61,000.00
5. CCMT 2022	3,15,000.00
(3) Sub Total	**2,17,34,892.00**

MANMOHAN SINGH & CO. RANCHI Chartered Accountants

SCHEDULE - 26: OTHER INCOME

PARTICULARS	AMOUNT
1. Other	
a. Bus Charges Recovery	2,68,798.00
b. Certificate/Transcript verification fees	51,000.00
c. Misc. Receipts (sale of Tender Form etc.)	19,748.16
d. RTI Fees	200.00
e. Mess Fees	2,05,72,525.00
f. Recruitment Fees	1,33,900.00
2. Income from Land & Building	
a. Electricity charges Recovered	2,22,293.00
b. Rent Recovered	2,83,780.00
c. Licence Fees	5,93,193.00
d. Water Charges Recovery	1,348.00
e. Rent of Cafetaria	9,600.00
TOTAL	**2,21,56,385.16**

MANMOHAN SINGH & CO. RANCHI Chartered Accountants

SCHEDULE - 27: MISCELLANEOUS RECEIPT INCLUDING LIABILITIES	
PARTICULARS	**AMOUNT**
1. Deposit From Staff	-
2. Deposit From Student	
a. Caution Money	2,65,500.00
3. Statutory Liabilities	
a. GPF Deduction from Salary	1,73,57,200.00
b. GIS Premium	23,250.00
c. LIC Premium	11,03,711.00
d. New Pension Scheme (Employees Contribution)	45,67,373.00
e. New Pension Scheme (Employers Contribution)	63,94,326.00
f. Professional Tax on Salary	1,81,700.00
g. TDS Payable U/sec. 192A	2,54,98,574.00
h. TDS Payable U/sec. 194C	50,493.00
i. TDS Payable U/sec. 194J	1,800.00
j. CGST TDS 1%	23,587.50
k. SGST TDS 1%	23,587.50
l. IGST TDS 2%	18,915.00
4. Other Current Liability	
i. Indian Statistical Institute	46,260.00
ii. NIFFT Alumni Association	18,000.00
iii. Amount Received From Unidentified Person	49,98,351.25
iv. Expense Payable	30,04,748.00
v. Interest transferable to MOE	19,22,446.00
x. Amount Received from AICTE	2,25,500.00
xi. Amount Received from JUT (Conduct Examination)	2,29,000.00
xii. LIC Claim (R K Mishra)	46,353.00
xiii. Tequip Account Fund	7,02,929.11
5. Deposit-Others	
i. Earnest Money	27,60,800.00
ii. Performance Security	70,087.00
TOTAL	**6,95,34,491.36**

SCHEDULE - 28: DEPOSIT & ADVANCES

PARTICULARS	AMOUNT
1. Advance to Supplier	
a. Advance to CPWD	37,40,000.00
2. Advance to Employees (Interest Bearing)	
a. Car/Motorcycle/Scooter Advance	4,000.00
b. Computer Advance	73,800.00
3. Advance to Employees (Non Interest Bearing)	
a. Expenses Advance	5,22,331.00
b. Leave Travel Concession Advance	2,62,493.00
c. Medical Advance	2,40,000.00
d. Rolling Advane	31,235.00
e. Travelling Advance	84,633.00
f. CPDA Advance	1,19,663.00
4. Claim Receivable	
a. Amount Receivable from S.N .Singh	14,000.00
b. Custom Duty Payable against HEFA Loan	23,75,250.00
TOTAL	**74,67,405.00**

MANMOHAN SINGH & CO. ★Chartered Accountants★ RANCHI

SCHEDULE - 29: NON-PLAN EXPENSES

PARTICULARS	AMOUNT
1. Academic Expenses	
a. Examination Expenses (OH-31)	36,925.00
b. Payment to Visiting Faculty	2,250.00
l. Examination Expenses (JUT)	20,000.00
m. Examination Expenses (RU)	74,200.00
(1) Sub Total	**1,33,375.00**
2. Administrative General Expenses	
a. Communication	68,663.20
b. Admin Function/Events	2,50,000.00
c. Others Administrative Expenditure	5,74,714.96
	8,93,378.16
3. Repair & Maintenance	
(3) Sub Total	-
4. Staff Payments & Benefits (Est.Expenses)	
a. Allowances & Bonus	
b. Children Education Allowance	11,19,000.00
c. Payment to Adhoc Staff	57,709.00
d. Retirement & Terminal Benefits	6,53,21,690.00
e. Salaries & Wages	14,37,57,860.00
f. Telephone Facility	1,17,257.00
(4) Sub Total	**21,03,73,516.00**
5. Transportation Expenses	
a. Vehicles(Owned by Institution)	59,950.00
(5) Sub Total	**59,950.00**
TOTAL	**21,14,60,219.16**

MANMOHAN SINGH & CO. Chartered Accountants RANCHI

SCHEDULE - 30: PAYMENT AGAINST SPONSORED PROJECT AND FELLOWSHIP/SCHOLARSHIP

A. RECEIPT AGAINST SPONSORED PROJECT	
PARTICULARS	**AMOUNT**
i) AICTE-Atal FDP Workshop	1,03,000.00
ii) Project-Science & Engineering Research Board(S.Basu)	20.00
iii) Project-Science & Engineering Research Board (P.S.Mondal)	29,732.00
iv) Project-Science & Engineering Research Board (D.Roy)	24,849.00
v) AICTE Project (D Roy)	24,544.00
vi) Project-Science & Engineering Research Board (A.K.Pramanik)	14,611.00
TOTAL	**1,96,756.00**

B. RECEIPT AGAINST SPONSORED FELLOWHIP/SCHOLARSHIP	
PARTICULARS	**AMOUNT**
i) Govt. of India SC/ST Scholarship	7,68,000.00
TOTAL	**7,68,000.00**

SCHEDULE - 31: PLAN FIXED ASSETS

PARTICULARS	AMOUNT
i. Capital Work in Progress	61,65,716.00
II. HEFA Interest Payment 4th Qtr	15,00,000.00
TOTAL	**76,65,716.00**

SCHEDULE - 32: LOANS, ADVANCES & DEPOSITS

PARTICULARS	AMOUNT
1.Advance & Other Amount Receivable in cash/kind	
a. Advance to Suppliers	8,15,68,455.00
b. Institute Activities	2,00,000.00
2.Advance to Employees (Non Interest Bearing)	
a. Expenses Advance	45,34,534.00
b. Leave Travel Concession Advance	11,98,130.00
c. Medical Advance	2,00,000.00
d. Rolling Advance	4,68,628.00
e. Travelling Advance	2,20,546.00
f. CPDA Advance	11,17,021.00
3.Claim Receivable	
a. Amount Receivable from Ankit Sharma	200.00
b. Amount Receivable from Vikash Kumar (CCC)	100.00
4.Deposits	
a. Fixed Deposit (FLC)-140048019952	30,00,000.00
b. Security Deposit with Jharkhand Electricity Board	5,06,261.00
TOTAL	**9,30,13,875.00**

SCHEDULE - 33: OTHER PAYMENTS

PARTICULARS	AMOUNT
1.Deposit from Staff	
a. P Talukdar With Held Amount	2,00,000.00
2.Deposit-Other	
a. Earnest Money	13,04,300.00
3.Deposit From Students	
a. Caution Money	20,76,050.00
4.Other Current Liabilities	
a. Expneses Payable	18,73,79,348.00
b. Amount payable to Manoj Kumar	65,491.00
c. Amount Payable to P Talukdar	2,02,962.00
d. Indian Statistical Institute	9,900.00
e. Interest Transferable to MOE	1,74,95,792.00
5.Statutory Liabilities	
a. GPF Deduction from Salary	1,73,57,200.00
b. GIS Premium	23,250.00
c. LIC Premium	11,03,711.00
d. New Pension Scheme(Employees Contribution)	37,71,233.00
e. New Pension Scheme(Employers Contribution)	52,79,723.00
f. TDS Payable 92A	2,33,48,569.00
g. TDS Payable 94C	9,69,635.00
h. TDS Payable 94J	2,83,489.00
j. CGST TDS 1%	3,20,230.00
k. IGST TDS 2%	3,90,184.00
l. Professional Tax on Salary	1,88,546.80
m. SGST TDS 1%	3,20,230.00
n. TDS Payable 94I	2,800.00
TOTAL	**26,20,92,643.80**

NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY
HATIA, RANCHI-834003

BANK RECONCILIATION STATEMENT AS ON 31.03.2023

1) CANARA BANK SB A/C NO. 2730101006939 (NON PLAN A/c)

	Particulars	Amount
	Balance as per Cash Book as on 31.03.2023	**9,38,65,007.80**
Add:	Amount credited in cash book but not debited in Pass Book (Anx-ii)	29,52,405.99
Less:	Amount debited in cash book but not credited in Pass Book (Anx-ii)	4,54,40,914.00
	Amount credited in cash book but not debited by Bank	38,180.00
	Amount debited by bank but not credited in cash book.	32,000.00
	Balance as per Ledger as on 31.03.2022 (After Calculation)	5,13,82,679.79
	Balance as per Bank Statement as on 31.03.2023	**5,13,82,679.79**
	Difference	-

2) CANARA BANK SB A/C NO. 2730101011451

	Particulars	Amount
	Balance as per Cash Book as on 31.03.2023	**3,11,10,731.75**
Add:	Amount credited in cash book but not debited in Pass Book (Anx-ii)	3,80,54,509.00
Add:	Amount Credited in Pass Book but not debited in Cash Book	29,950.29
Less:	Amount debited in cash book but not credited in Pass Book (Anx-ii)	48,418.00
Less:	Amount debited in Pass Book but not credited in cash book	764.00
	Balance as per Ledger as on 31.03.2022 (After Calculation)	6,91,46,009.04
	Balance as per Bank Statement as on 31.03.2023	**6,91,46,009.04**
	Difference	-

3) CANARA BANK SB A/C NO. 2730101011452

	Particulars	Amount
	Balance as per Cash Book as on 31.03.2023	**4,33,11,011.83**
Add:	Amount credited in cash book but not debited in Pass Book	**1,51,22,501.00**
Add:	Amount Credited in Pass Book but not debited in Cash Book	**22,512.00**
Less:	Amount debited in cash book but not credited in Pass Book	**71,201.00**
Less:	Amount debited in Pass Book but not credited in cash book	**25,379.00**
	Balance as per Ledger as on 31.03.2023 (After Calculation)	**5,83,59,444.83**
	Balance as per Bank Statement as on 31.03.2023	**5,83,59,444.83**
	Difference	-

4) CANARA BANK SB A/C NO. 2730101011453

	Particulars	Amount
	Balance as per Cash Book as on 31.03.2023	**1,43,69,164.00**
Add:	Amount credited in cash book but not debited in Pass Book	**3,13,15,591.00**
	Amount Credited in Bank Statement but not debited in Cash Book	**14,065.00**
	Amount debited in cash book but not credited in bank statement	**1,800.00**
	Amount debited in bank statement but not credited in cash book	**4.00**
	Balance as per Ledger as on 31.03.2023 (After Calculation)	**4,56,97,016.00**
	Balance as per Bank Statement as on 31.03.2023	**4,56,97,016.00**
	Difference	-

5) CANARA BANK SB A/C NO. 2730101012429 (SERB Project II)

	Particulars	Amount
	Balance as per Cash Book as on 31.03.2023	**29,62,935.00**
Add:	Amount Credited in Pass Book but not debited in Cash Book	**31,786.00**
Less:	Amount debited in Pass Book but not credited in cash book	**8,230.00**
	Balance as per Ledger as on 31.03.2023 (After Calculation)	**29,86,491.00**
	Balance as per Bank Statement as on 31.03.2023	**29,86,491.00**
	Difference	-

MANMOHAN SINGH & CO. RANCHI Chartered Accountants

6) CANARA BANK ONLINE A/C NO. 2730101012610

	Particulars	Amount
	Balance as per Cash Book as on 31.03.2023	**11,70,817.61**
Add:	Amount credited in cash book but not debited in Pass Book	**44,116.12**
Add:	Amount Credited in Pass Book but not debited in Cash Book	**1,62,275.00**
Less:	Amount debited in Pass Book but not credited in cash book	**6,36,407.93**
	Balance as per Ledger as on 31.03.2023 (After Calculation)	**7,40,800.80**
	Balance as per Bank Statement as on 31.03.2023	**7,40,800.80**
	Difference	-

7) SBI ONLINE A/C NO. 38979437865

	Particulars	Amount
	Balance as per Cash Book as on 31.03.2023	**64,60,359.48**
Add:	Amount Credited in Pass Book but not debited in Cash Book	**9,24,639.00**
Less:	Amount debited in Pass Book but not credited in cash book	**68,86,446.80**
	Balance as per Ledger as on 31.03.2023 (After Calculation)	**4,98,551.68**
	Balance as per Bank Statement as on 31.03.2023	**4,98,551.68**
	Difference	0.00

8) HDFC BANK -FEE A/C NO.50100537085095

	Particulars	Amount
	Balance as per Cash Book as on 31.03.2023	**34,31,408.00**
Add:	Amount Credited in Pass Book but not debited in Cash Book	**6,315.10**
Less:	Amount debited in cash book but not credit by bank	**7,46,900.00**
	Balance as per Ledger as on 31.03.2023 (After Calculation)	**26,90,823.10**
	Balance as per Bank Statement as on 31.03.2023	**26,90,823.10**
	Difference	-

NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY, RANCHI
(Formerly NIFFT)

A Centrally Funded Technical Institute Under Ministry of Education, Govt. of India

STATEMENT OF ACCOUNTS FOR GENERAL PROVIDENT FUND FOR THE FINANCIAL YEAR 2022-23

(As per Revised Formats of Financial Statements for Central Higher Educational Institutions)

Internal Auditor

M/s. Manmohan Singh & Co.
(Chartered Accountant)

Ranchi

NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

HATIA, RANCHI-834003

GENERAL PROVIDENT FUND ACCOUNT
BALANCE SHEET AS AT 31st MARCH, 2023

Previous Year 2021-22	Liabilities		Current Year 2022-23	Previous Year 2021-22	Assets		Current Year 2022-23
11,45,81,517.00	**GPF**		13,09,65,771.00	11,45,19,002.00	**Investment In Term Deposit**		11,94,07,035.00
	Opening Balance	11,45,81,517.00			2730401001627/6	1,91,47,915.00	
	Add: Subscription	1,71,31,500.00			2730401001442/12	1,93,17,021.00	
	Add: Advances Recovered	-			2730401001442/13	3,88,33,677.00	
	Less: Withdrawals	56,60,000.00			2730401001848/10	90,73,736.00	
	Less: GPF Final settlements	35,18,036.00			2730401002218/8	1,19,19,316.00	
	Add: Interest Credited	84,30,790.00			2730307000001/5	91,96,055.00	
	Closing Balance	**13,09,65,771.00**			2730401002217/8	1,19,19,315.00	
				30,64,124.75	Accrued Interest		35,76,638.00
81,40,985.13	**Interest Reserve**		54,36,238.38	11,98,686.09	TDS on FD Interest		13,38,332.09
	Opening Balance	81,40,985.13			**Cash at Bank**		
	Less: Excess of Expense over Income	27,04,746.75		39,40,689.29	Canara Bank SB A/c No. 2730101007115		1,20,80,004.29
	Closing Balance	**54,36,238.38**					
12,27,22,502.13	**Total**		**13,64,02,009.38**	**12,27,22,502.13**	**Total**		**13,64,02,009.38**

As Internal Auditor
For M/s Manmohan Singh & Co.
Chartered Accountants

CA J .P Sharma
(Partner)
M.NO. 402655

MANMOHAN SINGH & CO. RANCHI Chartered Accountants

Deputy Registrar
राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान, राँची-3
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NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

HATIA, RANCHI-834003

GENERAL PROVIDENT FUND ACCOUNT

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2023

Previous Year 2021-22	EXPENDITURE		Current Year 2022-23	Previous Year 2021-22	INCOME		Current Year 2022-23
	Interest credited to			50,94,351.14	Interest Earned on Investment		55,40,192.25
72,30,144.00	GPF Account		84,30,790.00		Interest received on FDR	51,57,061.25	
	a.Accrued Interest	83,56,330.00			Add: Interest accrued on 31.03.2023	31,91,010.00	
	b.Actual Interest Paid	74,460.00			Less: Interest Accrued on 31.03.2022	28,07,879.00	
72.00	Bank Charges		38.00				
				5,50,776.00	Interest on Saving Bank Account		1,85,889.00
				15,85,088.86	Excess of Expenditure over Income adjust		27,04,746.75
					From Interest Reserve Account		
72,30,216.00	**Total**		**84,30,828.00**	**72,30,216.00**	**Total**		**84,30,828.00**

As Internal Auditor
For M/s Manmohan Singh & Co.
Chartered Accountants

CA J .P Sharma
(Partner)
M.NO. 402655

MANMOHAN SINGH & CO. RANCHI Chartered Accountants

Deputy Registrar

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राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान, राँची-3
National Institute of Advanced Manufacturing Technology, Ranchi-3

Director
निदेशक
Director
राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान, राँची-3
National Institute of Advanced Manufacturing Technology, Ranchi-3

NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

HATIA, RANCHI-834003

GENERAL PROVIDENT FUND ACCOUNT

RECEIPT AND PAYMENT ACCOUNT FOR FINANCIAL YEAR ENDED 31st MARCH 2023

Previous Year 2021-22	RECEIPTS	Current Year 2022-23	Previous Year 2021-22	PAYMENTS	Current Year 2022-23
	Opening Balance			FD Investment	
3,65,68,947.29	Canara Bank SB A/c No. 2730101007115	39,40,689.29	2,37,17,017.00	GPF Final Settlement	35,18,036.00
			31,90,000.00	GPF Withdrawal	56,60,000.00
1,87,13,261.00	GPF Subscription	1,71,31,500.00	72.00	Bank Charges	38.00
	GPF Advance recovery				
1,24,86,195.00	FD Encashment(2730401001442/11)	-	3,75,00,000.00	FD Encashment(2730401001442/10)	-
28,599.00	Interest on FD Encashment	-			
5,50,776.00	Interest on Saving Bank Account	1,85,889.00		**Closing Balance**	
			39,40,689.29	Canara Bank SB A/c No. 2730101007115	1,20,80,004.29
6,83,47,778.29	**Total**	**2,12,58,078.29**	**6,83,47,778.29**	**Total**	**2,12,58,078.29**

As Internal Auditor
For M/s Manmohan Singh & Co.
Chartered Accountants

CA J .P Sharma
(Partner)
M.NO. 402655

MANMOHAN SINGH & CO. RANCHI Chartered Accountants

Deputy Registrar

राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान, राँची-3
National Institute of Advanced Manufacturing Technology, Ranchi-3

Registrar
कुलसचिव
Registrar
राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान, राँची-3
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Director
निदेशक
Director
राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान, राँची-3
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NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

HATIA ,RANCHI-834003

GENERAL PROVIDENT FUND ACCOUNT

DETAILS OF TERM DEPOSITS AS ON 31.03.2023

Sl.	Account Number	Date of Investment/ Reinvestment	Date of maturity	Bank	Principal	Total Interest to be Received	Accured Interest as on 31.03.2023
1	2730401001627/6	15-11-2022	30 October 2024	CANARA	1,91,47,915.00	24,72,822.00	2,99,186.00
2	2730401001442/12	26-11-2021	26 October 2023	CANARA	1,93,17,021.00	19,71,321.00	7,57,878.00
3	2730401001442/13	20-07-2022	20 July 2023	CANARA	3,88,33,677.00	23,82,972.00	11,73,748.00
4	2730401001848/10	12-02-2023	12 February 2024	CANARA	90,73,736.00	6,28,156.00	-
5	2730401002218/8	20-05-2022	20 May 2023	CANARA	1,19,19,316.00	6,44,391.00	4,80,099.00
6	2730307000001/5	27-05-2022	26 May 2023	CANARA	91,96,055.00	4,17,274.00	-
7	2730401002217/8	20-05-2022	20 May 2023	CANARA	1,19,19,315.00	6,44,391.00	4,80,099.00
Total:					**11,94,07,035.00**	**91,61,327.00**	**31,91,010.00**

MANMOHAN SINGH & CO. ★ Chartered Accountants ★ RANCHI

NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

HATIA, RANCHI-834003

Bank Reconciliation Statement as on 31.03.2023

1) CANARA BANK SB A/C NO. 2730101007115 (NIFFT GPF A/C)

Particulars	Amount
Balance as per Ledger as on 31.03.2023	1,20,80,004.29
Balance as per Bank Statement as on 31.03.2023	1,20,80,004.29
Difference	-

NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY, RANCHI
(Formerly NIFFT)

A Centrally Funded Technical Institute Under Ministry of Education, Govt. of India

STATEMENT OF ACCOUNTS FOR TECHNICAL EDUCATION QUALITY IMPOVEMENT PROGRAMME ACCOUNT FOR THE FINANCIAL YEAR 2022-23

(As per Revised Formats of Financial Statements for Central Higher Educational Institutions)

Internal Auditor

M/s. Manmohan Singh & Co.
(Chartered Accountants)

Ranchi

NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

HATIA ,RANCHI-834003

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME ACCOUNT

BALANCE SHEET AS AT 31st MARCH, 2023

SOURCES OF FUNDS	Schedule	Current Year 2022-23	Previous Year 2021-22
CORPUS/CAPITAL FUND	1	1,55,58,300.96	1,85,36,775.66
TOTAL		1,55,58,300.96	1,85,36,775.66

APPLICATION OF FUNDS	Schedule	Current Year 2022-23	Previous Year 2021-22
FIXED ASSETS	2	1,36,99,362.85	1,66,76,537.56
CURRENT ASSETS	3	1,255.00	7,05,484.11
LOANS, ADVANCES & DEPOSITS	4	18,57,683.11	11,54,754.00
TOTAL		1,55,58,300.96	1,85,36,775.67

As Interal Auditor
For M/s Manmohan Singh & Co.
Chartered Accountants

CA J .P Sharma
(Partner)
M.NO. 402655

MANMOHAN SINGH & CO. RANCHI Chartered Accountants

Deputy Registrar

Registrar
कुलसचिव

Director

राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान, राँची-3
National Institute of Advanced Manufacturing Technology, Ranchi-3

NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

HATIA ,RANCHI-834003

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME ACCOUNT

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON 31st MARCH,2022

INCOME	Schedule	Current Year 2022-23	Previous Year 2021-22
GRANTS	-	-	-
OTHER INCOME	-	-	-
TOTAL(A)		-	-

EXPENDITURE	Schedule	Current Year 2022-23	Previous Year 2021-22
OTHER EXPENSES	-	1,300.00	-
DEPRECIATION	2	29,77,174.70	29,77,174.00
TOTAL(B)		**29,78,474.70**	**29,77,174.00**
Balance Being Deficit Carried to Capital Fund		**(29,78,474.70)**	**(29,77,174.00)**

As Internal Auditor
For M/s Manmohan Singh & Co.
Chartered Accountants

CA J .P Sharma
(Partner)
M.NO. 402655

MANMOHAN SINGH & CO. ★ Chartered Accountants ★ RANCHI

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Registrar

Director

उप कुलसचिव
Dy. Registrar
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NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

HATIA, RANCHI-834003

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME ACCOUNT

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31.03.2023

Previous Year 2021-22	RECEIPTS	Current Year 2022-23	Previous Year 2021-22	PAYMENTS	Current Year 2022-23
	Opening Balances		-	**Expenses**	
1,255.00	A) Cash Balances	1,255.00		Bank Charges	1300.00
7,04,229.11	B) Bank Balances	7,04,229.11			
			1,255.00	Transferred to NIAMT IRG A/c	702929.11
-	Receipts	-	7,04,229.11		
				Closing Balances	
				A) Cash Balances	1,255.00
				B) Bank Balances	-
7,05,484.11		**7,05,484.11**	**7,05,484.11**		**7,05,484.11**

As Internal Auditor
For M/s Manmohan Singh & Co.
Chartered Accountants

CA J .P Sharma
(Partner)
M.NO. 402655

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National Institute of Advanced Manufacturing Technology, Ranchi-3

SCHEDULE - 1 - CORPUS/CAPITAL FUND

Particulars	Current Year	Previous Year
Balance at the beginning of the year	1,85,36,775.66	2,15,13,950.36
Add: Contributions towards Corpus/Capital fund	-	-
Add: Grants Received	-	-
Add: Excess of Income over Expenditure transferred from the Income & Expenditure Account	-	-
TOTAL	1,85,36,775.66	2,15,13,950.36
Deduct: Deficit transferred from Income & Expenditure Account	(29,78,474.70)	(29,77,174.70)
Balance at the year end	1,55,58,300.96	1,85,36,775.66

MANMOHAN SINGH & CO. RANCHI Chartered Accountants

SCHEDULE - 2- TEQIP FIXED ASSETS (O.B)

S.No	Assets Heads	Opening Balance	Additions	Deductions	Total	Depreciation for the Year	Closing Balance
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1	Scientific & Laboratory Equipment	1,66,76,537.55	-	-	1,66,76,537.55	29,77,174.70	1,36,99,362.85
2	Furniture, Fixtures & Fittings	-	-	-	-	-	-
	Total (C)	**1,66,76,537.55**	-	-	**1,66,76,537.55**	**29,77,174.70**	**1,36,99,362.85**

SCHEDULE- 3 - CURRENT ASSETS(OB)

Particulars	Current Year 2022-23	Previous Year 2021-22
1. cash in Hand	1,255.00	1,255.00
2. Cash at Bank	-	7,04,229.11
Total	**1,255.00**	**7,05,484.11**

SCHEDULE- 4 - LOANS & ADVANCES(OB)

Particulars	Current Year 2022-23	Previous Year 2021-22
1. M/s Ed.CIL (India) Ltd.	11,23,225.00	11,23,225.00
2. M/s NIFFT	31,529.00	31,529.00
3. National Institute of Advanced Manufacturing Technology	7,02,929.11	
Total	**18,57,683.11**	**11,54,754.00**

MANMOHAN SINGH & CO * Chartered Accountants * RANCHI

NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY
HATIA, RANCHI - 834003

SIGNIFICANT ACCOUNTING POLICIES AND NOTES ON ACCOUNTS (FY: 2022-23)

SIGNIFICANT ACCOUNTING POLICIES

GENERAL

The Financial Statement are prepared in three parts i.e. (i) Receipts and Payments Account, (ii) Income and Expenditure Account and (iii) Balance sheet along with other four subsidiary accounts of the Institute viz. NIFFT- General Provident Account, Technical Education Quality Improvement Programme-NIFFT, Ministry of Steel Technical Wing Account-NIFFT and Workshop on Excellence in Manufacturing Account-NIFFT. The Annual Accounts of the Institute for FY 2022-23 are prepared on the revised "Formats of Financial Statements for Central Higher Education Institutions" which is suggested by the Ministry of Human Resource Development, Department of Higher Education, Government of India, Shastri Bhawan, New Delhi vide No. 29-4/2012-IFD dated 17th April 2015.

SIGNIFICANT ACCOUNTING POLICIES

1. Accounting Convention:

The Annual Accounts are prepared under the historic cost convention and ongoing concern concept, unless otherwise stated, and on Accrual Method of Accounting.

2. Revenue Recognition:

(i) The Institute is funded by the Ministry of Human Resource & Development (MHRD), Govt, of India. The government releases the Grant-in-Aid under two major heads i.e., PLAN and NON-PLAN. Grant-in-aid from Government of India is accounted for in the same financial year for which it is sanctioned by the MHRD, Government of India.

(ii) The Institute, by way of its own nature/character, generates internal income. The major sources are various fees realized from students, interest earned on investments, consultancy and testing fees and other miscellaneous income. Fee from Students, Sale of Admission forms and realization against discarded/written off assets are accounted for on Cash Basis.

(iii) Interest on Savings Bank Accounts is accounted for on Cash Basis.

(iv) Interest on interest bearing advances to staff for house building, vehicles and computers are accounted for on accrual basis in the year of advance even, though the actual recovery of interest in case of house building advances starts after full repayment of principal amount.

MANMOHAN SINGH & CO. RANCHI Chartered Accountants

3. Fixed Asset & Depreciation:

(i) Fixed assets in case of assets belonging to Account are stated at cost of acquisition less accumulated depreciation thereon & impairment loss, if any. The cost includes inward

(ii) freight, customs duty, installation charges and other directly attributable expenses related to their acquisition, installation and commissioning as per Rule 292 (1) (a) of GFR.

(iii) The assets which are unserviceable condemned or out of use are written-off as per the provision given in Rule-124 of General Financial Rules (GFR). Such written-off is given effect in the Balance Sheet only after the issue of final order by the competent authority of the Institute.

(iv) Patents and copy rights, E Journals and computer software are grouped under Intangible assets

(v) Fixed assets are valued at cost less accumulated depreciation. Depreciation on fixed assets is provided on Straight Line method at the following rates. Depreciation is provided for the whole year on net additions during the year.

Land	0%	Office Equipment	7.5%
Site Development	0%	Audio Visual Equipment	7.5%
Buildings	2%	Computers & Peripherals	20%
Roads & Bridges	2%	Furniture, Fixtures & Fittings	7.5%
Tube wells & Water Supply	2%	Vehicles	10%
Sewerage & Drainage	2%	Lib. Books & Scientific Journals	10%
Electrical installation and Equipment	5%	Computer Software	40%
Plant & Machinery	5%	E-Journals	40%
Scientific & Laboratory Equipment	8%	Patents	9 Years

(vi) Depreciation is calculated annually at the end of the year.

4. Capital Work-in-Progress:

Deposit works are accounted for as Capital Work-in-Progress on the basis of inputs provided from Central Public Works Department. These are valued at cost. Running bills of contractors are also accounted for as Capital Work-in-Progress till completion. No depreciation is charged on capital work in progress. Secured advances and mobilization advances being in the nature of advances are disclosed separately under the head Loans & Advances.

5. Investments:

Investments represent amount held in the form of fixed deposit/Term Deposit with banks as per the guidelines issued by Government of India / Reserve Bank of India. No investments are made by the Institute in tradable securities. The investments are valued at cost.

6. Corpus/Capital Fund:

The excess of Income over Expenditure over income is added to the Corpus / Capital Fund and the excess of expenditure over income is deducted from Corpus/Capital Fund.

7. Foreign Currency Transactions:

Foreign Currency Transactions are accounted for at the rate of exchange prevailing on the dates of such transactions.

8. Provisions:

Known liabilities recognized up to the date of finalization of accounts are provided for.

9. Income Tax:

The Institute is exempt from Income Tax as per the Provisions of Section 10(23C)(iii)(ab) of the Income Tax Act 1961. Therefore, no provision for Income Tax is made.

10. Purchase procedure through Institute's Stores & Purchase Unit:

Payments made/cheques issued for purchase of consumable and non-consumable stocks against the confirmed Purchase Orders released by Institute's Stores and Purchase Unit are treated as final expenditure.

Deputy Registrar

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For M/s Manmohan Singh & Co.
Chartered Accountants

MANMOHAN SINGH & CO. RANCHI Chartered Accountants

CA J .P Sharma
(Partner)
M.NO. 402655

NOTES ON THE ACCOUNTS

1. As the General Provident Fund Accounts are owned by members of those Funds and not by the Institution, These Accounts were separated from the Institute Accounts from 01.04.2015. A Receipt & Payments Account, an Income & Expenditure Account (on Accrual Basis) and a Balance Sheet of the General Provident Account have been attached to the Institute Accounts.

2. SBI Bank A/c no - 36228721268 was treated as bank a/c till the F.Y. 2016-17 but from the Financial Year 2017-18, It is treated under the head Loans, Advances & Deposits. The Institute explained that the account has been closed by transferring the balance to a new SBI account.

3. Expenditure in Foreign Currency - NIL

4. In the opinion of the management, the current assets, loans, Advances and Deposits have a value on realization in the ordinary course, equal at least to the aggregate amount shown in the Balance Sheet.

5. Previous year's Figures have been regrouped /rearranged wherever found necessary.

6. TEQIP Account fund (Canara Bank A/c No. 2730201000085) has been closed and the balance has been transferred to Main IRG A/c.

7. Schedule 1 to 26 are annexed to and bears an integral part of Balance Sheet as of 31st March 2023 and Income and Expenditure account for the year ended on that date.

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For M/s Manmohan Singh & Co.
Chartered Accountants

MANMOHAN SINGH & CO. RANCHI Chartered Accountants

CA J .P Sharma
(Partner)
M.NO. 402655

Indian Audit & Accounts Department
Office of the Principal Director of Audit (Central), Lucknow
Branch Office: Ranchi, Jharkhand,
PAG Office Main Building, 5th floor, Doranda,
Ranchi-834 002

To

The Director,
National Institute of Advanced Manufacturing Technology,
Ranchi-831014.

Subject: Separate Audit Report on the accounts of National Institute of Advanced Manufacturing Technology, Ranchi for the year 2022-23.

Sir,

I enclose a Separate Audit Report (SAR) on the Annual Accounts of National Institute of Advanced Manufacturing Technology, Ranchi for the year 2022-23 for information and necessary action.

2. A copy of Separate Audit Report is also being sent to the Secretary to the Government of India, Ministry of Education, New Delhi for information and necessary action.

3. The audited Annual Accounts, Audit Report should be duly considered and adopted by the Governing Body (BOG) of the NIAMT, Ranchi in the Annual General Meeting before these are laid in the House of parliament.

4. A copy of (i) Resolution of Governing Body adopting the Audit Report with audited Annual Accounts, (ii) Date of its presentation before the House of Parliament and (iii) Annual Report of the Institute may be furnished to this office in due course for our records and onward transmission to the Comptroller and Auditor General of India, New Delhi.

5. The Hindi version of this SAR may kindly be furnished to this office within one week.

6. The receipt of this letter with enclosures may please be acknowledged.

Yours faithfully,

Encl: - As above.

Sanjay Kumar

Principal Director of Audit (Central), Lucknow

Separate Audit Report of the Comptroller & Auditor General of India on the accounts of the National Institute of Advance Manufacturing Technology, Hatia, Ranchi for the year ended 31 March 2023.

We have audited the Balance Sheet of the National Institute of Advance Manufacturing Technology, Hatia, Ranchi as of 31 March 2023 and the Income and expenditure Account and Receipts & Payments Account for the year ended on that date under Section 20(1) of the Comptroller & Auditor General's (Duties, Powers & Conditions of Service) Act, 1971 read with Section 20 (i to ii) of the Memorandum of Association of National Institutes of Advance Manufacturing Technology Society. 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 & 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 with regard to compliance with the Law & Rules & Regulations (Propriety and Regularity) and efficiency-cum-performance aspect, etc., if any are reported through the Inspection Report/CAG's Audit Reports separately.

3. We have conducted our audit in accordance with 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 disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by 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, Income & Expenditure Account and Receipts & Payments Account dealt with by this report have been drawn up in the format approved by the Government of India, Ministry of Education.

(iii) In our opinion, proper books of accounts and other relevant records have been maintained by the National Institute of Advance Manufacturing Technology (NIAMT), Hatia, Ranchi as required under Section 20 (i to ii) of the Memorandum of Association of National Institutes of Advance Manufacturing Technology Society, in so far as it appears from our examination of such books.

(iv) We further report that:

A Balance sheet

A.1 Corpus/Capital Fund (Schedule-1) - ` 131.71 crore

A.1.1 As per the format of Financial Statements for Central Higher Educational Institutions prescribed by the Ministry of Education (MoE), Capital Expenditure from Government Grant to the extent utilized is to be transferred to Capital Fund.

Scrutiny of Annual Accounts 2022-23 revealed that the Institute had incurred capital expenditure amounting to ₹ 12.79 Crore (Total Expenditure on Plan Fixed Assets ₹ 52,86,29,235 – Expenditure on New Building ₹ 40,07,58,037) from Capital Grant during the year. But, the Institute transferred ₹ 12 crore (Schedule - 1) only to the Capital Fund.

This led to the understatement of Capital Fund and overstatement of Current Liabilities by ₹ 0.79 crore.

A.2 Current Liabilities (Schedule-3) - ` 17.61 crore

A.2.1 The opening balance of the unutilized Revenue grant of the Institute as of 01.04.2022 was ₹ 9 crores including interest of ₹ 1.11 crore refundable to the Ministry which was refunded during the year. The institute earned an interest of ₹ 0.10 crore on grants during the year. The Institute received a grant of ₹ 36.42 crore from the Ministry of Education under the head revenue. Thus, the total fund available with the Institute was ₹ 44.41 crore. Out of which the Institute utilized ₹ 36.43 crore during the year. As such the Institute was required to exhibit ₹ 7.98 crore as an unutilized grant refundable to the Ministry. The institute exhibited ₹ 7.90 crore (Schedule 10) as an unutilized grant at the end of the year.

This resulted in an overstatement of current liabilities and an understatement of the Revenue fund by ₹ 0.08 crore (₹7.98 crore – 7.90 crore).

A.3 Fixed Assets (Schedule-4) - ` 121.16 crore

A.3.1 The institute has made an advance of ₹ 3.31 Crore to M/s National Informatic Centre (NIC) and posted it in Schedule 8 – Loans advances and Deposits.

After scrutiny of the ledger and other relevant records, we noticed that the Institute had paid an advance of ₹ 3.29 crore to NIC between March 2014 and March 2018 for establishing a Local Area Network (LAN) which was completed and installed in October 2018. However, the institute is still showing this as advance instead of showing it in fixed assets

This led to an overstatement of advance and understatement of fixed assets by ₹ 3.31 crore and a consequential understatement of depreciation.

This issue was raised in the Separate Audit Report on accounts for the year 2021-22, but still, no corrective measures have been taken.

A.3.2 Fixed Assets should be capitalised in the year of taking over. In case of additions to the Fixed Assets – Plan for the year 2022-23, the institute has taken handing over of assets

in the previous financial year i.e. 2021-22, but capitalised it in the next year i.e. 2022-23. Details are as under:

Sl No.	Name of fixed assets	Date of handing/ taking over	Amount (₹)	Rate Depreciation (%)	Amount of depreciation chargeable (₹)	Remarks
1	Renovation of auditorium building (Voucher No JE-117/29.11.22)	26.11.21	19892780	2 %	397855.60	Short charging of depreciation in 21-22 and overstatement of assets in 22-23
2	Construction of Integrated Building (Gym, Bank, Post office, BSNL, Security Booth & Multipurpose conference hall (Voucher No JE-116/29.11.22)	16.11.21	88933679	2 %	1778673.58	-Do-
	Total				**2176529.18**	

Thus, the depreciation of ₹ 21.77 lakh should also be charged for the financial year 2021-22 under the prior period expenditure.

This has resulted in the Overstatement of fixed assets by ₹. ₹ 21.77 lakh and also the understatement of prior period expenditure (depreciation) and consequently the overstatement of Capital Fund by ₹ 21.77 lakh.

A.3.3 The institute has purchased online UPS for ₹ 1935439 and booked it in Computer & Peripherals. This misclassification in the posting of Fixed Assets led to excess charging of depreciation amounting to ₹ 2,41,930/- as the institute charged depreciation @ 20 % in place of 7.5% and charged ₹ 3,87,088/- in place of ₹ 1,45,158/-. Thus, an excess ₹ 2,41,930/- on account of depreciation has been charged and fixed assets have been undervalued to that extent. This resulted in understatement of Fixed Assets as well as Capital Fund by Rs. 2.14 lakh

B. General

B.1 During the course of the audit of NIAMT Ranchi, the Institute has booked one bank account in the **Head – Advances and other amounts recoverable** and could not provide details (bank statement, Bank reconciliation statement etc) of the bank account i.e **SBI Online a/c no 36228721268 (Old)** having a balance of ₹ 13.10 lakh and advances made out of it. It is to be noted that this issue was raised earlier in the Separate audit Report for the year 2020-21.

B.2 As per the uniform format for Central Higher Educational Institutions, provision for liability towards gratuity payable towards leave encashment death/retirement of employees, and pension need to be accounted for on an actuarial basis, and provided up to the year-end. Actuarial valuation as of 31st March is to be conducted every year.

On scrutiny of the Annual Accounts of the National Institute of Advance Manufacturing Technology Ranchi (NIAMT) for the Year 2022-23 Schedule 15 – Staff Payment & Benefits (Establishment Expenses), it was noticed that the Institute had made provision for (i) Encashment of Leave, (ii) Payment of Gratuity and (iii) Pension on cash basis which is in contravention of AS-15 and Uniform Format of Accounts.

B.3 As per point 17 of Notes and Instructions for compilation of financial statements of Central Educational Institutions (as per Uniform format of accounts), it is necessary to prepare annual accounts for NPS funds i.e a Balance Sheet, an Income & Expenditure account (on an accrual

basis and a Receipt and Payments account and to attach it separately to the accounts of the Institution.

During the course of the financial audit of the accounts of NIAMT, (earlier NIFFT) for the year 2022-23, we noticed that no separate NPS a/c Balance sheet, Income and Expenditure account and Receipt and Payment account have been prepared.

B.4 During scrutiny of the Annual Accounts 2022-23 we noticed that an amount of ₹ 5.14 lakh had been accounted under Sundry Debtors (Schedule 7 – Current Assets) ***Annexure-2***.

These debts were in the shape of advances given to officials of the Institute and various outside entities as well and had been outstanding from 2010-11 onwards. Officials whose names appeared in the annexure are now retired and not in service. As such there are absolutely no chances to adjust the advance against these officials. This needs to be been reviewed by the Institute and steps be taken to write off the unrecoverable/unadjustable advances and to adjust the advances given to outside entities.

C. Grants-in-Aid

The Institute received Grants amounting to ₹ 47.77 crore (Capital ₹ 11.35 crore and Revenue ₹ 36.42 crore) from the Ministry of Education during 2022-23.

The interest earned on Govt. Grant was ₹ 0.19 crore (Capital – ₹ 0.09 crore and Revenue – ₹ 0.10 crore).

The unspent balance of the previous year was ₹ 33.04 crore [Capital-₹ 24.04 crore including advance to CPWD ₹ 10.39 crore, advance to NIC 3.29 crore, WIP ₹ 9.03 Crore and cash in Bank ₹ 1.33 crore and Revenue-₹ 9 crore]. This included interest refundable to the Ministry ₹ 1.75 crore (Capital - ₹ 0.64 Crore and Revenue – ₹ 1.11 crore), which was refunded during the year.

Thus, the Institute had a total fund of ₹ 79.25 crore (Capital-₹ 34.84 crore, Revenue-₹ 44.41 crore).

Out of which the Institute utilized a sum of ₹ 49.22crore (Capital-₹ 12.79 crore and Revenue-₹ 36.43 crore) leaving a balance of ₹ 30.03 crores [Capital-₹ 22.05 and Revenue-₹ 7.98 crore] as unutilized amount as on 31.03.2023.

Note - The unspent balance of the previous year has been taken from last year's SAR.

D. Management letter

Deficiencies that have not been included in the Audit Report have been brought to the notice of the Institute 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 and Income & Expenditure Account and Receipts & 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 the annexure to this Audit Report give a true and fair view in conformity with accounting principles generally accepted in India.

(a) In so far as it relates to the Balance Sheet, of the state of affairs of the National Institute of Advance Manufacturing Technology (NIAMT), Hatia, Ranchi as of 31st March 2023, and

(b) In so far 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

Place: Lucknow

Date:

Principal Director of Audit (Central)

Lucknow

Annexure

1. Adequacy of Internal Audit system:

The Internal Audit Wing has not been established in the institute. Besides, no Internal Audit Manual has been prepared. Internal audit is conducted by a CA Firm.

2. Adequacy of Internal Control System:

The internal control system in the Institute reflected deficiencies in the following areas:

- The Institute has not prepared the Internal Audit and Office Procedure of Accounting Manual. Besides, the definition and job description of the officers and staff and procedure for maintaining accounts and records have not been put in place.
- No transfer policy of the officials especially the employees have been put in place.
- No Management Reporting System exists in the Institute.
- The register of valuables has not been maintained.
- No proper procedures for checking, reconciliation, and authentication of ledgers have been designed.
- Control Register for creditors was not being maintained and Confirmation of debtors/loans & advances taken from respective parties was not obtained.
- Certificate of physical verification of Cash (₹ 110) was not produced to audit.

3. System of physical verification of Fixed Assets and Inventory

The Institute did not carry out physical verification of fixed assets as well as consumable and non-consumable items for a long time. In the absence of physical verification, the actual existence of assets could not be ascertained in the Audit. Besides, no fixed assets register was maintained by the Institute.

4. Regularity in payment of statutory dues:

The institute was regular in payment of statutory dues.

Sd/-
Dy. Director (C)

Annexure-1

(Refer to para A.2.2)

Unclaimed liabilities

Sl. No.	Items in Other Liabilities (Schedule-3)	Amount
1	Account Payable/Receivable	2,23,441
2	AICTE	1,40,000
3	Grant from CBSE Board	50,000
4	M/s Total Library Solution	92,784
5	The amount payable to Manoj Kumar	45,000
6	Amount Received From IIPC Project A/c- 2730101004765	10,99,915
7	Deposit from CBI	1,70,000
8	UG & PG Summer Examination-2020	13,920
9	**Total**	**18,35,060**

Annexure-2

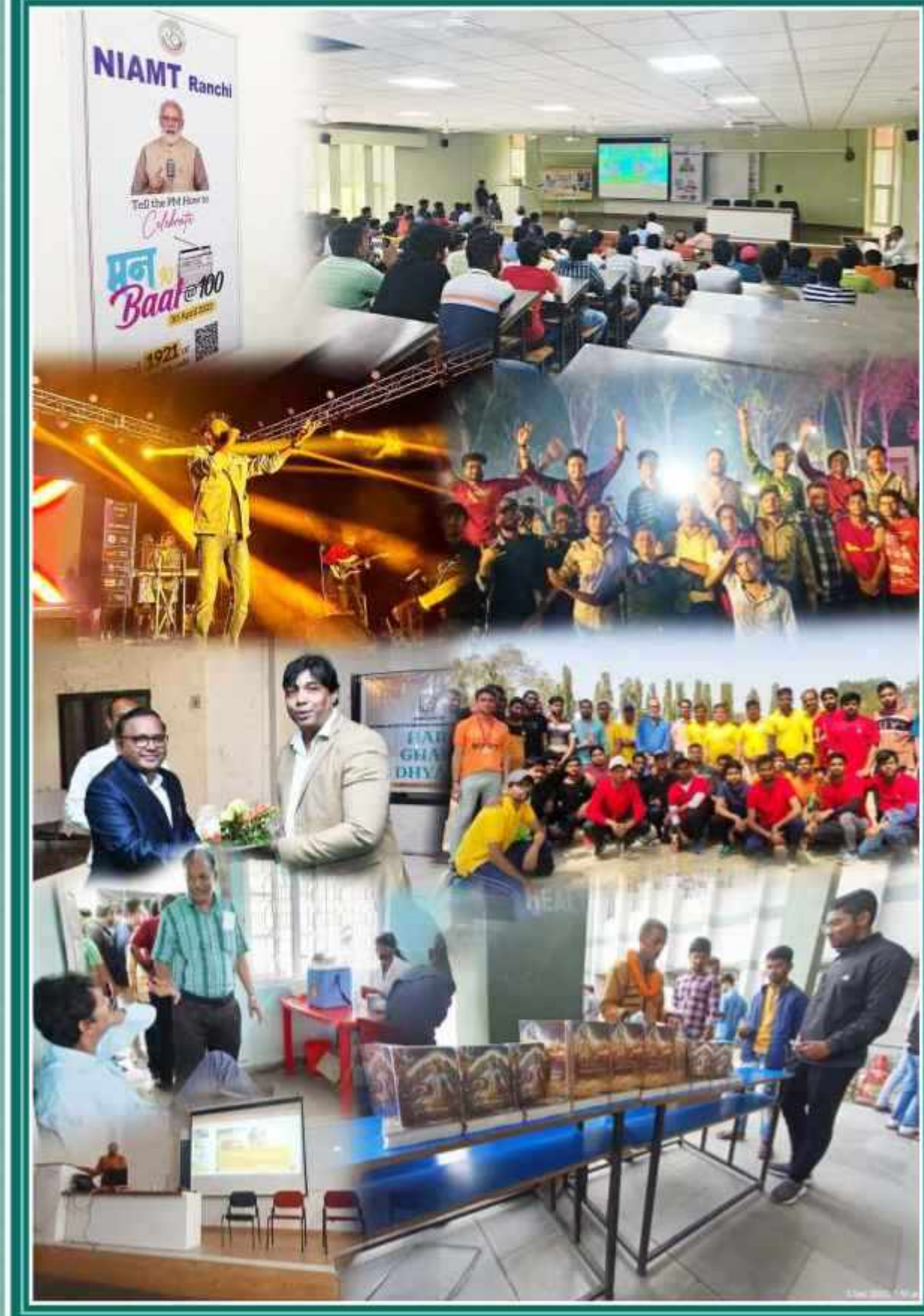
(Refer to Para A.4.1)

Details of Sundry Debtors in 2022-23

S.No.	Name of officials/entity	Head	Amount in ₹
1	D Dewanjee	HBA	69,800.00
2	S.N.L.Das	HBA	400.00
3	S.Prakash	HBA	591.00
4	Chandrashekhar	Exp. Adv.	155.00
5	K.S.Nair	Exp. Adv.	3530.00
6	S.N.L.Das	Exp. Adv.	697.17
7	S.N.Sharan	Exp. Adv.	2904.00
8	S.Prakash	Exp. Adv.	6730.19
9	V.Siwakumar	TA Adv.	500.00
10	Chandrashekhar Kumar	TA Adv.	567.00
11	S.N.L.Das		250.00
12	S.N.Sharan		2085.00
13	Bharata Hardcoke Manufacturers		27500.00
14	Bharat Sanitary		4674.00
15	Bazark Information System (V)		212871.00
16	D.A.V.P. New Delhi		10000.00
17	L/C with Canara Bank		112136.29
18	M.M.Enterprises		765.84
19	New Battery Centre		4682.00
20	Ranchi Automobiles		2360.00
21	S.K.Enterprises	Adv. to Suppliers	5623.00
22	Sundeep Hardware		1.00
23	Tiwary Bechar & Co. Ltd.		1218.19
24	Jain Traders		44112.00
			Total: 514152.68

Glimpses of Prabhat Pheri & Candle Light Program as Part of

Azadi Ka Amrit Mahotsav Celebration


NIAMT Ranchi
Tell the PM How to
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Mann Baat @100
1921