



ANNUAL REPORT

2023-24



NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

(Formerly National Institute of Foundry and Forge Technology)

Deemed to be University under Distinct Category under MoE, Govt. of India

Hatia, Ranchi – 834003 (Jharkhand)



International Womens Day



National Engineer's Day

World Aids Day



Janjatiya Diwas

Amrti Vatika

ANNUAL REPORT

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National Institute of Advanced Manufacturing Technology

(Formerly National Institute of Foundry and Forge Technology)

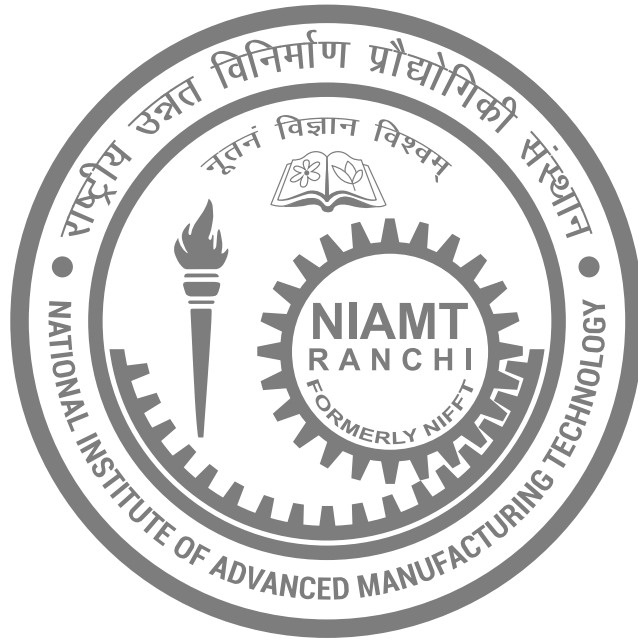
Deemed to be University under Distinct Category under MoE, Govt. of India

Hatia, Ranchi – 834003 (Jharkhand)



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PREAMBLE

About NIAMT : National Institute of Advanced Manufacturing Technology (NIAMT) (formerly NIFFT), Ranchi: The Vanguard of Manufacturing Excellence for India.

National Institute of Advanced Manufacturing Technology (NIAMT), the erstwhile National Institute of Foundry and Forge Technology (NIFFT) Ranchi, was established in 1966 by the Government of India with the assistance of UNESCO. The name of the institute was changed to National Institute of Advanced Manufacturing Technology (NIAMT) on September 2020. Further in February 2024, the Ministry of Education (MoE), Government of India (GoI) has conferred the status of Deemed to be University (under distinct category) to Institute.

NIAMT Ranchi, over the years, has evolved as an industry centric four-tier academic framework constituted by Advanced Diploma, B. Tech, M. Tech and PhD programmes in the relevant fields of study. The present academic framework of NIAMT includes the multidisciplinary feature of Advanced Manufacturing Technology involving B. Tech in Materials and Metallurgical Engineering, Mechanical Engineering, Production and Industrial Engineering, and Computer Engineering. The Doctoral program is focused on application of fundamental knowledge towards value addition in processes and products.

The students are admitted to the undergraduate and postgraduate courses, run by the Institute, through JEE mains and CCMT platforms, respectively. The Institute is completely residential with a 58 acre of lush green campus, well-equipped with academic facilities, library with ample number of printed text resources and online reading and reference materials, separate girls' and boys' hostels, residential facilities for the faculty members, officers and staff, playground and gymkhana, dispensary for medical care, and all other liveable facilities. In addition to the Government scholarship schemes, students are financially supported through merit-based scholarships scheme of the Institute.

The faculty of the Institute are recruited with high eligibility standards, at par with INIs, and are exceptional in their areas of expertise. The academic and administrative endeavours of the Institute is effectively supported by highly experienced officers and technical staff in conducting training and research at laboratories and workshop as well as conducting the activities at different administrative sections.

Its unique pedagogical focus on manufacturing technology has always been the attraction of core manufacturing industries in the recruitment of students of NIAMT across the country. The Industry Liaison Cell of NIAMT Ranchi has been catering its services according to the employment needs of the students. Besides successful careers in industries, a good number of pass-out graduates join postgraduate programs in IITs, IISc, and IIMs. Alumni of the Institute, besides leading the manufacturing industries, are serving as faculty member in IITs, NITs, IIMs and at reputed institutes abroad.

The completely residential campus encourages the students to take up various extra-curricular activities, throughout the year, like sports and cultural performance, building scientific models and racing cars for national and international events, promoting education among the less-privileged children of the locality through 'Kartavya', an NGO run by students and alumni of the Institute.

Keeping in view, the emerging need for digital competence in the manufacturing sector, the Institute has established the Centre of Excellence in Industry 4.0, in collaboration with the Software Technology Park of India, Ministry of Electronics and Information Technology, GoI, to produce the vanguards in achieving self-reliance in digital manufacturing, as well as to promote incubation of start-ups and entrepreneurship in the domain of digital manufacturing. (e.g., big data, ML, AI, IoT, etc.). In a parallel effort, the Institute has initiated the establishment of a meticulously designed Smart Manufacturing facility in collaboration with Central Manufacturing Technology Institute, Bangalore.

Besides the opportunities in the emerging areas of manufacturing technology, the Institute finds plenty of untapped opportunities in small and microscale rural artisanship and organic resource-based livelihood practices popular in the State of Jharkhand. With an aim to include these segments in holistic economic prospect, the Institute has established the inclusive Technology Business Incubation centre (a section 8 company) to promote inclusive self-reliance.

In summation, NIAMT is committed to exert its all-out endeavour to adapt, develop and disseminate the technological, translational and transformational competence with an aim to emerge as a globally visible knowledge hub in Advanced Manufacturing technology.

An International Conference: Translational Research: Metals and Materials

Event dates: 19th -21st, November 2023

Short Description of the Event:

Department of Materials and Metallurgical Engineering (MME), National Institute of Advanced Manufacturing Technology (NIAMT) organized an International Conference on Translational Research: Metals and Materials (TRMM 2023) commemorating its Silver Jubilee celebration. This International Conference was sponsored by DST-SERB, JEOL India Pvt. Ltd., GATAN-EDAX and MPME Abrasives Jasidih. TRMM 2023 concentrated on Industry 4.0 to bridge the gap between concepts of commercial scale production and smart manufacturing. At this conference, researchers, developers, and academic scholars from all over the world came together to share their learning, challenges, and opportunities for futuristic growth of the Metallurgical Ind.



From the left: Professor Binod Kumar, Head of MME Department, NIAMT, Professor Partha Protim Chattopadhyay, Director - NIAMT, Professor Gautam Sutradhar, Director - NIT-Jamshedpur, Shri Sham Arjunwadkar, Chairman, Board of Governors-NIAMT, Professor Amitabha Ghosh, Emeritus Scientist - Indian National Science Academy, New Delhi, Emeritus Professor Shiv Gopal Kapoor, University of Illinois, USA, Distinguished Emeritus Professor Marc J Madou, University of California, Irvine, USA

National Conference on Advanced Materials and its Applications (NCAMA – 2024)

Event details : 9th to 10th February 2024

The conference, NCAMA – 2024 was held at the National Institute of Advanced Manufacturing Technology (NIAMT), Ranchi on 9–10th February 2024. The conference was being organized with the aims of catering a platform for discussion of recent advances and applications in the field of advanced materials science and nanotechnology



and also furnishing a chance to researchers and scholars from around the nation to present their work and learn from the experts with many networking opportunities. The conference included key-note lecture, invited lecture, oral and poster presentations from renowned scientists and students from various parts of country. The theme of conference included Materials for Energy Storage and Conversion, Composite and Hybrid Materials, Smart and Functional Materials, Nano Materials and Nanotechnology,

Sensors, Clean Energy, Composites, Coating, Ceramic Materials, Thin films, Photovoltaics, Biomaterials and Medical Devices, Electronic, Optical and Magnetic Materials, Polymer Science and Technology, Batteries, Electrode and Electrolyte Materials, Electrochemistry and Corrosion Science, Solid state physics, MEMS and NEMS Devices and Materials for environmental remediation.

BOARD OF GOVERNORS (BoG)

1	Shri Sham H. Arjunwadkar CEO, Foundry Geomatrix and Mentor, NCTS – IIF	Chairman
Representatives from Government of India		
2	Shri Govind Jaiswal, IAS Joint Secretary, Department of Higher Education, Ministry of Education, Govt. of India Shastri Bhawan, New Delhi – 110 001	Member
3	Shri Sanjog Kapoor Joint Secretary & Financial Advisor Department of Higher Education, Ministry of Education, Govt. of India, Shastri Bhawan, New Delhi – 110 001	Member
Representatives of Ministry of Industry Government of India		
4	Shri Mohammad Isharar Ali Director, DPIIT, Ministry of Commerce and Industry, Room No.126, Vanija Bhawan, New Delhi – 110 01	Member
Representatives of All India Council for Technical Education		
5	Professor M. K. Tiwari Director, Indian Institute of Management, Mumbai, Vihar Lake Road, Powai, Mumbai – 400087.	Member
Representatives of Industries Including Public Enterprises		
6	Vacant	Member
7	Vacant	Member
8	Vacant	Member
9	Vacant	Member
10	Vacant	Member
Representatives of Technical Institutes/Engineering Profession		
11	Vacant	Member
12	Vacant	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 Rajkumar Ohdar Department of Foundry Technology, NIAMT, Ranchi	Member
16	Professor Shyam Ranjan Kumar Department of Applied Science & Humanities, NIAMT, Ranchi	
Member Secretary		
17	Professor Partha Protim Chattopadhyay Director, NIAMT	Member Secretary
Invited Members		
1.	Shri U. C. Prasad Registrar NIAMT, Ranchi Prof. Arvind Pandey Registrar Incharge	Invited Member
	(till 28/12/2023 FN)	
	(from 28/12/2023 AN)	



ADMINISTRATIVE AND FINANCE COMMITTEE (AFC)

Chairman		
1	Shri Sham H. Arjunwadkar CEO, Foundry Geometrix and Mentor, NCTS - IIF	Chairman
Representatives from Government of India		
2	Shri Govind Jaiswal, IAS Joint Secretary Department of Higher Education, Ministry of Education, Govt. of India Shastri Bhawan, New Delhi – 110 001	Member
3	Shri Sanjog Kapoor Joint Secretary & Financial Advisor Department of Higher Education, Ministry of Education, Govt. of India Shastri Bhawan, New Delhi – 110 001	Member
Representative of Ministry of Industry Government of India		
4	Shri Mohammad Isharar Ali Director, DPIIT, Ministry of Commerce and Industry Room No.126, Vanijya Bhawan, New Delhi – 110 011	Member
Representative of All India Council for Technical Education		
5	Professor M. K. Tiwari Director Indian Institute of Management, Mumbai Vihar Lake Road, Powai, Mumbai - 400087	Member
Representative of Industries including Public Enterprises		
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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 Rajkumar Ohdar Dept. of Foundry and Forge Technology, NIAMT, Ranchi	Member
16	Professor Shyam Ranjan Kumar Dept. of Applied Science & Humanities, NIAMT, Ranchi	Member
Member Secretary		
17	Professor Partha Protim Chattopadhyay Director, NIAMT, Ranchi	Member Secretary

STANDING BUILDING COMMITTEE (SBC)

1	Professor Partha Protim Chattopadhyay Director, NIAMT, Ranchi	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, 4 th Floor, 401, Mangal Tower Old H.B. Road, Ranchi.	Member
6.	Shri Amrendra Kumar Singh Senior General Manager (Civil) MECON Ltd. Ranchi – 834002	Member
7	Professor Rajkumar Ohdar Member, BoG NIAMT, Ranchi	Member
8.	Professor Shyam Ranjan Kumar Member, BoG NIAMT, Ranchi	Member
9	Professor Manoj Kumar Dean (P&D) NIAMT, Ranchi	Member
10	Shri U. C. Prasad Registrar NIAMT, Ranchi (till 28/12/2023 FN) Prof. Arvind Pandey Registrar Incharge (from 28/12/2023 AN)	Member Secretary



ACADEMIC COUNCIL

1	Professor Partha Protim Chattopadhyay, Director, NIAMT, 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 Examinations, Ranchi University	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 Kamlesh Kumar Singh, HOD (FFT), NIAMT, Ranchi	Member
13	Professor Shyam Ranjan Kumar, HOD (DASH), NIAMT, Ranchi	Member
14	Professor G Rajamohan, HOD (ME), NIAMT, Ranchi	Member
15	Dr. Madhu Kumari, HOD (ECE), NIAMT, Ranchi	Member
16	Professor Sanjay Kumar, NIAMT, Ranchi	Member
17	Professor Amitava Mandal, NIAMT, Ranchi	Member
18	Professor Niranjan Kumar Singh, NIAMT, Ranchi	Member
19	Professor Ajai Kumar Pathak, NIAMT, Ranchi	Member
20	Professor Nandita Gupta, NIAMT, Ranchi	Member
21	Professor Manoj Kumar, NIAMT, Ranchi	Member
22	Professor Arvind Pandey, NIAMT, Ranchi	Member
23	Professor Anil Kumar, NIAMT, Ranchi	Member
24	Professor Ghanshyam Das, NIAMT, Ranchi	Member
25	Professor Amitesh Kumar, NIAMT, Ranchi	Member
26	Professor Anoop Kumar Sood, NIAMT, Ranchi	Member
27	Professor Debdas Roy, NIAMT, Ranchi	Member
28	Professor Rajkumar Ohdar, Dean (Academics), NIAMT, Ranchi	Member Secretary

DEPARTMENT OF FOUNDRY & FORGE TECHNOLOGY (FFT)

About Department:

Department of Foundry Technology and the Department of Forge Technology was created in 1966 offering Advanced Diploma Courses (ADC) in Foundry and Forge Technology 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 added to reinforce the core framework of Foundry & forging technology. To be competent with the present situation, the department grew noticeably and established new areas of research in the domain. The department is having competent and highly qualified faculty members. Earlier, The Department of Foundry Technology and the Department of Forge Technology was running separately. The Foundry Department was handled by Dr. Amitesh Kumar and Forge Department was handled by Dr. Niranjn Kumar Singh. In the month of November 2022, both merged as a single Department of Foundry and Forge under the headship of Prof. Kamlesh Kumar Singh. Currently this department is running two advanced Diploma courses: Foundry Technology and 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:

S. No.	Name and Qualification	Designation
1	Dr. Niranjn Kumar Singh, B.Sc. Engg. (Mech.), M. Tech. (Foundry & Forge Tech.), Ph.D. (Ranchi University)	Professor
2	Dr. Kamlesh Kumar Singh, B. Sc. Engg. (Met.), M. Tech. (Met. Engg.), Ph.D. (IIT Kanpur), LMIFO, LMIIM, FM Institution of Engineer	Professor & Head
3	Dr. Rajkumar Ohdar, B.E. (Ind. Engg.), M. Tech. (Foundry & Forge Tech.), Ph.D. (IIT Kharagpur), LMIIM	Professor
4	Dr. Nandita Gupta B.E. (Mech.), Ph.D. (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. (IIT Kharagpur), MIIF, LMIIM, LMIFO	Professor
7	Dr. Ajit Kumar Pramanick B. Tech (Mech.), M. Tech (IIT Roorkee), Ph.D. (Jadavpur University)	Assistant Professor
8	Dr. Vineet Chak B. Tech (Mech.), M. Tech (IIT Roorkee), Ph.D. (Jadavpur University)	Assistant Professor
9	Dr. Deepak Kumar B. Tech (Mech.), M. Tech (AMU Aligarh), Ph.D. (IIT Roorkee)	Assistant Professor
10	Dr. Himanshu Khandelwal B. Tech (P&I – MBM Engineering College), M. Tech. (Metallurgy - IIT Roorkee), Ph.D. (Mechanical - IIT Bombay)	Assistant Professor
11	Dr. Kulkarni Rahul Ramesh B.E. (Mech.), M. Tech (NITK), Ph.D. (IIT Bombay)	Assistant Professor
12	Dr. Vivek S. Ayar B.E, M. Tech., Ph.D. (CHARUSAT).	Assistant Professor



S. No.	Name and Qualification	Designation
13	Dr. E. Hemachandran B. Tech, M. Tech., Ph.D. (IIT Madras)	Assistant Professor
14	Dr. Sunny Singhania B. Tech, M. Tech., Ph.D. (IIT Kanpur)	Assistant Professor
15	Dr. Anas Ahmad Siddiqui B. Tech (Mech.), M. Tech. (MST), Ph.D. (MNNIT Allahabad)	Assistant Professor
16	Dr. Pavitra Singh B. Tech, M. Tech. (IIT Guwahati), Ph.D. (IIT Guwahati)	Assistant Professor

ACTIVITIES:

Academic Activities:

Number of subjects offered by the department:

Name of Course	No. of Subjects Offered
M. Tech. Course	14
B. Tech. Course (PIE)	14
A.D.C.	24

Faculties of the department were involved in guiding Seminars and Projects of M. Tech, B. Tech, and ADC courses besides their normal classes for long term courses.

Publications

Journal Articles

1. **Ayar, V. S.,** Gajjar, D. J., & Sutaria, M. P. (2024). Effect of Mechanical Vibration on Microstructure and Mechanical Properties of AISi5Cu3 Alloy. *International Journal of Metal casting*, 18(3), 2415–2429. doi:10.1007/s40962-023-01179-3
2. **Singhania, S.,** & Law, M. (2024). Regenerative instabilities in guided metal circular sawing. *Sādhana*, 49(1), 97. doi:10.1007/s12046-024-02442-x
3. **Thirisangu, J.,** Hemachandran, E., & Subramani, K. (2023). Suspending droplets beyond the Rayleigh limit: The interplay of acoustic and gravity forces. *Physics of Fluids*, 35(12), 122012. doi:10.1063/5.0171492
4. **Yadav, I. J.,** Singh, P., & Chauhan, B. S. (2023). Numerical analysis of gas–solid hydrodynamics and heat transfer characteristics in a multi-stage fluidized bed temperature stabilizer. *Journal of Thermal Analysis and Calorimetry*. doi:10.1007/s10973-023-12783-0
5. **Agrawal, M. K.,** Singh, P., & Yadav, A. K. (2023). Experimental study of a rapid rate biofuel production in a cyclone type reactor. *Materials Today: Proceedings*, S2214785323003978. doi:10.1016/j.matpr.2023.01.313
6. **Yadav, I. J.,** Singh, P., & Chauhan, B. S. (2024). Numerical analysis of gas–solid hydrodynamics and heat transfer characteristics in a multi-stage fluidized bed temperature stabilizer. *Journal of Thermal Analysis and Calorimetry*, 149(4), 1617–1627. doi:10.1007/s10973-023-12783-0
7. **Singh, R.,** Prakash, U., Kumar, D., & Laha, K. (2023). Development of creep resistant high yttria 18Cr ferritic ODS steel through hot powder forging route. *Journal of Nuclear Materials*, 584, 154566. doi:10.1016/j.jnucmat.2023.154566
8. **Chak, V.,** & Chattopadhyay, H. (2023). Mechanical and tribological properties of ceramic–aluminium composites developed using stirring-assisted squeeze casting. *International Journal of Cast Metals Research*, 36(1–3), 65–75. doi:10.1080/13640461.2023.2207894

9. **Upadhyay, R.**, Singh, K. K., Kumar, R., Khandelwal, H., & Kumar, R. (2023). Technological Progress in Thin Wall Austempered Ductile Iron: From Manufacturing to Operation. *Journal of Experimental & Applied Mechanics*, 14(2).
10. **Kulkarni, R. R.**, Chakote, V. L., & Shevale, V. V. (2023). Comparative Study on Microstructure Evolution during Cold Forging and Warm Forging in AA6082. *Nanoworld Journal*, 9(S1). doi:10.17756/nwj.2023-s1-033
11. **Kumar, A.**, Khandelwal, H., Kumar, S., & Azad, S. K. (2023). Design Optimisation of Steel Wheel Casting Using Casting Simulation+. *Indian Foundry Journal*, 69(9), 25–31.
12. **Azad, S. K.**, Mazloun, K., Khandelwal, H., Gupta, N., & Sata, A. (2024). Optimization of the process parameters for vertical centrifugal casting of A356 by numerical simulation. *Engineering Research Express*, 6(2), 025403. doi:10.1088/2631-8695/ad36af
13. **Khandelwal, H.**, Gautam, S. K., & Ravi, B. (2024). Numerical Simulation and Experimental Validation of Fluidity of AISi12CuNiMg Alloy using Multi Spiral Channel with Varying Thickness. *International Journal of Metal casting*. doi:10.1007/s40962-024-01383-9
14. **Renuka Nanda, K. H.**, Khandelwal, H., & Ravi, B. (2024). Influence of Gating Geometry Variations on Flow Balancing of Horizontal Multi-gate Systems in Casting. *International Journal of Metal casting*. doi:10.1007/s40962-024-01372-y
15. **Gupta, Nandita**, Yadav, S., Devi, S., & Singh, B. (2023). The effect of thermodynamics in effective removal of phosphorous in steel making. *International Journal of Current Research*, 15(2), 23720–23725.
16. **Gupta, Nandita**, Khandelwal, H., Kumari, S., & Thakur, K. (2023). A study of ceramic core for geometrically complex investment casting. *International Journal of Current Research*, 15(7), 25451–25454.
17. **Gupta, Nandita**, Khandelwal, H., Kumari, S., Kumar, R., & Nayak, A. (2023). Effect of Casting Section Geometry on Stresses and Deformation by proCAST *Indian Foundry Journal*, 69(10), 21–34.
18. **Raj, M. P.**, Pramanick, A. K., & Kumar, M. (2023). Die design optimization for improvement of hot forging die life. *Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering*, 09544089231190751. doi:10.1177/09544089231190751
19. **Raj, M. P.**, Pramanick, A. K., & Kumar, M. (2024). Parametric optimization in co-axial laser powder deposition of cobalt-base alloys on DIN 1.2714 die steel. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, 238(2), 543–556. doi:10.1177/09544062231175355
20. **Raj, M. P.**, Pramanick, A. K., Biswas, P., & Kumar, M. (2024). Optimization and high-temperature wear characterization of Stellite alloy claddings developed using TIG welding on 56NiCrMoV7 die steel. *Surface and Coatings Technology*, 487, 131015. doi:10.1016/j.surfcoat.2024.131015

Book Chapters

21. **Gupta, N.**, Shahwaz, M., Singh, B., Ahmad, S. N., Priyadarshi, N., & Bhoi, A. K. (2023). Determination of Fatigue Crack Length of Rail Steels: A Recent Approach. In D. G. Y. Sheu (Ed.), *Recent Progress in Science and Technology Vol. 1* (pp. 11–19). doi:10.9734/bpi/rpst/v1/4450E
22. **Hemachandran, E.**, Singh, P., & Singh, V. K. (2024). Manufacturing Methods for Composite Materials. In V. K. Singh, N. K. Singh, & Y. Singh (Eds.), *Composites Modelling, and Manufacturing* (1st ed.)
23. **Paul, A. K.**, Prasad, A., Mahto, B., Kumar, A., & Singh, P. (2024). Introduction to bioenergy and waste to energy. In *Biodegradable Waste Processing for Sustainable Developments* (1st ed., pp. 1–33). doi:10.1201/9781003502012-1
24. **Prasad, A.**, Datta, S., De, S., Singh, P., & Mahto, B. (2024). Bioresorbable Composite for Orthopaedics and Drug Delivery Applications. In Abhishek Kumar, A. Kumar, & A. Kumar (Eds.), *Applications of Bio tribology in Biomedical Systems* (pp. 327–344). doi:10.1007/978-3-031-58327-8_12



Conference/Seminar/Symposium Proceedings & Presentations: International & National

1. **Nandita Gupta, Himanshu Khandelwal**, Naman Garg, Rahul Kumar, Ashish Nayak. 'Study of Casting and solidification of L section (EN-GJL-250) by proCAST', in "**77th Annual Technical Meeting and International Symposium on Sustainable Transformations in Metal Industry**", Organized by The Indian Institute of Metals (IIM), IIM-ATM-2023, November 22-24, 2023.
2. **Nandita Gupta, S. K. Sen**. 'Effect of Heat Treatment Parameters on the Carbide Spheroidization of 0.48% Carbon Manganese Steel' in **7th World Congress on Material Science and Engineering** (Theme Innovative developments in the field of Material Science and Engineering MATCON 2023), Valencia Spain, June 21-22, 2023.
3. **Nandita Gupta, Kamlesh Kumar Singh, Amitesh Kumar, Himanshu Khandelwal, P. P. Chattopadhyay**, Kanika Thakur, Sarita Kumari. Ashish Nayak, Santosh Kumar. 'Prospective of Al (356) alloy and SiC metal particulate reinforced metal matrix composite under the assistance of ultrasonic vibration' in "**National conference on advance materials and its applications**", Organised by Department of Applied Sciences, NIAMT, Ranchi, India, February 9-10, 2024.
4. **Ajit Kumar Pramanick**, and D Gonda. 'Effect of ceramic particle on ER4043 GTAW filler rod for welding of high strength 7010 aluminium alloy' in "**6th International Congress (IC2024) on Advancement through sustainable and green welding**", Organised by IIW-India at BIEC, Bengaluru, January 22-24, 2024.
5. **Rajkumar Ohdar**, Israr Equbal and Archana. 'Multi-response Parametric Optimization of Hot Forging of Alloy Steel: Grey-fuzzy Logic based Approach' in "THERMEC 2023: International Conference on PROCESSING & MANUFACTURING OF ADVANCED MATERIALS: Processing, Fabrication, Properties, Applications", Vienna, Austria, July 02-07, 2023.
6. **Niranjan Kumar Singh, Rajkumar Ohdar**, Randhir Kumar and Archana Kumari. 'Optimization of the Semi-solid Forging and Heat Treatment Process Parameters of A356 Aluminium Alloy' in "THERMEC 2023: International Conference on PROCESSING & MANUFACTURING OF ADVANCED MATERIALS: Processing, Fabrication, Properties, Applications", Vienna, Austria, July 02-07, 2023.
7. Md. Israr Equbal, Ahmad Saood, **Rajkumar Ohdar**, Mohammad Mukhtar Alam. 'Wear Analysis of Hot Forging Dies using Finite Element Method' in "**International Conference on Recent Advancements in Materials, Design, and Manufacturing**" at Mechanical Engineering Section, University Polytechnic, Faculty of Engineering and Technology, Aligarh Muslim University, Aligarh, India, December 23-24, 2023.
8. **Rajkumar Ohdar**, Md. Israr Equbal and Archana Kumari. 'Multi-objective Optimization of Hot Forging of Medium Carbon Micro-Alloyed Steel using Grey-Fuzzy Method' in "**International Conference on Recent Advancements in Materials, Design, and Manufacturing**" at Mechanical Engineering Section, University Polytechnic, Faculty of Engineering and Technology, Aligarh Muslim University, Aligarh, India, December 23-24, 2023.

Participation in International & National Conferences/Seminars/Symposiums/Workshops/FDPs

1. **Dr. Sunny Singhania** Participated in "AIMTDR Conference" at IIT BHU.
2. **Dr. Vineet Chak** attended a Two-weeks Faculty Development Programme on "Entrepreneurship" organized by Innovation & Incubation Centre, BIT Sindri, Dhanbad on 07, May, 2023.

3. **Dr. Kulkarni Rahul Ramesh** attended "2nd International Conference on Futuristic Advancement in Materials, Manufacturing and Thermal Sciences" organized by Institute of Infrastructure Technology, Research and Management, Ahmedabad, Gujarat on 19/01/2024.
4. **Dr. Kulkarni Rahul Ramesh** attended NEP: UGC; UGC: Malaviya Mission Teacher Training Centre (MMTTC), IIT (ISM), Dhanbad on 26/10/2023.
5. **Dr. Kamlesh Kumar Singh** was a Panellist of the conference "International Conference & Exhibition for Die Casting" Chennai on 12/03/2023.
6. **Dr. Vivek S. Ayar** attended one week Faculty Development Programme / Short Term Training Programme on "Industrial Instrumentation", Organized by NITTTR, Kolkata, from 19/02/2024 to 23/02/2024.
7. **Dr. Vivek S. Ayar** attended two-week Faculty Development Programme / Short Term Training Programme on "Advanced Pedagogy", Organized by NITTTR, Kolkata, from 15/01/2024 to 26/01/2024.
8. **Dr. Vivek S. Ayar** attended two-week NEP 2020 Orientation and Sensitization Programme under Malaviya Mission Teacher Training Programme (MM-TTP) of University Grant Commission (UGC) Organized by IIT (ISM), Dhanbad from 18/12/2023 to 30/12/2023.
9. **Dr. Ajit Kumar Pramanick** participated in the course on "NEP 2020 orientation & sensitization program under MM-TTP of UGC organized by IIT-ISM, Dhanbad from 16.02.2024 – 28.02.2024.
10. **Dr. Ajit Kumar Pramanick**, completing a course on Leadership and team building a five day training program conducted under MM-TTP, organized by IIT-Kharagpur from March 18 – 22, 2024.
11. **Dr. Vineet Chak** participated in 2nd International Conference on Recent Advances in Mathematical Sciences and Interdisciplinary Areas (RAMSIA-2023) on 22-24 June 2023 at GLA University, Mathura.
12. **Dr. Rajkumar Ohdar** participated in THERMEC 2023: International Conference on Processing & Manufacturing of Advanced Materials: Processing, Fabrication, Properties, Applications held at Vienna, Austria from July 02-07, 2023, and presented two technical papers, titled:
 - a. Multi-response Parametric Optimization of Hot Forging of Alloy Steel: Grey-fuzzy Logic based Approach
 - b. Optimization of the Semi-solid Forging and Heat Treatment Process Parameters of A356 Aluminium Alloy
13. **Dr. Rajkumar Ohdar** participated in International Conference on Recent Advancements in Materials, Design, and Manufacturing held in the Mechanical Engineering Section, University Polytechnic, Faculty of Engineering and Technology, Aligarh Muslim University, Aligarh, India from 23-24 December 2023 and presented two technical papers, titled:
 - a. Wear Analysis of Hot Forging Dies using Finite Element Method
 - b. Multi-objective Optimization of Hot Forging of Medium Carbon Micro-Alloyed Steel using Grey-Fuzzy Method

Patents:

1. **Dr. Kamlesh Kumar Singh** et al. has been granted a patent on "Key factors in enhancing inventory control in manufacturing companies using machine learning" Application no. 202311067597, publication Date: 22/12/2023.
2. **Dr. Vivek S. Ayar** has been granted a patent on "AI Based Cybersecurity Management for Industry 4.0" Application No.202341065401A. Publication Date: 06/10/2023 in The Patent Office Journal No. 40/2023 Dated 06/10/2023.



3. **Prof. Rajkumar Ohdar** et al. has been granted a Patent on "Intelligent Sensor-based Biodegradable Waste Collection Unit", Design Number – 6309583; Grant Date: September 19, 2023.

Projects:

1. **Dr. Ajit Kumar Pramanick**, SERB Sponsored project on "Development of nanostructured TiB_2 dispersed AA7010 filler rod by ARB for weld microstructure refinement under GTAW process of AA 7010 by SERB, DST", On going
2. **Dr. Ajit Kumar Pramanick**, AICTE Sponsored project on "Development of bulk nanocrystalline Cu-Nb-Zr alloys using laser assisted manufacturing for structural members of landing gears in aerospace application", On going.

Other Academic Activities and Achievements:

1. **Dr. Kulkarni Rahul Ramesh** was a member of committee for organizing "International Millet Year 2023".
2. **Dr. Kulkarni Rahul Ramesh** organized a One-Day Online National Workshop on "Recent Trends in Materials Processing and NDT" on 23/04/2023, as Co-coordinator.
3. **Dr. Kamlesh Kumar Singh** collaborated with IISSTC for developing the course structure in foundry and forge area for the 10th and 12th passed students and training the supervisor level person in foundry & forge.
4. **Dr. Himanshu Khandelwal** was appointed the Nodel Officer of the institute for collaboration of research project. He proposed the development of IIoT Enabled Vertical centrifugal casting machine for NIAMT along with Marwadi University.
5. **Dr. Himanshu Khandelwal** worked as the coordinator of NIAMT for collaboration and MoU with CMERI, Durgapur.
6. **Dr. Pavitra Singh** co-guided a PhD Thesis titled 'Design development and Performance evaluation of a fluidized bed grain-temperature stabilizer' submitted to GLA University Mathura.

Industrial services and Consultancy

Consultancy:

1. **Dr. Kamlesh Kumar Singh and Dr Amitesh Kumar** took consultancy for Development of Surgical Tools and Cluster Development for CFC Baruipur, WB.
2. **Dr. Himanshu Khandelwal**, Establishing Technology for Higher Yield of Critical Castings- CFFP, (BHEL Haridwar).

Industrial Tour/Training

1. **Dr. Kamlesh Kumar Singh** visited Central Manufacturing Technology Institute, Bangalore for CMTI- Smart foundry set up Handover.
2. **Dr. Vivek S. Ayar** delivered an expert lecture on "Basics of High pressure die casting (HPDC)" for L&T technology services ltd. Vadodara on 05/02/2024
3. **Dr. Vivek S. Ayar** delivered an expert lecture on "High pressure die casting (HPDC) Design considerations" for L&T technology services ltd. Vadodara on 06/02/2024.
4. **Dr. Vivek S. Ayar** delivered an expert lecture on "Concept of cavity fill and metal feed in high pressure die casting (HPDC)" for L&T technology services ltd. Vadodara on 08/02/2024.

5. **Dr. Himanshu Khandelwal** delivered 3 days of expert lectures at IIT Tirupati in a Certificate course on Digital Manufacturing and Automation in Foundry organized by IIF-CET and IIT Tirupati for Industries.

Administrative Assignments:

1	Dr. Niranjana Kumar Singh	Dr. N.K. Singh worked as Chairman of Library Committee and worked as members of various other Committees.
2	Dr. Manoj Kumar	Dean (P&D) Chairman, IWC
3	Dr. Kamlesh Kumar Singh	HOD of Department from 2022 till present. Member of the Library Committee Chairman of Health Centre
4	Dr. Rajkumar Ohdar	Dean (Academic), Chairman, Anti Ragging Squad, B.O.G. Member, and worked as a member in various Committee.
5	Dr. Nandita Gupta	Dean Research February 2022 onwards, Chairmen Women Cell NIAMT (Sexual Harassment Committee for women at workplace), Member HEFA Committee, Member working committee for HINDI language related matters
6	Dr. Amitesh Kumar	Course Coordinator B.Tech.
7	Dr. Ajit Kumar Pramanik	Chairman, Security Management Committee (2022-2024), Member of Anti-ragging Squad Committee (2017-2024), Member of Academic Affiliation Committee (2017-till now), Member Secretary, Student Disciplinary Committee (2022-2024)
8	Dr. Vineet Chak	Member of ILC committee, Member of Welfare/Reservation committee, Member of Gymkhana (SFU) committee.
9	Dr. Deepak Kumar	Member of CIF committee, Tabulator ADC, Member of Welfare/Reservation committee, Involved as member for faculty recruitment.
10	Dr. Himanshu Khandelwal	Member of Purchase Committee, Coordinator Centralized Computer Centre, social media Champion NIAMT, Member of Scrutiny committee for Recruitment of Assistant Professor and Associate Professor, SPOC Smart India Hackathon, Timetable Committee Member, Member Secretary of Placement and Professional Development Centre Management Committee, Member, Language and Communication Skill Development Centre Management Committee, Coordinator for Website Content Management Committee
11	Dr. Kulkarni Rahul Ramesh	Warden- M.V. Chhatrawaas, Coordinator-Advanced Diploma Courses, Members of Purchase Committee, Student Disciplinary Committee, Member of Anti-ragging squad, Member of Scrutiny committee for Recruitment of Assistant Professor and Associate Professor. Member of tabulation Committee ADC, Member of Timetable Committee.





DEPARTMENT OF MECHANICAL & MANUFACTURING ENGINEERING (ME)

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 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 2006-07, the department started doctoral research programmes leading to Ph. D 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 during 2020-21 academic session to start the B. Tech. (Mechanical Engineering) programme. Subsequently, 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, postgraduate, and doctoral 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 laboratories listed at the end of this chapter / section. Efforts are on to add newer laboratories pertaining to academic and research requirements of the department.

FACULTY:

S. No.	Name and Qualification	Designation
1	Dr. Sanjay Kumar B. Tech. (Met.), M. E. (Mech.), PhD (Ranchi Univ.), MIIF	Professor
2	Dr. Amitava Mandal B. Tech. (Mech.), M. Tech. (Prod.), PhD (IIT Delhi), MIIW	Professor
3	Dr. Ajai Kumar Pathak B. Sc. Engg. (Mech.), M. Tech. (Mech.), PhD (IIT Kharagpur), MIIW, MISTE, MIIM	Professor
4	Dr. G. Rajamohan B. E. (Mech.), M. E. (Manufacturing Tech.), PhD (IIT Madras)	Professor & HOD (from 01/10/2023)
5	Dr. Anoop Kumar Sood B. E. (Mech.), M. E. (Design), PhD (NIT Rourkela)	Professor & HOD (till 30/09/2023)
6	Dr. Krishna Kumar Verma M.Sc. (Maths.), M.Phil. (Applied Maths.), PhD (Ranchi Univ.), MIIF	Associate Professor
7	Dr. V. M. S. Hussain B. E. (Mech.), M. E. (Prod.), PhD (IIT Kharagpur), MIIF	Assistant Professor
8	Dr. Ratnakar Das AMIE (Mech.), M. E. (Prod.), PhD (IIT Guwahati)	Assistant Professor
9	Dr. Sambit Kumar Parida AMIE (Mech.), M. Tech. (Mech.), PhD (IIT Bhubaneswar)	Assistant Professor
10	Dr. Anand Mohan Murmu B. Tech. (Prod.), M. Tech. (Mfg. Sc. & Engg.), PhD (IIT-ISM Dhanbad)	Assistant Professor

S. No.	Name and Qualification	Designation
11	Mr. Subrato Kumar Soren B. E. (Mech.), M. E. (Thermal Engg.)	Assistant Professor
12	Dr. Jagesvar Verma B. Tech. (Mech.), M. Tech. (Manufacturing Tech.), PhD (VNIT Nagpur)	Assistant Professor
13	Dr. Umesh Khandey B. E. (Mech.), M. Tech. (Mech.), PhD (IIT Delhi)	Assistant Professor
14	Dr. Aruna Thakur B. Tech. (Mech.), M. Tech. (Mech.), PhD (NIT Rourkela)	Assistant Professor
15	Dr. Prasant Kumar Swain B.Tech.(Mech.), M.Tech.(Design), PhD (IIT Kharagpur)	Assistant Professor (Joined on 25/10/2023)
16	Dr. Lokeswar Patnaik B.Tech. (Mech.), M.Tech. (Manufacturing), PhD (NIT Silchar)	Assistant Professor (Joined on 07/11/2023)

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.

Publications:

Journal Articles

- 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*, S2214785323045157. doi:10.1016/j.matpr.2023.08.245
- Murmu, A. M.,** Parida, S. K., & Das, A. K. (2023). Evaluation of in-situ synthesised titania-zirconia-boron carbide composite cladding on Ti6Al4V substrate using continuous wave fibre laser. *Materials Chemistry and Physics*, 296, 127177. doi:10.1016/j.matchemphys.2022.127177
- Kumar, S., Das, R.,** & Parida, S. K. (2023). Experimental study on the quality of drilled holes in Sabai grass reinforced composites. *Materials Today: Proceedings*, S2214785323010568. doi:10.1016/j.matpr.2023.03.014
- Sahu, R. K.,** Das, R., Routara, B. C., Nayak, B. B., Sahu, S., & Das, D. (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. doi:10.1051/e3sconf/202343001290
- 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. doi:10.1108/JILT-06-2022-0020
- 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*, S2214785323021995. doi:10.1016/j.matpr.2023.04.298
- Ashvita, A. J.,** Patnaik, L., Maity, S. R., & Kumar, S. (2024). Comparative study on surface modification of heat-treated hot work tool steel using plasma nitriding and thin film deposition technique. *Materials Today: Proceedings*, S2214785324004140. doi:10.1016/j.matpr.2024.05.119
- Sharma, A.,** Pandey, K., & Sood, A. K. (2024). Surface Finish Enhancement of Si(100) with Single Pole Magnetic Abrasive Finishing using Chemical Oxidizers and Alumina Slurry. *Silicon*, 16(10), 4557–4576. doi:10.1007/s12633-024-03018-4



9. **Sharma, A.,** Pandey, K., & Sood, A. K. (2024). Fuzzy Logic Based Model to Predict Surface Roughness of Si(100) Wafer Using Preliminary Experimental Data Obtained From Single Pole Magnetic Abrasive Finishing Process. *Silicon*, 16(10), 4199–4212. doi:10.1007/s12633-024-02986-x
10. **Sharma, N.,** Swain, P. K., & Maiti, D. K. (2024). Static and dynamic control of smart damaged variable stiffness laminated composite plate with piezoelectric layers. *Mechanics Based Design of Structures and Machines*, 52(6), 3527–3551. doi:10.1080/15397734.2023.2203223
11. **Sharma, N.,** Swain, P. K., & Maiti, D. K. (2023). Uncertainty quantification in free vibration and aeroelastic response of variable angle tow laminated composite plate. *Journal of Composite Materials*, 57(17), 2645–2668. doi:10.1177/00219983231175468
12. **Pandey, P. K.,** Singh, M., Rathi, R., & Verma, J. (2023). Analysis and optimization of welding techniques for austenitic stainless steel using grey relational analysis. *International Journal on Interactive Design and Manufacturing (IJIDeM)*. doi:10.1007/s12008-023-01445-y
13. **Bansod, A.,** Shukla, S., Gahiga, G., & Verma, J. (2023). Influence of filler wire on metallurgical, mechanical, and corrosion behaviour of 430 ferritic stainless steel using a fusion welding process. *Materials Research Express*, 10(3), 036513. doi:10.1088/2053-1591/acb908
14. **Tembhurkar, C.,** Ambade, S., Kataria, R., Verma, J., & Moon, A. (2023). Cold metal transfer welding of 316L/430 dissimilar stainless-steel welds. *Anti-Corrosion Methods and Materials*. doi:10.1108/ACMM-03-2023-2774
15. **Pandey, P. K.,** Rathi, R., Singh, M., & Verma, J. (2024). Experimental analysis on microstructure, mechanical properties, and corrosion behaviour of TIG welded AISI 444 ferritic stainless steels. *Engineering Solid Mechanics*, 12(1), 93–102. doi:10.5267/j.esm.2023.6.001
16. **Parida, S. K.,** Murmu, A. M., Hari, V., Ayar, V. S., & Das, R. (2024). 3D FE adhesion failure analyses of adhesive bonded single lap joint made with functionally modulus graded curved adherends. *International Journal on Interactive Design and Manufacturing (IJIDeM)*. doi:10.1007/s12008-024-01991-z
17. **Behera, R. K.,** Parida, S. K., & Das, R. R. (2023). Effect of using fibre reinforced epoxy adhesive on the strength of the adhesively bonded Single Lap Joints. *Composites Part B: Engineering*, 248, 110358. doi:10.1016/j.compositesb.2022.110358
18. **Kumar, S.,** Das, R., & Parida, S. K. (2024). Strength evaluation of alkali treated Sabai Grass (*Eulaliopsisbinata*) fibers and its reinforced composites. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, 238(12), 5739–5751. doi:10.1177/09544062231220533
19. **Murmu, A. M.,** Parida, S. K., Das, A. K., & Kumar, S. (2023). Evaluation of laser cladding of Ti6Al4V-ZrO2-CeO2 composite coating on Ti6Al4V alloy substrate. *Surface and Coatings Technology*, 473, 129988. doi:10.1016/j.surfcoat.2023.129988

Book Chapters

1. **Kumar, S.,** Das, R., & Parida, S. K. (2023). Potential of grass families as reinforcement material in composites: A review. 050006. doi:10.1063/5.0144142
2. **Sharma, A.,** Pandey, K., & Sood, A. K. (2024). Preliminary Experimental Investigation into Work Brush Temperature on Silicon Wafer Using Single Pole Magnetic Abrasive Finishing (SPMAF). In R. Kumar, R. K. Phanden, R. K. Tyagi, & J. Ramkumar (Eds.), *Advances in Manufacturing and Materials* (pp. 569–579). doi:10.1007/978-981-97-3173-2_39
3. **Kumar, A.,** Diwan, P., Verma, J., & Kumar Sao, A. (2023). Effect of processing routes on the microstructure/ phases of high-entropy alloys. In A. Kumar, R. Chandrakar, V. Dubey, & M. Michalska-Domańska (Eds.), *High-Entropy Alloys* (pp. 67–74). doi:10.1515/9783110769470-005

Conference/Seminar/Symposium Proceedings & Presentations: International & National

1. **Dr. Anoop Kr. Sood** delivered an expert lecture at the National Workshop on 3D Printing: State-of-Art and Future Prospects (3DP-2023), organized by the Department of Mechanical Engineering, National Institute of Technology Rourkela, Topic of talk: Advances in Fused Deposition Modelling: Process Behaviour and

parametric Studies. Date 19/07/2023.

2. **Dr. Anoop Kr. Sood**, chair a session at International Conference on Translational Research: Metals and Materials, Organized by Department of Materials & Metallurgical Engineering National Institute of Advanced Manufacturing Technology, Session: Translational research in the industry 4.0 framework, including integration with IoT, Date: 21/11/2023.

Patents

1. **Dr. Anoop Kr. Sood** has been granted a patent titled "Remote-controlled sea weed cleaner", Year of award: 2023, Patent number: 437984, Patent Office, Government of India.
2. **Dr. Lokeshwar Patnaik**, Sunil Kumar, Rehmath Bazil RM, B.Karthick, Harish M, Vangara Madhavi Lata, Godavarthi Vamsi Krishna, Mediseti Suresh Chandra, Saikat Ranjan Maity, Syed Mahammad Shafi. "A Machine for Producing Mechanical Test Specimen as per ASTM Standard" Patent No. IN 519480, Date of grant: Mar 05, 2024, Intellectual property of India.
3. **Dr. Lokeshwar Patnaik**, Sunil Kumar, Saikat Ranjan Maity. "Polishing Attachments on Conventional Lathe Machine" Patent No. IN 502293, Date of grant: Jan 23, 2024, Intellectual property of India.
4. **Dr. Lokeshwar Patnaik**, Sunil Kumar, Vikram Kumar, Saikat Ranjan Maity. "Desiccant Inserting Machine for Drying Moisture Inside the Blind Hole of an Automobile Component" Patent No. IN 493864, Date of grant: Jan 1, 2024, Intellectual property of India

Other Academic Activities:

1. **Dr. Lokeshwar Patnaik**, participated in three-day faculty development program on "Wellness through Indian Knowledge system" at NIT Jamshedpur during 1st to 3rd Mar 2024.
2. **Dr. Anoop Kr. Sood** conducted a workshop on, "Building Advanced Data Analytics Applications with Cloud, Organized by AICTE-TLB Faculty Development Program (FDP), a part of the Next Gen Employability Program". In a collaboration between the Edunet Foundation and EY GDS (Ernst & Young), in partnership with AICTE. Online mode, 18-22 December, 2023.
3. **Dr. Anand Mohan Murmu** attended a 15-day Malaviya Mission teacher training programme (MM-TTP) of UGC on "NEP 2020 Orientation & Sensitization Programme" organised by IIT (ISM) Dhanbad from 16th February to 28th February 2024.

Administrative Assignments:

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





DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING (MME)

About Department:

The Materials and Metallurgical Engineering Department was established in 1998, and the department has emerged as a powerhouse for academics, scientific research and cutting-edge technologies. With time, the department has grown noticeably and established new areas of research and teaching in materials engineering, while retaining its strength in traditional areas in metallurgy. The department attracts highly qualified faculty members by virtue of its infrastructure and research environment. The department is actively involved in research by inviting experts from many nearby industries such as Tata Steels, Usha Martin, Vedanta, Murugappa and Research Institute like RDCIS, SAIL, and NML etc. A reasonable number of consultancy projects are being carried out by the department. The department of MME 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:

S. No.	Name and Qualification	Designation
1	Dr. Binod Kumar PhD (IIT Kharagpur)	Professor & HoD
2	Dr. Debdas. Roy PhD (IIT Kharagpur)	Professor
3	Dr. Ghanshyam Das PhD (IIT Bombay)	Professor
4	Dr. Banshidhar Mallik PhD (Ranchi University)	Associate Professor
5	Dr. Chinmoy Chattopadhyay PhD (IIT Kanpur)	Assistant Professor
6	Dr. Ratnesh Kr. Gupta PhD (Brown University, USA)	Assistant Professor
7	Mr. Koushik Sikdar M.Tech (IIT Kanpur)	Assistant Professor
8	Dr. Tapabrata Maity PhD (IIT Kharagpur)	Assistant Professor
9	Dr. Shweta Shukla PhD (IIT Bombay)	Assistant Professor Joining date: 29/09/2023
10	Dr. Vaishali Poddar PhD (College of Engineering, Pune / Savitribai Phule Pune University)	Assistant Professor Joining date: 29/09/2023
11	Dr. Chandra Sekhar Kommalapati PhD (IIT Bombay)	Assistant Professor Joining date: 03/01/2024
12	Dr. Riya Mandal PhD (IIT Bombay)	Assistant Professor Joining date: 09/02/2024

ACTIVITIES

Academic Activities:

Number of subjects offered by the department:

Name of Course	No. of Subjects Offered
B. Tech. (Materials and Metallurgical Engineering)	30
M. Tech. Courses (Industrial Metallurgy)	12
Ph.D.	06

Department of Materials and Metallurgical Engineering (MME), National Institute of Advanced Manufacturing Technology (NIAMT) organized a 3-day International Conference on Translational Research: Metals and Materials (TRMM 2023) commemorating its Silver Jubilee celebration during 19th – 21st November 2023. Prof. Binod Kumar worked as the Chairman and **Dr. D. Roy** worked as the Convenor of the conference.

Publications

Journal Articles:

- Kumar, N.,** Maity, T., Arora, K. S., Shajan, N., Hembrom, S., & Roy, D. (2023). 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. doi:10.1520/MPC20220068
- Shukla, S.,** Jaya, B. N., & Raja, V. S. (2023). Micro-mechanisms of deformation accommodation in AA7050 alloy in the presence of hydrogen. *Journal of Alloys and Compounds*, 947, 169596. doi:10.1016/j.jallcom.2023.169596
- Samanta, R.,** Biswas, A., Das, A., Mitra, V., Sinha, A., Roy, D., Bandyopadhyay, A. (2023). An Ancient Traditional Indian Archaeometallurgical Artefact: "Dokra". *Journal of the Institution of Engineers (India): Series D*, 104(2), 443–448. doi:10.1007/s40033-022-00441-y
- Khobragade, N.,** Maity, T., Świdarska-Środa, A., Stanislaw, G., Łojkowski, W., Babu, P. N., Roy, D. (2023). Dislocation entangled mechanisms in cu-graphene nanocomposite fabricated by high-pressure sintering. *Materials Characterization*, 195, 112524. doi:10.1016/j.matchar.2022.112524
- Das, M.,** Mishra, R., Das, P., Kashyap, S. K., Panda, S. K., Mitra, R., Tiwary, C. S. (2023). Controlled directionality in 3D printing of graphite-reinforced polymer composite with enhanced mechanical properties. *Composites Science and Technology*, 235, 109955. doi:10.1016/j.compscitech.2023.109955
- Chahar, S.,** Pal, T., Roy, D., & Maity, T. (2024). Aging-Assisted Grain Boundary Engineering and Its Impact on the Deformation Behavior in Precipitation Hardenable Multicomponent Mg-10Sn-3Al-1Si Alloy. *Journal of Materials Engineering and Performance*. doi:10.1007/s11665-024-09282-0
- Roy, D.,** Pal, T., Ajay, S., Prakash, A., Dutta, S., & Maity, T. (2024). Improving strain hardening behaviour in nano-intermetallic reinforced aluminium in-situ composites through an optimized twostep thermal processing method; sintering and uniaxial forging. *Journal of Alloys and Compounds*, 982, 173688. doi:10.1016/j.jallcom.2024.173688
- K. Chandra Sekhar,** (2024). Change in deformation mechanism to change TRIP to TWIP strengthening in the class of 304 austenitic stainless steel sheets by trapezoidal wavy-rolling process. *Advances in Materials and Processing Technologies*, 1–14. doi:10.1080/2374068X.2024.2364985
- Bakhla, M.,** Shukla, S., & Kumar, B. (2023). Effect of electrode composition over performance of dissimilar stainless-steel welds. *Materials Today: Proceedings*, S2214785323044322. doi:10.1016/j.matpr.2023.08.164
- Mallik, B.,** & Pattnaik, S. (2023). Turbo charger selection and matching criteria in a heavy-duty diesel engine useful for shipping. *International Journal of Engineering Research & Management Technology*, 10(4), 81–94.



11. **V. S. Poddar**, Eco-friendly transition metal silicide for high temperature thermoelectricity, *J Mater Sci: Mater Electron* 34, 2067 (2023). <https://doi.org/10.1007/s10854-023-11472-w>.

Book Chapters

1. **Bakhla, M.**, Yadav, A. U., Kumar, B., & Sambasiva Rao, M. (2023). Study of the Microstructure and Mechanical Behaviour of TIG Weldments Between AISI 304L and AISI 430 Stainless Steels. In A. Tewari, N. Dhawan, G. Agarwal, S. Das, S. Mishra, & A. Karmakar (Eds.), *Proceedings of the 3rd International Conference on Advances in Materials Processing: Challenges and Opportunities* (Vol. 293, pp. 41–46). doi:10.1007/978-981-99-1971-0_7
2. **Roy, D.** (2024). Fabrication of Bulk Components from Mechanically Alloyed Powders. In S. Rajendrachari & D. Chaira (Eds.), *Powder Metallurgy and Additive Manufacturing: Fundamentals and Advancements* (pp. 51–72). doi:10.31399/asm.tb.pmamfa.9781627084796

Conference/Seminar/Symposium Proceedings & Presentations: International & National

1. **Dr. Vaishali Poddar** worked as Convener – in four-day POWDER METALLURGY SHORT COURSE (PMSC-23), organized by Powder Metallurgy Association of India (PMAI) in association with Dept. of Metallurgy and Materials Science, College of Engineering Pune (COEP) and National Institute of Advanced Manufacturing Technology, Ranchi during 3rd – 6th October 2023.
2. **Dr. Vaishali Poddar** coordinated the visit of Prof. Rajeev Shekhar and Dr. Shikhar Misra from IIT Kanpur to NIAMT, Ranchi on 5th March 2024 to promote Direct Admission of B. Tech, Materials and Metallurgical Engineering Department Students to Ph.D. course at IIT Kanpur
3. International Conference on “Translational Research: Metals and materials 2023” organized by **Dr. D. Roy** as a convener for 3 day conference from 19th November to 21st November 2023 at NIAMT Ranchi.
4. Honorable Vice Chancellor of Central University of Jharkhand nominated Member as an External Expert of the Board of Studies of the Department of Metallurgy and Materials Engineering.
5. **Dr. Vaishali Poddar**, Neha Patil, Shivani Patil, Vishakha Rodge, “Influence of Material Characteristics on the Kinetics of Sodium Ion Battery” at the National Conference on Advanced Materials and its Applications (NCAMA-2024) organized by the Department of Applied Sciences and Humanities, NIAMT at NIAMT Ranchi during the period of 9th -10th February 2024.
6. **Dr. Vaishali Poddar**, N. B. Dhokey, The Broad Usage Spectrum of Thermoelectricity from Low Temperature Photovoltaic to High Temperature Furnaces: An Overview, *TRANSACTIONS OF PMAI*, VOL. 48, JUNE 2023.
7. DC Meena and **K, Chandra Sekhar** “Ceramic coating for surface protection of welding torches and iron fixtures by powdered slag compounds” published in the 4th Global ceramic leadership roundtable organized the CerAP 2024 conference dated Mar 11-12, 2024 by Centre for space science and technology, IIT Roorkee.
8. **Mallik, B.**, Paper presentation at NIAMT Ranchi (TRMM 2023) presented paper titled “Study of Synthesis and Characterization of Aluminum base in situ metal matrix Composites by Spark Plasma Sintering, in the International Conference on Translational Research: Metals and materials 2023. 19th to 21st November. Organized by Dept. Of MME NIAMT, Ranchi commemorating its 25th year of celebration.
9. **Mallik, B.**, Paper presentation and publication in proceedings, at NIT Rourkela in a National conference named Intelligent systems, IOT, and wireless communication for the society (IIWCS-2024) dt. 16/02/2024 to 17/02/2024. Name of Paper “An overview on Acoustic Emission Testing.

Patent/Project:

1. Patent: Indian: Patent No: 409157-001, Title: Silica Coated Melting Oven For Production of Metal Artifacts, Patentee: 1. Sanjoy Chattaoraj 2. Prof. (Dr.) Debdas Roy 3. Prof. (Dr.) Swarup Kumar Ghosh 4. Dr. Arijit Sinha 5. Dr. Apurba Das 6. Dr. Gurudas Mandal 7. Mr. Rahul Samanta 8. Dr. Sandip Kumar Application Date: 29/02/2024, Date of Issue: 26/04/2024
2. Patent: Indian: Patent No: 411989-001, Title: Carbon Coated Face Mask. Patentee: 1. Sanjoy Chattaoraj 2. Prof.

(Dr.) Debdas Roy 3.Prof. (Dr.) Swarup Kumar Ghosh 4.Dr. Arijit Sinha 5.Dr. Apurba Das 6.Dr. Gurudas Mandal 7.Mr. Rahul Samanta 8.Dr. Sandip Kumar Application Date: 29/03/2024, Date of Issue: 16/05/2024

3. Patent:Indian: Patent No. 496959, Title: A Process to Produce Ductile Iron (DI) Pipes with Superior Machinability and Mechanical Properties. Patentee: 1) Subhajit Mitra 2) Tanmay Bhattacharya 3) Samik Nag, 4) S.P. Sharma 5) Santanu Banerjee 6) Debdas Roy 7) P. P. Chattopadhyay Application Date: 06/12/2016, Date of Grant: 10/01/2024
4. 202431017158 (TEMP/E-1/21403/2024-KOL), 10 March 2024, V. S. Poddar, D. Roy, A Powder Extrusion Machine.

Achievement:

1. Prof.K.B.Das., Honorable Vice Chancellor of Central University of Jharkhand nominated Member as an External Expert of the Board of Studies of the Department of Metallurgy and Materials Engineering Contribution (From 5th January to 12th May-2023)
2. Following students of B.Tech. (2020-2024) of the MME Department secured AIR ranking in GATE – 2024:
 - 1) Swarup Kongar- AIR 23
 - 2) Aditya Roy- AIR 35
 - 3) Deep Raj- 51
 - 4) Tanwesh Kumar- AIR 147

Seminars/Conferences/ Program Organized:

1. **Dr. Vaishali Poddar** worked as Coordinator in three-day campaign of Mera Pehla Vote 2024 organized by National Institute of Advanced Manufacturing Technology (NIAMT) from 4th March to 6th March 2024 to spread awareness of importance of voting in and around the NIAMT campus.
2. **Dr. Vaishali Poddar** worked as Coordinator in the International Women's Day celebration on 19th March 2024 organized by National Institute of Advanced Manufacturing Technology (NIAMT) Ranchi.

Award /honour received:

1. **Dr. Vaishali Poddar** honored with a contribution award at the International Conference on Powder Metallurgy (PM 24) organized by Powder Metallurgy Association of India (PMAI) during 25th – 28th February 2024.

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

1. **Dr. Vaishali Poddar** completed SWAYAM-NPTEL Course on Carbon Materials and Manufacturing spanning to 12 weeks

Invited Talk:

1. **Dr. Vaishali Poddar** delivered an invited talk on: "Powder Characterization", in POWDER METALLURGY SHORT COURSE (PMSC-23), organized by Powder Metallurgy Association of India (PMAI) in association with Dept. of Metallurgy and Materials Science, College of Engineering Pune (COEP) and National Institute of Advanced Manufacturing Technology (NIAMT), Ranchi during 3rd – 6th October, 2023.

Administrative Assignments:

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





DEPARTMENT OF APPLIED SCIENCES AND HUMANITIES

About Department

The department is an integral part of the Institution, supporting all the branches of engineering by offering courses on basics science and humanities. The department comprises faculty members with the specialization in Physics, Chemistry, Mathematics, Environmental Engineering, Electrical Engineering, Electronics Engineering and English communication. Appreciable number of research publications in leading National and International Journals has been produced to the credit of department. It provides excellent laboratory facilities for both undergraduate and post graduate students. It also provides wide spectrum of Digital Electronics, Analog Electronics, Microprocessor, Control system, Electrical Machine, Electronics, Physics, Chemistry, Instrumentation, Environmental Engineering etc, laboratories. Apart from this, students are engaged in different projects of national and international collaboration. The department has started two years full-time course in M.Tech (Environmental Engineering) in 2007 to cater the specific requirement of industries. It also facilitates the post graduate students of Environmental Engineering to augment the research and consultancy facilities in this emerging field. DASH is the fundamental department that stands tall in developing scientific (basic and engineering) temperament among the budding engineers along with required elements of Humanities.

Faculty:

S. No.	Name and Qualification	Designation
1	Dr. Shyam Ranjan Kumar Ph. D.in 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	Dr. Partha Sarathi Mondal, Ph. D (Physics)	Assistant Professor
6	Dr. Subhankar Basu M. Tech. (Environmental Engineering) Ph. D (Bioscience Engg.)	Assistant Professor
7	Dr. Sriparna Chattopadhyay Ph. D (Mathematics)	Assistant Professor
8	Dr. H. Vignesh Babu Ph.D (Chemistry)	Assistant Professor
9	Dr. Abhilash T. Nair Ph.D (Environmental Engineering)	Assistant Professor
10	Dr. Sumbul Rahman (Joined on 04 October, 2023) Ph.D (Chemistry)	Assistant Professor
11	Dr. Khushboo (Joined on 19 Oct. 2023) Ph.D (English)	Assistant Professor
12	Dr. Nilima Das (Joined on 31 Oct. 2023) Ph.D (Mathematics)	Assistant Professor
13	Dr. Vandana (joined on 21 Dec. 2023) Ph.D (Mathematics)	Assistant Professor

Activities

Academic Activities:

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

Publications:

Journal Articles

- Billakanti, S.,** Othayoth, A. K., Vignesh Babu, H., Shanmugaraj, A. M., Bantumelli, P., & Muralidharan, K. (2023). 2D-Channel-Forming Gatechol-Based Polyphosphates as Solid Polymer Electrolytes and Their Microstructure-Assisted Li-Ion Conductivity. *ACS Applied Energy Materials*, 6(10), 5290–5299. doi:10.1021/acsaem.3c00150
- Anurag, K.,** & Kumar, S. R. (2023). Non-aqueous exfoliation of graphite: A promising approach for tailoring physical properties. *Journal of Solid-State Electrochemistry*, 27(12), 3405–3413. doi:10.1007/s10008-023-05636-1
- Anurag, K.,** & Kumar, S. (2023). Scalable preparation of high-quality graphene by electrochemical exfoliation: effect of hydrogen peroxide addition. *Bulletin of Materials Science*, 46(1), 42. doi:10.1007/s12034-022-02876-1
- Surabhi, S.,** Anurag, K., & Kumar, S. R. (2023). Non-aqueous Solution Processed CdZnTe Thin Film via Chemical Bath Deposition: Effect of Zn doping Variation. *Indian Journal of Pure & Applied Physics*. doi:10.56042/ijpap.v61i8.326
- Kumar, S.,** Alam, A., Ranjan, R., Kumar, S. R., Sharma, S. K., & Tiwary, K. p. (2024). Structural, morphological, hydrophilic and optical study of as synthesized and annealed Cl doped CdZnS thin films. *JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS*, 26(1–2), 74–80.
- Chattopadhyay, S.,** Patra, K. L., & Sahoo, B. K. (2024). On vertex connectivity of zero-divisor graphs of finite commutative rings. *Journal of Algebraic Combinatorics*, 59(4), 955–969. doi:10.1007/s10801-024-01314-1
- Kumari, R.,** Kumar, A., Kanti Ghosh, T., & Basu, S. (2024). Facile synthesis of Aluminium fumarate metal-organic framework and hydroxyapatite composite with improved adsorption characteristics for efficient fluoride removal from water. *Chemical Engineering Science*, 283, 119440. doi:10.1016/j.ces.2023.119440
- Sharma, U.,** Mukherjee, P., Basu, S., & Saravanan, P. (2023). Facile synthesis of ZIF-8 modified PES beads with improved sorption characteristics for elimination of Congo red from aquatic stream. *Reactive and Functional Polymers*, 193, 105765. doi:10.1016/j.reactfunctpolym.2023.105765
- Lakra, R.,** Bilad, M. R., Balakrishnan, M., & Basu, S. (2023). Development of high-performance CuBTC MOF-based forward osmosis (FO) membranes and their cleaning strategies. *Chemical Engineering Research and Design*, 190, 566–579. doi:10.1016/j.cherd.2023.01.005
- Kumari, R.,** Kumar, A., Sarkar, S., Ghosh, T. K., & Basu, S. (2023). Zirconium fumarate metal-organic framework: a selective adsorbent for fluoride from industrial wastewater. *Water Practice & Technology*, 18(5), 1074–1085. doi:10.2166/wpt.2023.066
- Lakra, R.,** & Basu, S. (2023). Incorporation of porous materials in forward osmosis membrane for increased water recovery from waste streams. *Materials Today: Proceedings*, 90, 1–6. doi:10.1016/j.matpr.2023.02.340
- Sharma, U.,** Pandey, R., Basu, S., & Saravanan, P. (2023). ZIF-67 blended PVDF membrane for improved Congo red removal and antifouling properties: A correlation establishment between morphological features and ultra-filtration parameters. *Chemosphere*, 320, 138075. doi:10.1016/j.chemosphere.2023.138075
- Deepti, Mondal,** P. S., Pal, C., Kumar, A., & Majumder, S. (2023). Label-free ultrasensitive electrochemical dopamine sensor fabrication using a low-cost pencil graphite electrode. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 671, 131630. doi:10.1016/j.colsurfa.2023.131630



14. **Deepti, Mondal, P. S., Kumar, A., & Majumder, S. (2024).** Label-free femto molar level electrochemical dopamine sensor based on amorphous carbon-coated pencil graphite electrode. *Journal of Materials Science: Materials in Electronics*, 35(10), 716. doi:10.1007/s10854-024-12504-9
15. Amar Jyoti Saikia, Diptimayee Tripathy, **Arvind Pandey (2023).** The Factors Affecting ionic conductivity in $\text{La}_2\text{Mo}_2\text{-xVxO}_9\text{-}\delta$ ($0 \leq x \leq 0.100$) : XRD and Raman Studies, *Bulletin of the Lebedev Physics Institute* 50(5) : 173-180 DOI:10.3103/S106833562305007X

Book/Book Chapter

1. **Mishra, V.,** Makwana, A. R., & Nair, A. T. (2024). Bioaerosol emission from composting sites: characteristics, associated health impacts, and control approaches. In *Bioaerosols Emission from Anthropogenic Sources* (pp. 85–100). doi:10.1016/B978-0-443-15319-8.00005-8
2. **Anurag, K.,** & Kumar, S. R. (2024). Electrochemical Flaking of Graphene in Aqueous System. In K. Prasad, G. P. Singh, & A. K. Jha (Eds.), *Nanofabrication: Enrapturing Cues and Prodigal Applications* (1st ed.). doi:10.1201/9781003083351
3. **Surabhi, S.,** Anurag, K., & Kumar, S. R. (2023). Development and Characterization of As-Deposited CdTe Thin Films in a Non-Aqueous Medium: In S. A. Bansal, V. Khanna, N. Balakrishnan, & P. Gupta (Eds.), *Advances in Chemical and Materials Engineering* (pp. 201–219). doi:10.4018/978-1-6684-7358-0.ch008
4. **Surabhi, S.,** Anurag, K., & Kumar, S. R. (2024). Effect of Annealing Temperature on Structural, Morphological and Optical Properties of CdZnTe Thin Films. In S. Anil Bansal, V. Khanna, N. Balakrishnan, & P. Gupta (Eds.), *Emerging Applications of Novel Nanoparticles* (Vol. 37, pp. 251–266). doi:10.1007/978-3-031-57843-4_10
5. **Surabhi, S.,** Anurag, K., & Kumar, S. R. (2024). Investigation of the Effect of Annealing Conditions on Chemical Bath Deposited CdTe Thin- film from Non-Aqueous Bath. In V. Khanna, S. A. Bansal, V. Chaudhary, & R. Umamathi (Eds.), *Recent Advancements in Multidimensional Applications of Nanotechnology: Volume 1* (pp. 145–161). doi:10.2174/9789815238846124010009
6. **Kumar, S.,** Alam, A., Rajpal, S., Kumar, S. R., & Singh, D. K. (2023). Transition Metals doped CdS thin films: Short Study. In *Emerging Trends of Technological Innovations in STARTUPS*. Narosa Publishing House Pvt. Ltd, India.

Conference Paper

1. **Kumar, R. R. & Nair, A. T. (2023).** Coagulation of Dye Wastewater: Statistical Optimization Using Response Surface Methodology. In *Proceedings of International Conference on Pollution Control for Clean Environment-2023 (ICPCCE-2023)* by Indian Institute of Technology Bhubaneswar, India.
2. **Pathak, A.,** Samanta, M., Kumar, A., & Naik, S. B. (2023). Physicochemical and Engineering Characterization of Biochar and Biochar amended Soil in Geotechnical Adv of Biochar sustainable infrastructure development and Risk reduction. In *IGC2023, Roorkee Dec. 14-16, 2023*.

Participation in International/National Conference:

1. **Dr. H. Vignesh Babu** attended the "International Conference on Main-group Molecules to Materials (MMM III)" as Invited Speaker, organized by IIT Hyderabad and University of Hyderabad held on 09 December 2023.
2. **Dr. H. Vignesh Babu** organized a "National conference of Advanced Materials and its Applications" as a co-convenor at NIAMT, Ranchi, dated 09 February 2024.
3. **Dr. H. Vignesh Babu** attended a National Workshop "Nurturing Future Leadership Program" under MMTTP" as a participant, organized by IIM Mumbai, dated 11 March 2024.
4. **Dr. Partha Sarathi Mondal** attended an International Conference on "Translational Research: Metals and Material" as a participant, organized by NIAMT, Ranchi dated **19 November 2023**.
5. **Dr. Partha Sarathi Mondal** attended a "National Conference on Advanced Materials and its Application" as a participant, organized by NIAMT, Ranchi, dated 09 February 2024.

Projects:

1. Externally funded project on "Development of Composite Materials with low flammability based on epoxy resins and nanoscale organic-inorganic hardeners."
 - a. Sponsoring Agency : DST scheme for Indo-Russian Joint call (DST-RSF)
 - b. Sanction Amount : INR 91.47 Lakh only
 - c. Duration : 3 Years (2023 to 2026)
 - d. Investigators
 - i. Principal Investigator : Prof. K. Muralidharan
 - ii. Co-Principal Investigator : Dr. H. Vignesh Babu
2. Externally funded project on "Tuning of electrocaloric efficiency in multi-element substituted perovskite relaxor ferroelectric ceramics using high entropy design concept".
 - a. Sponsoring Agency : Department of Science and Technology (DST).
 - b. Sanction Amount : INR 19.8 Lakh only
 - c. Duration : 3 Years (2023 to 2026)
 - d. Mentor : Dr. Partha Sarathi Mondal
 - e. Student Co-Investigator : Deepti
3. The project titled "Establishment of Technology Business Incubator in Advanced and Inclusive Manufacturing"
 - a. Sponsoring Agency : Department of Science and Technology (DST).
 - b. Sanction Amount : INR Rs. 389 Lakh only
 - c. Duration : 3 Years (2023 to 2026)
 - d. Investigators
 - i. Principal Investigator : Dr. Debdas Roy
 - ii. Co-Principal Investigator : Dr. Partha Sarathi Mondal

Consultancies/Visits/Invited Lectures/Collaborations

1. **Dr. Partha Sarathi Mondal** visited NIT, Rourkela for a collaborative research work on ceramic sintering with Prof. Ranabrata Majumder, NIT Rourkella, India.
2. **Dr. Partha Sarathi Mondal** gave a invited lecture on the title "Solid state refrigeration technologies" at the Amity University on 18-20th May 2023.

Other Academic Assignments by Dr. Anil Kumar

1. Academic Counsellor of IGNOU for Master of Science (Environmental Science) (MSCENV) Programme, Bachelor of Science (BSCG) Programme
2. Coordinator of Outreach Programme of Indian Institute of Remote Sensing
3. External Examiner for Evaluation of Ph. D Thesis: "Synthesis of Adsorbents from natural and waste materials and its application in removal of fluoride from an aqueous solution and ground water" of candidate Chandra Bhan from Babasaheb Bhimrao Ambedkar university Lucknow in 2024
4. External Examiner for Evaluation of Ph.D. thesis: Microbial Fuel cell Assisted safe Disposal of contaminant sorbed biochar's"
 - a. Candidate Name: S. Raja Shajahan from Alagappa University, Karaikudi Tamil Nadu, India in 2024.

Administrative Assignment

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





DEPARTMENT OF ELECTRONICS AND COMPUTER ENGINEERING

About Department:

The Department of Electronics and Computer Engineering was established in 2020. The department envisages supporting the mammoth task of transforming the Institute into an Advanced Research Centre for Manufacturing Technology in the country. The enablers of such transformation, such as Computer-Aided Design and Manufacturing, Computer-Aided Engineering, Electronic Control Systems and Devices, Computer Networks and Security, Industrial Automation, Data Analytics, etc. will form the core activities of the youngest department of the Institute. The department envisions achieving excellence in technical education by offering interdisciplinary engineering courses pertaining to Electronics, Computers, Advanced Manufacturing and Automation, and to develop strong competencies in these domains to serve our nation. The department was established with the mandate of starting two new programmes: B. Tech. in Computer Engineering, and B. Tech. in Electronics and Automation Engineering, and to carry out research to support the institute and the academia. The B. Tech. programme in Computer Engineering is a blend of Computer Science and Engineering and Digital Manufacturing. The B. Tech. programme in Electronics and Automation Engineering will 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 essential for the B. Tech. programme in Computer Engineering are under development and will be established in a phased manner.

Faculty

S. No.	Name and Qualification	Designation
1	Dr. G. Rajamohan B. E. (Mech.), M. E. (Manufacturing), Ph.D. (IIT Madras)	Professor & HOD (Upto 30/09/2023)
2	Dr. Madhu Kumari Ph.D.(Indian Institute of Technology (IIT-ISM) Dhanbad)	Associate Professor & HOD (From 01/10/2023)
3	Dr. Vikash Kumar Gupta Ph.D.(Indian Institute of Technology (IIT-ISM) Dhanbad)	Assistant Professor
4	Dr. Ravinder Pal Singh Ph.D. (Indian Institute of Technology, Delhi)	Assistant Professor
5	Dr. Shalini Mahato Ph.D.(Birla Institute of Technology (BIT), Mesra)	Assistant Professor
6	Dr. Dinesh Kr. Prabhakar Ph.D.(Indian Institute of Technology (IIT-ISM) Dhanbad)	Assistant Professor
7	Mr. Abhishek Bakhla B.Tech.(CSE), M.Tech. (CSE)(Indian Institute of Technology (IIT-ISM) Dhanbad)	Assistant Professor
8	Dr. Rahul Mishra Ph.D.(Indian Institute of Technology (IIT-ISM) Dhanbad)	Assistant Professor

Activities

Academic Activities

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

Publications

1. **Mishra, R.,** Ramesh, D., Mohammad, N., & Mondal, B. (2024). Blockchain enabled secure pharmaceutical supply chain framework with traceability: an efficient searchable pharma chain approach. Cluster Computing. doi:10.1007/s10586-024-04626-w
2. **Singh, B. J.,** Sehgal, R., & Singh, R. P. (2023). Additive manufacturing in biomedical and healthcare sector: an umbrella review. International Journal on Interactive Design and Manufacturing (IJIDeM). doi:10.1007/s12008-023-01524-0
3. **Maurya, S. P.,** Sisodia, P. S., Mishra, R., & Singh, D. P. (2024). Performance of machine learning algorithms for lung cancer prediction: a comparative approach. Scientific Reports, 14(1), 18562. doi:10.1038/s41598-024-58345-8
4. **Gupta, V. K.,** Mishra, S. K., & Babu, R. (2023). FACTS placement for reactive power planning with weak node constraints using an improved symbiotic search algorithm. Transactions on Energy Systems and Engineering Applications, 4(2), 1–18. doi:10.32397/tesea.vol4.n2.524
5. **Dikshit, I.,** Bhushan, G., Kamal Batra, N., Singh, R. P., & Singh, G. (2024). Insight to the influence of alkali treatment on mechanical and tribological properties of a novel carbon/jute hybrid porcine filled polyester composite. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 09544089231223598. doi:10.1177/09544089231223598
6. **Gupta, V. K.,** Mishra, S. K., Babu, R., & Singh, A. K. (2024). Solution of Reactive Power Planning with TCSC and UPFC Using Improved Krill Herd Algorithm. Transactions of the Indian National Academy of Engineering, 9(1), 87–99. doi:10.1007/s41403-023-00428-5
7. **Babu, R.,** & Gupta, V. K. (2023). Analysis of Bus Vulnerability Conducted Using a Synchronized Phasor Measurement Unit in Order to Achieve the Maximum Observability. Transactions on Energy Systems and Engineering Applications, 4(2), 1–23. doi:10.32397/tesea.vol4.n2.523
8. **Mishra, S. K.,** Gupta, V. K., Kumar, R., Swain, S. K., & Mohanta, D. K. (2023). Multi-objective optimization of economic emission load dispatch incorporating load forecasting and solar photovoltaic sources for carbon neutrality. Electric Power Systems Research, 223, 109700. doi:10.1016/j.epsr.2023.109700

Patent/Project

- **Pulak M Pandey,** Ravinder Pal Singh, Asit Ranjan Mridha, Vishal Gupta, Ravi Gupta (2023) has been granted a Patent titled "An Automatic TRI-AXIAL Rotary Ultrasonic Bone Drilling Machine" by Intellectual Property India with Application Number: 201911031205, Filing Date: 01-08-2019, Patent Number: 469608, Issue Date: 01-11-2023.

Consultancies/Visits/Invited Lectures/Collaborations

- The department organized an industrial visit to the Software Technology Parks of India (STPI), GoI and MIMEC IT Park on 11th March 2024 for the students of the department to provide them with exposure to real world working environment in IT Sector under the supervision of Dr. Rahul Mishra and Dr. Shalini Mahato.
- Dr. Rahul Mishra conducted an Industrial Visit Seminar for B.Tech. (2nd year) Computer Engineering students in March 2024.



- Dr. Shalini Mahato gave a talk titled "Industry 4.0 and Artificial Intelligence" in the Seminar "Current Trends in the Industries and Focus towards Industry 4.0" organized by Jharkhand Government Tool Room Ranchi on 16th Feb 2024.
- Dr. Ravinder Pal Singh gave an expert talk on the topic "3D printing: A technology with its diverse potential in Multidisciplinary Sectors" at the FDP program organized by the Department of Mechanical Engineering, National Institute of Technology, Rourkela on 19th Feb 2024.

Other Academic Assignments

- Dr. Ravinder Pal Singh is supervising a joint PhD as a co-guide with Dr. N K Batra, Professor, ME Department of Maharishi Markandeshwar University, Mullana (Deemed to be University).
 - Name of Student: Sahil Dayal
 - Area: Advanced Composites

Administrative Assignment

1.	Dr. Ravinder Pal Singh	Appointed as Warden of MV Hostel
		Active member of VIKSIT BHARAT event held at institute level, Nov 2023
2.	Dr. Shalini Mahato	Member in Campaign "Mera Pehla Vote Desh Ke Liye" Member in the Local Purchase Committee for the Development of new website for the Institute.

Department Laboratory details:

1. Newly developed laboratories:

S. No.	Name of the Laboratory (Add Rows, if required)	In charge Faculty	List of Equipment/Machinery Procured (Add Rows, if required)	Quantity
1	Networking & Computation Lab. (Development under process)	Dr. Vikash Kumar Gupta / Dr. Dinesh Kumar Prabhakar / Dr. Shalini Mahato	Interactive Panel	1
2	High Performance Computing Lab. (Development under process)	Dr. Madhu Kumari / Dr. R.P. Singh / Dr. Rahul Mishra	Interactive Panel	1



Department of Foundry and Forge Technology (FFT)

Highlight of the Laboratories

Foundry Shop



Forge Shop



Newly Installed Laboratories facilities



Universal Testing Machine



CNC Milling Machine



Electric Discharge Machine



Wire Electric Discharge Machine



Coordinate Measuring Machines (CMM)



Brinell Hardness Testing machine

Newly Installed Laboratories facilities



Low speed diamond cutting machine



ARC melting unit



Vickers hardness tester



Brinell hardness tester

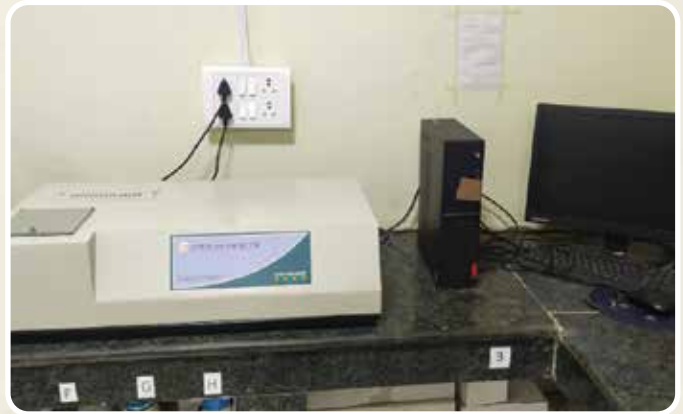


Optical Microscope with Image analyser

Newly Installed Laboratories facilities



Kjeldahl nitrogen analyser



UV-Visible Spectrophotometer



Ultra-filtration testing kit



BOD incubator/ shaker



Vacuum coating unit with electron beam evaporation



Vacuum coating unit with electron beam evaporation

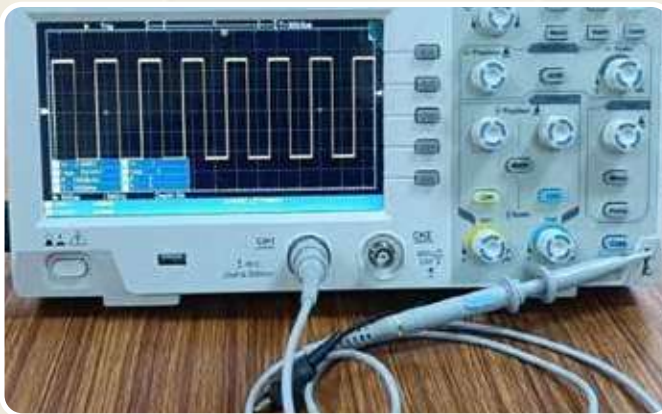
Newly Installed Laboratories facilities



AC R-L-C Series Circuit



Auto Transformer



Digital Oscilloscope



Microprocessor 8085



SLA 3D- printer for automation and IOT lab

Central Instrumentation Facilities (CIF)

Central Instrumentation Facilities (CIFs) are lab facilities that provide access to advanced analytical instruments for research and chemical and structural analysis. It offers analytical services for plant products and industrial problems as well as provides instrumental and infrastructural support to R&D activities:

XRD Laboratory

Make : X-ray Diffractometer - Rigaku Japan

Model : Smart Lab 3 KW

Target : Cu

Detector : Solid state 2D detector Hypix400

Applications : Phase analysis, Residual stress analysis, Texture analysis



Fourier Transform Infrared Spectroscopy (FT-IR)

Make : Bruker Optics GmbH, Germany

Model : ALPHA II-E



Universal Testing Machine (UTM)

Make : BISS India

Model : UTM-100kN



Differential Scanning Calorimetry (DSC)

Make : Setaram - KEP Technologies

Model : Setline DSC (RT to 700 °C)



GENERAL ADMINISTRATION

➤ **Appointment** : 45

➤ **Resignation** : 01

Sl. No.	Name	Designation	Date of Relieving	Mode
01	Mr. U.C. Prasad	Registrar	28.12.2023	Technical Resignation

➤ **Retirement** : 02

Sl. No.	Name	Designation	Date of Retirement	Mode
01	Dr. Mamta Sharma	Hindi Officer	30.09.2023	Superannuation
02	Mr. Uttam Kumar Ghosh	Superintendent	31.12.2023	Superannuation

➤ **Staff Strength as on 31.03.2024:**

Director	01
Professor	17
Associate Professor	03
Assistant Professor	44
Registrar	00
Dy. Registrar	01
Assistant Registrar	03
Sr. Medical Officer	01
Medical Officer	00
Technical Officer	01
Hindi Officer	00
Executive Engineer	00
Assistant Librarian	01
Technician	04
Sr. Technician	01
Technician (SGII)	05
Technical Assistant	00
Sr. Technical Assistant	02
PS to Director	00
Sr. Superintendent	00
Superintendent	01
Assistant (SGII)	04
Sr. Assistant	04
Junior Assistant	05
Multi-Tasking Staff	21
Total	119



Upgraded Status of NIAMT Ranchi from Feb 2024

[TO BE PUBLISHED IN THE GAZETTE OF INDIA PART-I SECTION-1]

Government of India (Bharat Sarkar)
Ministry of Education (Siksha Mantralaya)
Department of Higher Education (Uchcharat Siksha Vibhag)
ICR Division

Shastri Bhawan, New Delhi
Dated: 23rd February, 2024

NOTIFICATION

No.9-7/2020-U.3(A): Whereas, the Central Government is empowered under Section 3 of the University Grants Commission (UGC) Act, 1956 to declare, on the advice of the UGC, an Institution of higher learning as an Institution Deemed to be University.

2. **And whereas**, an online application was submitted on the UGC Portal for conferment of Institution deemed to be University status under de-novo category (now distinct category) to National Institute of Advanced Manufacturing Technology, Hatia, Ranchi, Jharkhand.

3. **And whereas**, UGC examined the application through its Expert Committee in accordance with UGC (Institutions deemed to be Universities) Regulations, 2019. The Committee, after overall assessment, recommended that Letter of Intent (LoI) may be issued to NIAMT, Ranchi with certain conditions. The recommendation of the UGC Expert Committee was considered and approved by the Commission in its 551st meeting (item No. 2.01) held on 01.07.2021.

4. **And further whereas**, while the matter was under examination, UGC notified the new UGC (Institutions deemed to be Universities) Regulations, 2023 in place of UGC Regulations, 2019. As per Regulation 30 of UGC Regulations, 2023, NIAMT, Ranchi requested to consider its application for deemed to be University status under 'distinct' category of UGC Regulations, 2023.

5. **And whereas**, the Ministry of Education, on the advice of UGC, issued Letter to Intent (LoI) to NIAMT, Ranchi on 11.10.2023 for fulfilment of certain conditions within a period of three years.

6. **And further whereas**, the Institution, vide letter 24.11.2023, submitted compliance report in respect of the conditions of LoI. The compliance report of the Institution was verified by the UGC Expert Committee. The Committee accepted the compliance report of the Institution. The report of the UGC Expert Committee was considered and approved by the Commission in its 577th meeting (Item No 2.05) held on 13.02.2024.

7. **Now, therefore**, in exercise of powers conferred under Section 3 of the UGC Act, 1956, the Ministry of Education, on the advice of the UGC, hereby declares National Institute of Advanced Manufacturing Technology (NIAMT), Hatia, Ranchi, Jharkhand as

प्रति

Page 1 of 3

an Institution deemed to be University under distinct category. The said declaration is further subject to the following conditions:

- i. NIAMT, Ranchi shall start new academic Courses/Programmes pertaining to furtherance of advanced manufacturing technology.
- ii. NIAMT, Ranchi shall conduct undergraduate or postgraduate courses pertaining to furtherance of advanced manufacturing technology.
- iii. NIAMT, Ranchi shall take appropriate steps to commence research programmes as well as doctoral and innovative academic programmes pertaining to advanced manufacturing technology. The Institute shall not keep confined only to presently new emerging areas but make endeavour to expand in other related areas in accordance with the UGC Regulations / Guidelines as well as National Education Policy-2020.
- iv. NIAMT, Ranchi shall become compliant with the UGC (Institutions deemed to be Universities) Regulations, 2023 within a period of six years from the date of issuance of this Notification.
- v. The entire moveable & immovable assets shall be in the name of NIAMT, Ranchi or its Sponsoring body.
- vi. There shall be no diversion of assets or funds/revenues of the Institution Deemed to be University/or of its constituent teaching units, without prior permission of the UGC and Ministry of Education.
- vii. NIAMT, Ranchi shall not engage or indulge in any activities that are of commercial and profit making in nature.
- viii. The academic programmes to be offered at NIAMT, Ranchi shall conform to the norms and standards prescribed by the Statutory Councils/Bodies concerned.
- ix. NIAMT, Ranchi shall start Off-Campus(es), Off-Shore Campus(es) only in accordance with the norms and guidelines issued by the UGC, from time to time, on the subject.
- x. NIAMT, Ranchi shall take all the required steps to get all the eligible academic courses/programmes rated for valid accreditation by National Board of Accreditation (NBA) and the Institute to get valid accreditation by National Assessment and Accreditation Council (NAAC), as the case may be, in terms of the provisions as contained in the UGC (Institutions Deemed to be Universities) Regulations, 2023, as amended from time to time.
- xi. All the prescribed norms and procedures of the Statutory Councils concerned in the matter of admission of students, intake capacity of students, renewal of approval to the academic course / programme, revision of intake capacity of students, starting of new courses / programmes, etc. shall continue to be in force, and shall be adhered to by NIAMT, Ranchi.
- xii. NIAMT, Ranchi shall submit its revised Memorandum of Association (MoA) / Rules to UGC/ Ministry of Education as per the provisions of the UGC (Institutions deemed to be Universities) Regulations, 2023 by June, 2024. As and when necessary, the Institute shall update or revise or modify its MoA / Rules, as per the provisions of the prevailing Regulations.





- xiii. NIAMT, Ranchi shall follow the fee structure as per the Rules and Regulations of the UGC and relevant Statutory Councils.
- xiv. NIAMT, Ranchi shall participate in annual Indian rankings issued by National Institutional Ranking Framework (NIRF) of this Ministry.
- xv. NIAMT, Ranchi shall compulsorily create Academic Bank of Credits (ABC), identities of their students and upload their credit score in digital lockers and ensure that the credit scores are reflected in ABC Portal and adopt Samarth e-Gov.

पूक बनरज
23/2/2024

(Purnendu Kishore Banerjee)
Joint Secretary to the Govt. of India
Tel: +91 11 23383432

The Manager,
Government of India Press,
Minto Road, New Delhi - 110002.

Copy forwarded to:

1. The Secretary, University Grants Commission, Bahadurshah Zafar Marg, New Delhi - 110002.
2. The Director, National Institute of Advanced Manufacturing Technology, Hatia, Ranchi, Jharkhand-834003
3. The Principal Secretary, Higher & Technical Education Department, Govt. of Jharkhand, 3rd Floor, Yojana Bhawan, Nepal House, Doranda Ranchi, Jharkhand - 834002
4. The Member Secretary, All India Council for Technical Education, Nelson Mandela Marg, Vasant Kunj, New Delhi-110070.
5. Press Information Bureau, Shastri Bhawan, New Delhi-110001.
6. The Secretary-General, Association of Indian Universities, A.I.U. House, 16, Kotla Marg, New Delhi - 110002.
7. Joint Director (Administration) & Web Master, Department of Higher Education, Shastri Bhawan, New Delhi with the request to issue necessary instructions to the CMIS Unit to display this notification on the website of Department of Higher Education.
8. Guard file / Notification file.

Amr

(Ambrish Kumar Sharma)
Under Secretary to the Govt. of India
Tel: +91 11 23383538

ACADEMIC ACTIVITIES

Regular Activities of Academic Section.

All the regular activities of the Academic Section such as conducting semester examinations, publishing of results have been carried out as per schedule. Classes of First semester M. Tech.-2023, B. Tech. -2023 and ADC 2023 had started as per schedule.

Admission in 2023

1. Ph. D. Programme

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

Sl. No.	Department	No. of seats	No. of seats filled
1.	Materials and Metallurgical Engineering	3	1
2.	Foundry and Forge Technology	6	2
3.	Mechanical and Manufacturing Engineering	3	0
4.	Applied Sciences and Humanities	3	1

2. M. Tech. Programme

Admission through CCMT-2023 & Self Sponsored

Sl. No.	Branch	No. of seats	No. of seats filled
1.	Foundry-Forge Technology	36	02
2.	Manufacturing Engineering	38	01
3.	Industrial Metallurgy	36	08
4.	Environmental Engineering	38	06

3. B. Tech. Programme

Admission through JoSAA/CSAB-2023

Branch (Allotted + supernumerary)	No. of seats	No. of seats filled
Mechanical Engineering	78	71
Metallurgy and Materials Engineering	75	64
Production and Industrial Engineering	64	51
Computer Engineering	64	50

4. ADC (51st) 2023-2025

Admission through written test conducted by the Institute.

Branch	No. of seats	No. of seats filled
Foundry Technology	58	22
Forge Technology	57	19



Students Passed out in year of 2023

1. M. Tech. (2021-2023)

Sl. No.	Branch	No. of students passed out
1.	Foundry-Forge Technology	04
2.	Manufacturing Engineering	04
3.	Materials Science & Engineering	04
4.	Environmental Engineering	23

2. B. Tech. (2019-2023)

Branch	No. of students passed out
Manufacturing Engineering	56
Metallurgy and Materials Engineering	67

3. 50th ADC

Branch	No. of students passed out
Foundry Technology	28
Forge Technology	32

• • •

CENTRALIZED COMPUTER CENTRE

About the Centre:

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 boy's and girls' student hostels and staff residences.

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

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

Facilities Developed at Central Computer Centre (C.C.C.):

- 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, POWERPOING)
- SOPHOS (ANTIVIRUS FOR ALL THE DESKTOP COMPUTERS OF THE INSTITUTE)
- CATIA
- ADOBE PHOTOSHOP





Library and Documentation Centre

The Institute's Library marked its existence in 1966. Since then, it has grown in size and content along with National Institute of Foundry and Forge Technology (NIFFT and now NIAMT) to take the present shape. All these years, it has been the life line for the academic activity of the Institute. The Library has been catering to the needs of the under graduates, post graduate research scholar facility and staff members of the Institute. The book collection has been supporting the teaching, research, development and other professional activities of different departments. The demands of the ever growing research areas multiple disciplines is being catered with the help of latest volumes, in almost all fields of engineering, Science, Technology and general areas.

The centre provides Reading Facility, Borrowing Facility, Reference Services, Reprography Services, Inter Library Loan, Binding Facility and Laminating Facility. The Library has approximately 1000 users (UG Students, PG Students, ADC Students, Ph.D. Students Participants of Refresher Courses, Faculty Members and Staff Members of the Institute and can provide sitting space to 100 people at a time.



Central Library Staff

Mr. Ranjeet Kumar Singh	Designation: Assistant Librarian
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Library Committee:

1	Dr. Niranjan Kumar Singh Professor, Department of Foundry and Forge Technology	Chairman
2	Dr. G. Rajamohan HOD, Mechanical and Manufacturing Engineering	Member
3	Dr. Kamlesh Kumar Singh HOD, Department of Foundry and Forge Technology	Member
4	Dr. Binod Kumar HOD, Department of Materials and Metallurgical Engineering	Member
5	Dr. S.R. Kumar HOD, Department of Applied Sciences and Humanities	Member
6	Dr. Madhu Kumari HOD, Electronics and Computer Engineering	Member
7	Mr. Kumar Prabhanjan Panigrahi Deputy Registrar	Member
9	Mr. Ranjeet Kumar Singh Assistant Librarian	Coordinator

Services & Collections:

- Library is providing online access to e-journals through Elsevier.
Science Direct -5 Subject Collections
 - Engineering
 - Material Science
 - Environmental Science
 - Computer Science
 - Physics and Astronomy
- Library is providing online access to e-resources through e-ShodhSindhuconsortium of INFLIBNET Centre, Gandhinagar of the following package:
List of e-resources available through e-shodh Sindhu
 - ASME Journals Online
 - Institute for Studies in Industrial Development (ISID) Database
 - JGate Plus (JCCC)
 - Springer Link 1700 Collection + Nature Journal





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:

1. Dr. G. Rajamohan (till 15th February 2024)
2. Dr. B. Mallik (16th February 2024 onwards)

SL. No.	Name of the Hostel	Meant for	Seat type	Capacity	Warden / Assistant Warden
1	Kalpana Chawla Chatrawas*	Girls	Double and triple	192	Warden: Dr. Aruna Thakur (till 15 th February 2024) Warden: Dr. Vaishali Poddar (16 th February 2024 onwards) Assistant Warden: Dr. Sumbul Rahman (16 th February 2024 onwards)
2	Nirala Chatrawas*	Boys	Double and triple	150	Warden: Dr. Ratnesh Gupta (till 15 th February 2024)
3	V.A. Sarabhai Chatrawas	Boys	Single	30	Warden: Dr. S. K. Parida (16 th February 2024 onwards) Assistant Warden: Dr. P. K Swain (16 th February 2024 onwards)
4	H.J. Bhabha Chatrawas	Boys	Double	300	Warden: Dr. Vignesh Babu (till 15 th February 2024) Warden: Dr. Jageswar Verma (16 th February 2024 onwards) Assistant Warden: Dr. Sunny Singhania (16 th February 2024 onwards)
5	M.V. Chatrawas	Boys	Single	176	Warden: Dr. Kulkarni Rahul Ramesh (till 15 th February 2024) Warden: Dr. A. M. Murmu (16 th February 2024 onwards) Assistant Warden: Dr. R. P. Singh (16 th February 2024 onwards)
6	J.C. Bose Chatrawas	Boys	Single	416	Warden: Dr. A. M. Murmu (till 15 th February 2024) Warden: Dr. S. Basu (16 th February 2024 onwards) Assistant Warden: Dr. E. Hemachandran (16 th February 2024 onwards)

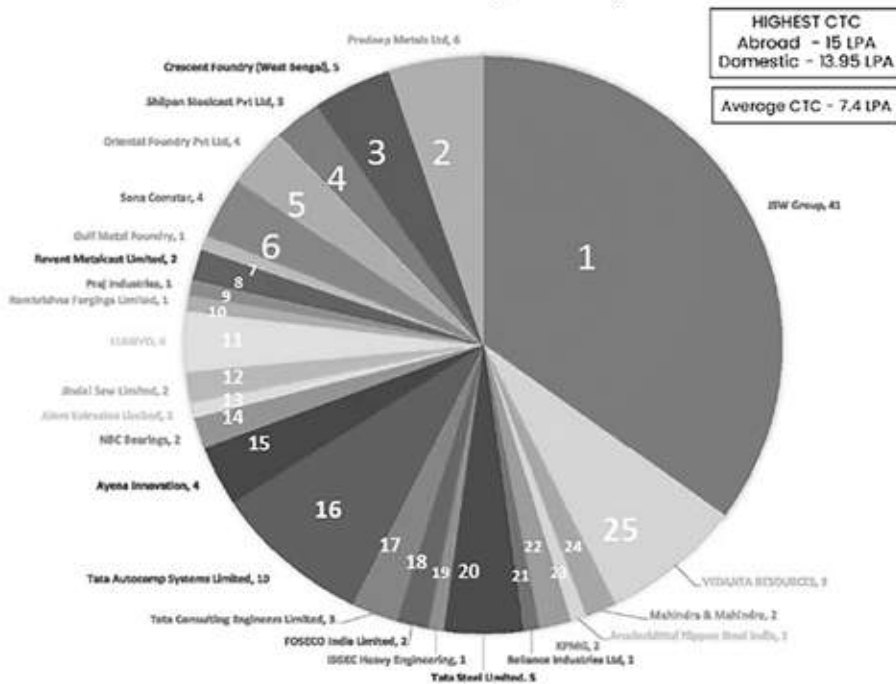
* Extension of these hostels in progress

INDUSTRIAL LIAISON CELL

COMMITTEE MEMBERS

Faculty	
Dr. Anil Kumar Professor, Dept. Of (ASH)	Chairman
Dr. Subhankar Basu Assistant Professor, Dept of (ASH)	Member
Dr. Ratnesh Gupta Assistant Professor, Dept. Of (FFT)	Member
Dr. Himanshu Khandelwal Assistant Professor Dept of (FFT)	Member
Dr. Vinit Chack Assistant Professor Dept. Of (FFT)	Member
Dr. Ratnakar Das Assistant Professor Dept of (Mech. & Manuf. Engg.)	Member Secretary

PLACEMENT REPORT OF B.TECH (MME & ME) 2020-2024 BATCH



1. ISW Group, 41
2. Pradeep metals ltd., 6
3. Crescent foundry, 5
4. Shilpan steelcast pvt ltd., 3
5. Oriental foundry pvt ltd, 4
6. Sona comstar, 4
7. Gulf metal foundry, 1
8. Revent metalcast ltd., 2
9. Praj industries, 2
10. Ramkrishna forgings ltd., 1
11. Lumivo, 4
12. Jindal saw ltd., 2
13. Alom extraction ltd., 1
14. NBC Bearings, 2
15. Ayena Innovation, 4
16. Tata autocomp systems ltd., 10
17. Tata consulting engineers ltd., 3
18. FOSECO India ltd., 2
19. ISGEC heavy engineering, 1
20. Tata steel ltd., 5
21. Reliance Industry ltd., 1
22. KPMG, 2
23. Arcelormittal Nippon steel, 1
24. Mahindra & Mahindra, 2
25. Vedanta Resources, 9



Our Recruiters



MOU With Leading Firms:



Training / Internship Details 2024

Our students have pursued their internships from the following esteemed companies and research laboratories such as Tata Steel, Maruti Suzuki, DRDO, RINL-Vizag Steel, CMERI (Central Mechanical Engineering Research Institute), Campalin Innovations, SAIL, CSIR-NML, Shriram Pistons & Rings Ltd. Vedanta Ltd. (HZL), BHEL, HERO, TATA CUMMINS, TATA Bluescope Steel, Tata Stee Ltd., JSW Steel Ltd. Brahmastra Aerospace Systems, Ayena Innovation Pvt. Ltd., Sany Heavy Industries Ltd., Rail Wheel Plant, Road Construction Department (Mechanical Division), Patna, Hyundai, Tata Motors, BLW, Larsen & Toubro, JCB, Coal India Ltd. Neosym, RKFL, Highway Industries Ltd.

Job Placement in 2023-24

Sl. No.	Degree	Placement (no.)	Placement (%)	Average pay	Highest pay
1	Mechanical Engineering	63	100	3.5 LPA	13.95 LPA
2	Metallurgical Engineering	64	100		
3	ADC (Foundry)	29	100	3.5 LPA	4.5 LPA
4	ADC (Forge)	33	100		
5	M.Tech (FFT)	1		3.5LPA	3.5LPA
6	M.Tech (MME)	6			

Details of companies and their recruitment

SI. NO.	COMPANIES	B.TECH		ADVANCE DIPLOMA		M.Tech	
		HIGHEST PAY- 13.95 LPA		HIGHEST PAY- 4.5LPA		HIGHEST PAY- 4.5LPA	
		AVERAGE PAY - 3.5LPA		AVERAGE PAY -3.5LPA		AVERAGE PAY -3.5LPA	
		ME	MME	FOUNDRY	FORGE	FFT	ME
1	TATA METALIKS	2	3	-	-	-	-
2	AYENA INNOVATION	2	2	-	-	-	-
3	KPMG	1	1	-	-	-	-
4	JSW	19	21	-	-	-	-
5	PRADEEP METALS	4	2	-	-	-	-
6	LUMIVO	3	1	-	-	-	-
7	TATA AUTO COM	11	0	-	-	-	-
8	SONA COMSTAR	3	1	-	-	-	-
9	CRESECENT FOUNDRY	1	4	-	-	-	-
10	REVENT INDUSTRY (AMTEK)	-	2	9	-	-	-
11	ISGEC	-	1	2	-	-	-
12	JINDAL SAW	1	1	-	-	-	-
13	NBC BEARING	-	2	-	-	-	-
14	GULF FOUNDRY	1	0	0	-	-	-
15	RKFL LTD.	-	1	5	6	-	1
16	RICO INDUSTRY	-	-	5	-	-	-
17	NEOSYM INDUSTRY LIMITED	-	-	5	-	1	2



SI. NO.	COMPANIES	B.TECH		ADVANCE DIPLOMA		M.Tech	
		HIGHEST PAY- 13.95 LPA		HIGHEST PAY- 4.5LPA		HIGHEST PAY- 4.5LPA	
		AVERAGE PAY - 3.5LPA		AVERAGE PAY -3.5LPA		AVERAGE PAY -3.5LPA	
		ME	MME	FOUNDRY	FORGE	FFT	ME
18	RATAN INDUSTRY AGRA	-	-	1	-	-	-
19	VIRAJ PROFILE	-	-	-	10	-	-
20	R.N GUPTA	-	-	-	13	-	-
21	CHW	-	-	-	2	-	-
22	PRABHAT HEAVY FORGE	-	-	-	1	-	-
23	KEMS FORGING BANGLORE	-	-	-	1	-	-
24	INDUSTRIAL METALLURGY	-	-	-	-	-	1
25	SHIVALIK INDUSTRIES	-	-	-	-	-	1
26	ROTO INDUSTRIES RAIPUR	-	-	-	-	-	1
27	GOVT. JOB	-	-	2	-	-	-
28	VEDENTA	4	5	-	-	-	-
29	VIMAL ALLOYS MANDI PAN	-	1	-	-	-	-
30	TCE	-	3	-	-	-	-
31	SHILPAN CAST STEEL	1	2	-	-	-	-
32	SWARAJ MAHINDRA	0	2	-	-	-	-
33	ORIENTAL FOUNDRY PVT LTD	3	2	-	-	-	-
34	CRESECENT FOUNDRY LTD.	-	2	-	-	-	-
35	CRESECENT FOUNDRY INDUSTRIES	2	-	-	-	-	-
36	ALOM EXTUSIONS LTD	-	1	-	-	-	-
37	PRAJ INDUSTRIES LTD	-	1	-	-	-	-
38	NEOSYM	4	-	-	-	-	-
39	SHIVAM AUTOTECH	-	2	-	-	-	-
40	SARLAL ENGINEERING	1	1	-	-	-	-

ME- Mechanical Engineering

MME- Materials & Metallurgical Engineering

FFT- Foundry & Forge Technology

NIAMT STUDENT'S GYMKHANA

COMMITTEE MEMBERS

Dr. Subhankar Basu Assistant Professor Department of (ASH)	Chairman
Dr. Ratnakar Das Assistant Professor Dept. of (Mech. & Manuf. Engg.)	Member
Dr. Sriparna Chattopadhyay Assistant Professor Drpt. of (ASH)	Member
Dr. Mamta Sharma Hindi Officer	Member
Shri A. K. Verma Assistant Registrar (Academics)	Member Secretary

Following were the events that took place in the session 2022-2023 by NIAMT Student's Gymkhana:

Activities	Events
Sports	<ul style="list-style-type: none"> ➤ Inter hostel sports festival (Jazba) ➤ Intra college sports event (Sadbhavna) ➤ Inter college sports festival participation at BIT, Mesra, IIT, Dhanbad, IIIT, Ranchi ➤ Independence Day and celebration day - dance,drama,music, skit play.
Independence Day and Republic Day	<ul style="list-style-type: none"> ➤ Dance, songs, and drama
Har Ghar Tiranga	<ul style="list-style-type: none"> ➤ Street play and dance ➤ Skit play
Ek Bharat Shrestha Bharat (Jharkhand -Goa)	<ul style="list-style-type: none"> ➤ Intra college Music festival ➤ Intra college workshop on fine arts ➤ Jharkhand goa- intra college music festival ➤ Intra college fine arts competition
Engineers' day celebration	<ul style="list-style-type: none"> ➤ Dance, drama, music cultural night
Artista cultural night	<ul style="list-style-type: none"> ➤ Dance, music competition performed by the students
Adieu	<ul style="list-style-type: none"> ➤ Community fest ➤ Swaram band performance



STUDENT ACTIVITIES

Kartavya- An effort towards educated INDIA

An idea born out of true social service is shining 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 several steps like initiating 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 several 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 its goal of impacting the lives of many unprivileged children through education.



INTERNAL COMMITTEES

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

1	Dr. Madhu Kumari, Associate 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. Kamlesh Kumar 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. Kamlesh Kumar 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)

9A. 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

9B. 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

9C. 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

10. 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



National Events Organised in 2023-24

SL No.	Date	Events
1	21 June 2023	International Yoga Day
2	15 August 2023	Independence Day
3	28 August 2023	Chandrayaan's Landing
4	15 September 2023	Engineer's Day
5	1 October 2023	SwachhataPakhwada
6	12 October 2023	Smart India Hackathon
7	27,28 October 2023	Outreach program by GATE-JAM
8	17 October 2023	MeriMatiMeraDesh
9	31 October 2023	National Unity Day(Blood Donation Camp)
10	19,20,21 November 2023	Silver Jubilee of MME Department
11	24 November 2023	Jan JatiyaGaurav Divas
12	19-25 November 2023	Communal Harmony Week
13	1 December 2023	World AIDS Day
14	2 – 3 December 2023	ARTISTA-2023
15	9 December 2023	AI & Machine learning session
16	11 December 2023	"Vikshit Bharat 2047"-Voice of youth by PRIME MINISTER
17	13 December 2023	BharatiyaBhasaUtsav 2023
18	20-21 December 2023	Sadbhavana
19	12 January 2024	National Youth Day and Blood Donation Camp
20	26 January 2024	Republic Day

HINDI CELL

Hindi Cell is the centre of official language activities of the institute.

The cell discharges the responsibility of compliance of the official language policies of the Union in the institute.

The following works were done by the cell during the year under review.

- ❖ After the official language inspection done by the Parliamentary Official Language Committee in March last year, the institute received directions to improve the performance of the institute on certain points. In view of this, a compliance work list was prepared by the Hindi Cell of the institute and work was done on it.
- ❖ The institute registered its representation in all the meetings of Ranchi City Official Language Implementation Committee held during the year under review. In the meeting, cognizance was taken of the deficiencies found in the review of the quarterly report of the institute.
- ❖ The Hindi Cell organised the meetings of the Official Language Implementation Committee of the institute.
- ❖ The Hindi Cell organised Hindi workshops for faculty members, officers, employees every quarter.
- ❖ Hindi Pakhwada was organised in the institute in the month of September. In which apart from the employees, students of the institute participated in large numbers.





National Institute of Advanced Manufacturing Technology

(Formerly National Institute of Foundry and Forge Technology)

Deemed to be University under Distinct Category under MoE, Govt. of India

Hatia, Ranchi – 834003 (Jharkhand)



Annual Accounts

For the Financial Year 2023-24

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

INTERNAL AUDITORS
M/S MANMOHAN SINGH & CO.
Chartered Accountants
Ranchi

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 2023-24

(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 2023-24

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NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

HATIA, RANCHI - 834 003

BALANCE SHEET AS ON 31ST MARCH, 2024

SOURCES OF FUNDS	Schedule	Current Year 2023-24	Previous Year 2022-23
CORPUS/CAPITAL FUND	1	1,36,59,86,645.32	1,31,71,47,557.47
DESIGNATED, EARMARKED AND ENDOWMENT FUND	2	1,18,05,937.40	1,06,40,538.40
HEFA LOAN	2A	5,63,04,160.00	8,26,36,071.00
CURRENT LIABILITIES	3	15,69,74,324.74	17,61,31,172.18
TOTAL		1,59,10,71,067.46	1,58,65,55,339.05

APPLICATION OF FUNDS	Schedule	Current Year 2023-24	Previous Year 2022-23
FIXED ASSETS	4		
a) Tangible Assets		71,88,21,649.26	72,53,61,222.46
b) Capital work-in-Progress		52,35,52,445.00	47,23,83,373.00
c) Intangible Assets		92,14,808.52	1,39,18,310.99
INVESTMENT FOR DESIGNATED, EARMARKED AND ENDOWMENT FUND	5	-	-
INVESTMENT - OTHERS	6	-	-
CURRENT ASSETS	7	16,51,26,184.11	19,98,48,093.55
LOANS, ADVANCES & DEPOSITS	8	17,43,55,980.56	17,50,44,339.06
TOTAL		1,59,10,71,067.45	1,58,65,55,339.06

For M/s Mannohan Singh & Co.
Chartered Accountants



(Signature)

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

(Signature)
31.05.2024
Prof. P. P. Chattopadhyay
Registrar I/c
31-05-2024
Director

कुलसचिव
Registrar

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

(Signature)
31.05.2024
K. P. Panigrahi
Dy. Registrar
उप कुलसचिव
Dy. Registrar

कुलसचिव
Registrar

राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान, रांची-3
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	1,31,71,47,557.47	1,20,16,00,773.91
Add: Contributions towards Corpus/Capital fund	-	-
Add: Grants from UGC, Govt. of India, state Government to the extent utilised for capital expenditure	8,41,58,255.00	12,00,42,976.00
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)	-	-
Add: Excess of Income over Expenditure transferred from the Income & Expenditure Account	-	-
TOTAL	1,40,13,05,812.47	1,32,16,43,749.91
Deduct: Deficit transferred from Income & Expenditure Account	(1,52,14,331.15)	(44,96,192.44)
Deduct: Prior Period Rectification of Profit & Loss A/c	(9,18,907.00)	-
Deduct: Amount reversed during the year based on CAG observation	(1,91,85,929.00)	-
Balance at the year end	1,36,59,86,645.32	1,31,71,47,557.47





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 CUSD Committee	20,00,000.00		20,00,000.00		20,00,000.00
2	Earmarked Fund for NIFT Allumni Cell	16,89,230.40		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	6,15,399.00	18,65,950.00	2,50,000.00	16,15,950.00
5	Income Tax Refund	5,86,750.00		5,86,750.00		5,86,750.00
6	CUSD Modular Kitchen Development (Utsav Mahto)	2,12,364.00		2,12,364.00		2,12,364.00
7	Earmarked Fund-(SERB Project-Debdas Roy)	-	8,00,000.00	8,00,000.00		8,00,000.00
	Total	1,06,40,538.40	14,15,399.00	1,20,55,937.40	2,50,000.00	1,18,05,937.40



SCHEDULE - 2 (A): HEFA LOAN

	Particulars	FY 2023-24	FY 2022-23
1	Opening Balance	8,26,36,071.00	8,64,41,921.00
2	Add: Loan from HEFA (Amount directly paid to CPWD)	-	-
3	Add: Loan from HEFA (Amount directly paid to Supplier)	44,88,089.00	2,70,14,150.00
4	Add: Interest charged by HEFA	42,86,528.00	57,38,330.00
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)	33,41,337.00	42,38,330.00
7	Less: 4 th QTR Interest payable to Next FY	9,45,191.00	15,00,000.00
	Closing Balance (1+2+3+4-5-6)	5,63,04,160.00	8,26,36,071.00





SCHEDULE - 3: CURRENT LIABILITIES

CURRENT LIABILITIES		FY 2023-24	FY 2022-23
1	Deposit From Staff	28,96,782.00	18,65,907.00
2	Deposit From Student		
a	Caution Money	1,30,78,153.50	91,55,153.50
3	Deposit-Others		
a	Earnest Money	41,93,354.00	49,06,153.00
b	Security Deposit	1,74,738.30	1,74,738.30
c	Performance Security	6,85,024.00	4,31,562.00
4	GeM Suppliers		
5	Hostel Establishment Fund	95,21,847.00	
6	Other Current Liability		
a	Expense Payable	1,21,16,617.00	
b	Other Liabilities		
i	Account Payable/ Receivable	2,23,441.00	2,23,441.00
ii	AICTE	1,40,000.00	1,40,000.00
iii	Grant From CBSE Board	50,000.00	50,000.00
iv	M/s Total Library Solution	92,784.00	92,784.00
v	Provisional Expenses		4,30,55,038.00
vi	Amount Payable to Manoj Kumar	45,000.00	45,000.00
vii	Amount Received From IIPC Project A/c-2730101004765	10,99,915.50	10,99,915.50
viii	Grant Refundable to MoE [OH-35 (Capital) and OH-36 (Salary)]	3,23,62,260.30	7,93,20,440.74
ix	Interest Earned on Grants Refundable to MOE	25,33,523.00	19,22,446.00
x	Amount Received from Unidentified Person	54,83,646.43	55,25,740.43
xi	Deposit from CBI	1,70,000.00	1,70,000.00
xii	UG & PG Summer Examination -2020	13,920.00	13,920.00
xiii	Amount Received from JUT	8,72,460.00	2,66,360.00
xiv	Tequip Fund Account	7,02,929.11	7,02,929.11
xv	Amount Received from AICTE	1,26,100.00	2,25,500.00
xvi	Amount payable to Mess Contractor		80,17,275.00
xvii	Amount received from JoSAA 2024	20,76,000.00	-
xviii	Amount received from Central Coalfields Ltd	2,00,000.00	-
c	Outstanding Account	4,75,66,369.00	-
d	CPDA Payable	70,113.00	-
e	Receipt against Sponsored Projects (Annexure-I of Schedule-3)	53,54,022.00	88,98,226.00
f	Receipt against Sponsored Fellowship & Scholarship (Annexure-II of Schedule 3)	38,04,048.00	14,79,993.00
g	Amount Received From LIC	20,410.00	-
h	Amount Received From NTA-UGC	1,26,740.00	-
i	Amount Received From UCIL	88,561.00	-
j	Statutory Liabilities		
i	LIC Premium	9,484.40	7,753.40
ii	TDS U/s 192A	29,50,548.00	39,98,318.00
iii	TDS U/s 194C	10,41,834.00	2,38,726.00
iv	TDS U/s 194J	3,55,954.00	13,11,009.00
v	Employees Loan Repayment	19,607.00	19,607.00
vi	Professional Tax on Salary	82,498.20	90,473.20
vii	New Pension Scheme (Employees Contribution)	7,64,467.00	8,90,464.00
viii	New Pension Scheme (Employer Contribution)	11,99,154.00	13,75,572.00
ix	CPF Deduction from Salary	-	-
x	CGST TDS (1%)	1,69,527.00	1,63,532.50
xi	SGST TDS (1%)	1,69,527.00	1,63,532.50
xii	IGST TDS (2%)	2,20,359.00	89,662.00
xiii	TDS U/s 194 I	4,236.00	-
7	Student Activity Fund	13,76,827.00	-
8	Student Medical Fund	9,29,996.00	-
9	Student Mess Fee Fund	17,91,548.00	-
		15,69,74,324.74	17,61,31,172.18



ANNEXURE-I TO SCHEDULE - 3: SPONSORED PROJECTS

Sr. No.	Name of the Project	Opening Balance		Receipts	Total	Expenditure	Closing Balance	
		Credit	Debit				Credit	Debit
		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)	6,432	-	2,33,257	2,39,689	2,33,058	6,631	-
6	Technical Education Quality Improvement Programme	18,704	-	-	18,704	-	18,704	-
7	Science Research Engineering Board (P.S.Mondal)	20,76,787	-	7,272	20,84,059	21,52,805	(68,746)	-
8	Project Development Institute-Nigeria	4,69,095	-	-	4,69,095	-	4,69,095	-
9	Science Research Engineering Board (D.Roy)	8,81,053	-	86,089	9,67,142	14,06,074	(4,38,932)	-
10	Science Research Engineering Board (A K Pramanik)	18,67,595	-	4,36,804	23,04,399	7,39,281	15,65,118	-
11	AICTE Project (D Roy)	13,21,445	-	-	13,21,445	11,93,584	1,27,861	-
12	AICTE-Atal FDP Workshop	-	-	-	-	-	-	-
13	Womens Technology Park	12,278	-	-	12,278	81,475	(69,197)	-
14	BHEL Project -CMERI	-	-	8,35,770	8,35,770	77,587	7,58,183	-
15	Women Scientist -DST	-	-	10,51,876	10,51,876	4,99,214	5,52,662	-
16	Baruipur Surgical Cluster, MSME West Bengal	-	-	11,09,687	11,09,687	9,21,881	1,87,806	-
	Total	88,98,226	-	37,60,755	1,26,58,981	73,04,959	53,54,022	-

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
		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	-	-	11,34,800	11,34,800	11,34,800	-	-
3	S N Sinha Memorial Scholarship	5,000	-	53,755	58,755	-	58,755	-
4	State Scholarship for Students	12,62,793	-	1,17,12,256	1,29,75,049	94,41,956	35,33,093	-
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	14,79,993	-	1,29,00,811	1,43,80,804	1,05,76,756	38,04,048	-





SCHEDULE - 4: FIXED ASSETS (CONSOLIDATED)

Sl. No	Assets Heads	Rate of Depreciation (%)	Gross Block				Depreciation for the Year				Net Block			
			Opening Balance 01.04.2023	Additions/ Re-classification	Deduction/ (Re-classification)	Closing Balance	Depreciation OB	Depreciation for the Year	Total Depreciation	As on 31.03.2024	As on 31.03.2023			
1	Land	0%	-	-	-	-	-	-	-	-	-	-	-	-
2	Site Development	0%	-	-	-	-	-	-	-	-	-	-	-	-
3	Buildings (New)	2%	54,05,77,980.00	-	-	54,05,77,980.00	1,63,89,872.36	1,08,11,559.60	2,72,01,431.96	51,33,76,548.04	52,41,88,107.64			
4	Building (Old)	2%	16,65,43,001.73	-	-	16,65,43,001.73	7,28,61,438.34	33,30,860.03	7,61,92,298.37	9,03,50,703.36	9,36,81,563.39			
5	Roads & Bridges	2%	4,51,166.00	-	-	4,51,166.00	18,046.64	9,023.32	27,069.96	4,24,096.04	4,33,119.36			
6	Severage & 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%	54,77,956.00	10,58,846.00	2,64,998.25	62,71,803.75	10,50,159.05	3,11,325.35	13,61,484.40	49,10,319.35	44,27,796.95			
9	Scientific & Laboratory Equipment	8%	7,46,41,853.00	1,96,97,856.00	19,32,000.00	9,24,07,709.00	1,08,08,362.64	73,79,176.72	1,81,87,539.36	7,42,20,169.64	6,38,33,490.36			
10	Office Equipment	7.5%	73,00,969.36	3,27,856.00	-	76,28,825.36	29,11,619.73	4,56,527.63	33,68,147.36	42,60,678.00	43,89,349.63			
11	Audio Visual Equipment	7.5%	28,72,650.00	10,71,033.24	-	39,43,683.24	6,24,674.57	2,99,173.50	9,23,848.07	30,19,835.17	22,47,975.43			
12	Computers & Peripherals	20%	2,95,22,393.00	5,26,480.00	19,70,451.20	2,80,78,421.80	2,12,08,555.80	45,51,726.00	7,57,60,281.80	23,18,140.00	83,13,837.20			
13	Furniture, Fixtures & Fittings	7.5%	2,73,23,823.89	57,83,240.20	-	3,31,07,064.09	2,36,60,569.58	8,02,449.02	2,44,63,018.60	86,37,998.14	36,57,206.95			
14	Vehicles	10%	65,63,829.00	-	-	65,63,829.00	52,20,424.90	4,72,811.00	56,93,235.90	8,70,593.10	13,43,404.10			
15	Lib. Books & Scientific Journals	10%	12,63,79,363.58	-	-	12,63,79,363.58	10,73,47,496.08	25,85,473.10	10,99,32,969.18	1,56,24,758.30	1,82,10,231.40			
16	Tube wells & Water Supply	2%	7,02,564.00	1,90,532.00	-	8,93,096.00	67,423.95	17,861.92	85,285.87	8,07,810.13	6,35,140.05			
17	Small Value Assets (Sports Equipment)	100%	1,27,023.00	-	-	1,27,023.00	1,27,023.00	-	1,27,023.00	-	-			
18	Equipment UNESCO AID	8%	24,97,217.00	-	-	24,97,217.00	24,97,217.00	-	24,97,217.00	-	-			
Total (A)			1,11,35,10,051.53	2,86,55,843.44	41,67,449.45	1,13,79,98,445.52	38,72,98,850.88	3,10,27,967.19	41,83,26,818.07	71,88,21,649.26	72,53,61,222.46			
19	Capital work in Progress (B)		47,23,83,373.00	5,11,69,072.00	-	52,35,52,445.00	-	-	-	52,35,52,445.00	47,23,83,373.00			

Sl. No	Intangible Assets	Rate of Depreciation (%)	Gross Block				Depreciation for the Year				Net Block	
			Opening Balance 01.04.2023	Additions	Deduction	Closing Balance	Depreciation OB	Depreciation for the Year	Total Depreciation	As on 31.03.2024	As on 31.03.2023	
20	Computer Software	40%	3,97,13,601.00	-	-	3,97,13,601.00	3,43,94,579.60	49,65,021.40	3,93,59,601.00	3,54,000.00	53,19,021.40	
21	E-Journals	40%	7,89,40,568.00	1,10,56,878.00	-	8,99,97,446.00	7,03,51,278.40	1,07,93,692.40	8,11,44,970.80	88,52,475.20	85,89,289.60	
22	Patents	5 Years	15,000.00	-	-	15,000.00	5,000.01	1,666.67	6,666.68	8,333.32	9,999.99	
Total (C)			11,86,69,169.00	1,10,56,878.00	-	12,97,26,047.00	10,47,50,858.01	1,57,60,380.47	12,05,11,238.48	92,14,808.52	1,39,18,310.99	
Grand Total (A+B+C)			1,70,45,62,593.53	9,08,81,793.44	41,67,449.45	1,79,12,76,937.52	49,20,49,708.89	4,67,88,347.66	53,88,38,056.55	1,25,15,88,902.78	1,21,16,62,906.45	



SCHEDULE - 4 (A): PLAN FIXED ASSETS

Sl. No	Assets Heads	Rate of Depreciation (%)	Gross Block				Depreciation for the Year				Net Block	
			Opening Balance 01.04.2023	Additions/ Re-classification	Deduction/ (Re-classification)	Closing Balance	Depreciation OB	Depreciation for the Year	Total Depreciation	As on 31.03.2024	As on 31.03.2023	
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 [From OH-35 (Capital) Grant]											
3-a	Buildings (New)	2%	54,05,77,980.00			54,05,77,980.00	1,63,89,872.36	1,08,11,559.60	2,72,01,431.96	51,33,76,548.04	52,41,88,107.64	
3-b	Building (Old)	2%	16,65,43,001.73			16,65,43,001.73	7,28,61,438.34	33,30,860.03	7,61,92,298.37	9,03,50,703.36	9,36,81,563.39	
4	Buildings [From HEFA Loan]	2%	-	-	-	-	-	-	-	-	-	
5	Roads & Bridges	2%	4,51,166.00			4,51,166.00	18,046.64	9,023.32	27,069.96	4,24,096.04	4,33,119.36	
6	Sevage & Drainage	2%	-	-	-	-	-	-	-	-	-	
7	Electrical installation and Equipment	5%	12,25,28,261.97			12,25,28,261.97	12,25,08,967.24		12,25,05,967.24			
8	Plant & Machinery	5%	52,54,569.00	10,58,846.00	2,64,998.25	60,48,416.75	10,08,726.75	3,00,156.00	13,08,882.75	47,39,534.00	42,45,842.25	
9	Scientific & Laboratory Equipment											
9-a	From OH-35 (Capital) Grant	8%	4,75,78,143.00	1,52,09,767.00	19,32,000.00	6,08,55,910.00	86,23,441.84	48,55,032.80	1,34,78,474.64	4,73,77,435.36	3,89,54,701.16	
9-b	From HEFA Loan	8%	2,70,14,150.00	44,88,089.00	-	3,15,02,239.00	21,61,132.00	25,20,179.12	46,81,311.12	2,68,20,927.88	2,48,53,018.00	
10	Office Equipment	7.5%	67,30,306.36	3,27,856.00		70,58,162.36	27,46,137.32	4,13,727.90	31,59,865.22	38,98,297.14	39,84,169.04	
11	Audio Visual Equipment	7.5%	25,78,910.00	10,71,033.24		36,49,943.24	4,57,786.82	2,77,143.00	7,34,929.82	29,15,013.42	21,21,123.18	
12	Computers & Peripherals	20%	2,61,14,972.00	5,26,480.00	19,70,451.20	2,46,71,000.80	1,78,75,408.60	44,96,051.80	2,23,71,460.40	22,99,540.40	82,39,563.40	
13	Furniture, Fixtures & Fittings	7.5%	2,71,49,775.89	57,83,240.20		3,29,33,016.09	2,35,91,093.10	7,89,395.42	2,43,80,488.52	85,46,480.22	35,52,635.43	
14	Vehicles	10%	65,63,829.00			65,63,829.00	52,20,424.90	4,72,811.00	56,93,235.90	8,70,593.10	13,43,404.10	
15	Lib. Books & Scientific Journals	10%	1,26,25,306.58			1,26,25,306.58	10,72,93,848.88	25,72,867.40	10,98,66,716.28	1,55,64,954.20	1,81,37,821.60	
16	Tube wells & Water Supply	2%	5,85,069.00	1,90,532.00		7,75,601.00	48,624.75	15,512.02	64,136.77	7,11,464.23	5,36,444.23	
17	Small Value Assets (Sports Equipment)	100%	1,27,023.00			1,27,023.00			1,27,023.00			
18	Equipment UNESCO AID	8%	24,97,217.00			24,97,217.00	24,97,217.00		24,97,217.00			
Total (A)			1,10,85,47,680.53	2,86,55,843.44	41,67,449.45	1,13,30,36,074.52	38,34,26,189.54	3,08,64,319.41	41,42,90,508.95	71,78,95,587.38	72,42,71,512.80	
19	Capital work in Progress (B)		47,23,83,373.00	5,11,69,072.00		52,35,52,445.00				52,35,52,445.00	47,23,83,373.00	
Grand Total (A+B+C)			1,69,95,85,222.53	9,08,81,793.44	41,67,449.45	1,78,62,99,566.52	48,81,72,047.54	4,66,23,033.21	53,47,95,080.75	1,25,06,54,507.58	1,21,05,63,196.80	
20	Intangible Assets											
20	Computer Software	40%	3,97,13,601.00			3,97,13,601.00	3,43,94,579.60	49,65,021.40	3,93,59,601.00	3,54,000.00	53,19,021.40	
21	E-Journals	40%	7,89,40,568.00	1,10,56,878.00		8,99,97,446.00	7,03,51,278.40	1,07,93,692.40	8,11,44,970.80	88,52,475.20	85,89,289.60	
22	Patents	9 Years										
Total (C)			11,86,54,169.00	1,10,56,878.00		12,97,11,047.00	10,47,45,858.00	1,57,58,713.80	12,05,04,571.80	92,06,475.20	1,39,08,311.00	





SCHEDULE - 4 (B): NON PLAN FIXED ASSETS

S.No	Assets Heads	Rate of Depreciation (%)	Gross Block				Depreciation for the Year				Net Block	
			Opening Balance 01.04.2023	Additions	Deduction	Closing Balance	Depreciation OB	Depreciation for the Year	Total Depreciation	As on 31.03.2024	As on 31.03.2023	
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	Sevrae & Drainage	2%	-	-	-	-	-	-	-	-	-	
7	Electrical installation and Equipment	5%	-	-	-	-	-	-	-	-	-	
8	Plant & Machinery	5%	2,23,387.00	-	-	2,23,387.00	41,432.30	11,169.35	52,601.65	1,70,785.35	1,81,954.70	
9	Scientific & Laboratory Equipment	8%	49,560.00	-	-	49,560.00	23,788.80	3,964.80	27,753.60	21,806.40	25,771.20	
10	Office Equipment	7.5%	5,70,663.00	-	-	5,70,663.00	1,65,482.41	42,799.73	2,08,282.14	3,62,380.86	4,05,180.59	
11	Audio Visual Equipment	7.5%	2,93,740.00	-	-	2,93,740.00	1,66,887.75	22,030.50	1,88,918.25	1,04,821.75	1,26,852.25	
12	Computers & Peripherals	20%	34,07,421.00	-	-	34,07,421.00	33,33,147.20	55,674.20	33,88,821.40	18,599.60	74,273.80	
13	Furniture, Fixtures & Fittings	7.5%	1,74,048.00	-	-	1,74,048.00	69,476.48	13,053.60	82,530.08	91,517.92	1,04,571.52	
14	Vehicles	10%	-	-	-	-	-	-	-	-	-	
15	Lib. Books & Scientific Journals	10%	1,26,057.00	-	-	1,26,057.00	53,647.20	12,605.70	66,252.90	59,804.10	72,409.80	
16	Tube wells & Water Supply	2%	1,17,495.00	-	-	1,17,495.00	18,799.20	2,349.90	21,149.10	96,345.90	98,695.80	
17	Small Value Assets	100%	-	-	-	-	-	-	-	-	-	
18	Equipment - UNESCO Aid	8%	49,62,371.00	-	-	49,62,371.00	38,77,661.34	1,63,647.78	40,36,309.12	9,26,061.88	10,89,709.66	
17	Capital work in Progress	-	-	-	-	-	-	-	-	-	-	
Intangible Assets			Gross Block				Depreciation for the Year				Net Block	
S.No		Rate of Depreciation	Opening Balance 01.04.2023	Additions	Deduction	Closing Balance	Depreciation OB	Depreciation for the Year	Total Depreciation	As on 31.03.2024	As on 31.03.2023	
18	Computer Software	40	-	-	-	-	-	-	-	-	-	
19	E-Journals	40	-	-	-	-	-	-	-	-	-	
20	Patents	9 Years	15,000.00	-	-	15,000.00	5,000.01	1,666.67	6,666.68	8,333.32	9,999.99	
Total (C)			15,000.00	-	-	15,000.00	5,000.01	1,666.67	6,666.68	8,333.32	9,999.99	
Grand Total (A+B+C)			49,77,371.00	-	-	49,77,371.00	38,77,661.35	1,65,314.45	40,42,975.80	9,34,395.20	10,99,709.65	



SCHEDULE - 7: CURRENT ASSETS

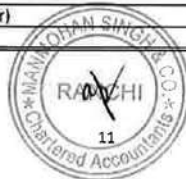
		PARTICULAR	FY 2023-24	FY 2022-23
1	Sundry Debtors:			
a	Debts outstanding for a period exceeding six months		5,14,152.68	5,14,152.68
2	Cash and Bank Balances			
a	In Saving Accounts			
i	Canara Bank SB A/c No. 2730101006939 (IRG)		4,95,97,798.29	9,38,65,007.80
ii	Bank of Maharashtra - 60427666707		6,68,774.00	-
iii	SBI Hatia SB A/c No.-11026359877 (O.B) (Closed)			-
iv	Canara Bank SB A/c No. 2730101011451 (OH-31)		77,51,517.04	3,11,10,731.75
v	Canara Bank SB A/c No. 2730101011452 (OH-36)		1,87,00,094.83	4,33,11,011.83
vi	Canara Bank SB A/c No. 2730101011453 (OH-35)		2,04,88,940.00	1,43,69,164.00
vii	Canara Bank SB A/c. No.2730101012429 (SERB Project II)		20,06,280.00	29,62,935.00
viii	Canara Bank SB A/c.No.2730101011923 (SERB Project I)		6,114.00	2,367.00
ix	Canara Bank Escrow A/c -2730101012032 (Principal Payment Account)		1,54,50,073.07	14,82,937.00
x	Canara Bank Escrow A/c -2730101012033 (Interest Payment Account)		29,262.00	3,442.00
xi	Canara Bank Escrow A/c -2730101012029 (Fees Receivable Account)		-	-
xii	Canara Bank Escrow A/c -2730101012031 (Grant Receivable Account)		66,361.00	65,416.00
xiii	Canara Bank A/c.No.-2730101001031 (Allumni Cell)		49,713.40	48,296.40
xiv	Canara Bank SB A/c.No. 2730101012610 (Online)		9,04,765.50	11,70,817.61
xv	SBI online Account-38979437865		64,27,931.08	64,60,359.48
xvi	HDFC Fees Receipt Account		2,98,58,117.00	34,31,408.00
xvii	SBI (FLC) A/c-41773834634		2,81,990.00	1,00,000.00
3	Cash			
a	Cash in hand		110.00	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		1,41,487.00	1,38,113.00
6	Grant Receivable from MoE - HEFA Interest		19,82,002.00	-
7	Grant Receivable from MoE - OH-31 Grant		93,88,877.22	-
TOTAL			16,51,26,184.11	19,98,48,093.55





SCHEDULE - 8: LOANS, ADVANCES & DEPOSITS

	FY 2023-24	FY 2022-23
1 Advances to Employees: (Non Interest Bearing)		
a Expenses Advance	6,49,150.00	5,75,915.00
b Festival Advance		-
c Leave Travel Concession Advance	3,34,249.00	1,60,766.00
d Medical Advance	5,12,188.00	7,72,188.00
e Travelling Advance	2,28,327.00	78,327.00
f Rolling Advance	4,32,806.00	2,78,820.00
g CPDA Advance	3,73,135.00	6,34,824.00
h Conference Advance	25,020.00	
2 Advances to Employees: (Interest Bearing)		
a Computer Advance	30,800.00	76,300.00
b Car/Motorcycle/Scooter Advance		-
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	16,00,000.00
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	2,60,000.00
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	3,38,73,670.00	3,30,73,625.00
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)	11,95,28,054.00	12,08,60,947.00
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 Engine Ltd.	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	5,31,000.00
n Roshni Kumari	-	12,000.00
o Vikash Prasad	-	35,000.00
p Software Technology Park of India	4,00,000.00	
q Johnson Control Hitachi air conditioning india pvt ltd	79,301.00	
4 Prepaid Expense		
a Pre Paid Internet Expenses	5,39,708.50	10,79,417.00
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	17,21,261.00
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	65,21,899.53	65,21,899.53
g Deposits Against FLC-140048019952	5,82,175.00	5,48,613.00
h Security Deposit-Alpha Indane Gas Agency	13,000.00	-
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	-	-
g Amount Receivable from Ankit Sharma	-	200.00
h Amount Receivable from Vikash Kumar (CCC)	100.00	100.00
i Medical Reimbursement Receivable (Aditya Kumar)	1,15,397.00	1,15,397.00
	17,43,55,980.56	17,50,44,339.06



NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

HATIA, RANCHI - 834 003

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON 31ST MARCH, 2024

INCOME		Schedule	Current Year 2023-24	Previous Year 2022-23
ACADEMIC RECEIPTS	9	3,04,15,915.00	4,99,56,534.00	
GRANTS AND SUBSIDIES (OH-31 and OH-36 from MOE)	10	36,13,74,731.67	36,43,47,100.26	
INCOME FROM INVESTMENT	11	-	-	
INTRST EARNED	12	17,20,719.00	14,21,486.00	
OTHER INCOME	13	16,29,788.50	2,64,79,370.26	
PRIOR PERIOD INCOME	14	-	-	
TOTAL INCOME (A)		39,51,41,154.17	44,22,04,490.52	
EXPENDITURE		Schedule	Current Year 2023-24	Previous Year 2022-23
STAFF PAYMENT & BENEFITS (Establishment Expenses)	15	31,03,97,177.70	30,62,51,441.71	
ACADEMIC EXPENSES	16	1,05,98,975.00	4,06,43,955.82	
ADMINISTRATIVE AND GENERAL EXPENSES	17	3,52,24,789.98	3,43,95,063.10	
TRANSPORTATION EXPENSES	18	8,33,958.00	9,29,738.00	
REPAIR & MAINTENANCE EXPENSES	19	52,83,293.50	93,98,552.63	
FINANCE COSTS	20	-	-	
DEPRECIATION	4	4,67,88,347.66	5,50,81,931.70	
OTHER EXPENSES	21	-	-	
PRIOR PERIOD EXPENSES	22	12,28,943.48	-	
TOTAL EXPENDITURE (B)		41,03,55,485.32	44,67,00,682.96	
Balance Being Excess of Income over Expenditure (A-B)		(1,52,14,331.15)	(44,96,192.44)	
Transfer to / from Designated Fund		-	-	
Balance Being Surplus/(Deficit) Carried to Capital Fund		(1,52,14,331.15)	(44,96,192.44)	

Significant Accounting Policies
Contingent Liabilities & Notes to Accounts

23
24

K. P. Panigrahi
31.05.24
K. P. Panigrahi
Dy. Registrar

Amind Pantar
31.05.2024
Prof. P. P. Chatteropadhyay
Registrar i/c

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

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

For M/s Mannohan Singh & Co.
Chartered Accountants



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



SCHEDULE - 9: ACADEMIC RECEIPTS

PARTICULAR		FY 2023-24	FY 2022-23
FEES FROM STUDENTS			
1 Academic			
a	Admission Fee - Institute	2,55,400.00	17,500.00
b	Application Fee	20,000.00	1,38,769.00
c	Computer Fee		9,46,860.00
d	Grade Card Fee	6,150.00	5,700.00
e	Library Access Fee		9,47,500.00
f	Registration/Enrolment Fee	3,81,300.00	2,07,300.00
g	Seat Rent		17,65,800.00
h	Tuition Fees		4,04,29,613.00
i	Institute Fee	2,22,32,595.00	
	Total (A)	2,28,95,445.00	4,44,59,042.00
2 Examinations			
a	Examination Fee-Institute	9,92,600.00	4,76,700.00
b	Examination Fee-Ranchi University		3,000.00
c	Examination Fees-Jharkhand Technical University		52,900.00
	Total (B)	9,92,600.00	5,32,600.00
3 Other Fees			
a	Fines & Penalties		90,092.00
b	Gymkhana Fee		2,83,950.00
c	Hostel Fee		7,800.00
d	Hostel Maintenance Fee (Establishment Charges)	30,45,400.00	37,80,900.00
e	Identity Card Fee (Re-issued)	50.00	-
f	Other Fee (Computer,Internet Access, Library)	33,75,100.00	2,84,050.00
g	Medical Fee		5,18,000.00
h	Seminar/Thesis Fees		-
i	Exam Paper Evaluation Fees		100.00
J	Processing Fee	13,000.00	
k	Thesis Fee	8,200.00	
l	Late Fine	86,120.00	
	Total (C)	65,27,870.00	49,64,892.00
	GRAND TOTAL (A+B+C)	3,04,15,915.00	4,99,56,534.00



SCHEDULE -10: GRANTS

PARTICULAR	Govt. of India(MOE)		FY 2023-24	FY 2022-23
	Plan*	Non Plan		
Grant of MOE (Closing Balance) for 2022-23 (b/f)	3,30,222.00	7,89,90,218.74	7,89,90,218.74	7,91,37,319.00
Add: Adjustment made during the Year 2023-24	1,91,85,929.00			
Effective Utilisation of Grant after adjustment	1,95,16,151.00			
Add: Receipts during the Year 2023-24	8,50,00,000.00	28,50,00,000.00	28,50,00,000.00	36,42,00,000.00
Less: Amount Utilised during 2023-24	8,41,58,255.00	36,13,74,731.67	36,13,74,731.67	36,43,47,100.26
Grant of MOE (Closing Balance) for 2023-24 (c/f)	2,03,57,896.00	26,15,487.08	26,15,487.08	7,89,90,218.74
Total			36,13,74,731.67	36,43,47,100.26

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

SCHEDULE - 11: INCOME FROM INVESTMENTS

PARTICULAR	FY 2023-24	FY 2022-23
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 2023-24	FY 2022-23
1. Interest on Saving Account with scheduled banks			16,65,599.00	-
Less: Interest earned on Govt.fund transferable to MOE				
2. Interest Earned as Income	-	-	-	13,96,666.00
3. Interest on Loans of Employees			55,120.00	24,820.00
Total (2+3)			17,20,719.00	14,21,486.00





SCHEDULE - 13: OTHER INCOME

PARTICULAR	FY 2023-24	FY 2022-23
A. Income from Land & Buildings		
1. Electricity Charges Recovered	1,27,901.50	2,33,067.00
2. Rent Recovered	2,09,715.00	2,83,780.00
3. License Fee Recovered	8,36,203.00	7,76,807.00
4. Water Charges Recovered	2,178.00	1,684.00
5. Rent for Ground	10,000.00	-
6. Rent for Auditorium	-	-
7. Rent of Cafeteria	2,400.00	9,600.00
Total (A)	11,88,397.50	13,04,938.00
B. Others		
1. Others Incomes		
a) Bus Charges Recovery	2,78,820.00	2,99,509.00
b) Certificate Verification & Transcript Fee	24,000.00	51,000.00
c) Liquidity Damage		4,781.00
d) Interest Earned on FLC	36,936.00	
2. Income From Consultancy		38,335.00
3. Misc. Receipts		20,662.26
4. Recruitment Fees		1,33,900.00
5. RTI Fees	160.00	200.00
6. Mess Fees		2,45,98,125.00
7. Fine and Penalty Recovery from Suppliers		7,000.00
8. Tribble Area Allowance Recovery		20,920.00
9. Other Income	17,775.00	-
10. Donation		-
11. Ticket Cancellation Refund		-
12. Overhead From Project	-	
13. Institute Facility Charges	44,200.00	
14. NCAMA Registration Fee	39,500.00	
Total (B)	4,41,391.00	2,51,74,432.26
Grand Total (A+B)	16,29,788.50	2,64,79,370.26



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

PARTICULAR	FY 2023-24			FY 2022-23		
	Plan	Non Plan	Total	Plan	Non Plan	Total
1. Salaries and Wages						
a) Salaries and Wages(Teaching & Non Teaching)	-	16,42,91,159.00	16,42,91,159.00	-	15,51,67,558.00	15,51,67,558.00
b) Salary Arrear	-	33,56,145.00	33,56,145.00	-	45,95,035.00	45,95,035.00
2. Allowance and Bonus	-	-	-	-	-	-
3. Retirement and Terminal Benefits						
a) Composite Transfer/TA Grant	-	-	-	-	2,93,786.00	2,93,786.00
b) Encashment of Leave	-	27,12,090.00	27,12,090.00	-	18,82,718.00	18,82,718.00
c) Leave Salary & Pension Contribution	-	4,70,948.00	4,70,948.00	-	4,62,426.00	4,62,426.00
d) Earned Leave	-	-	-	-	29,05,700.00	29,05,700.00
e) Payment of Gratuity	-	33,70,721.00	33,70,721.00	-	28,72,091.00	28,72,091.00
f) Pension	-	6,95,34,575.00	6,95,34,575.00	-	7,17,96,508.00	7,17,96,508.00
g) Commutation	-	32,01,560.00	32,01,560.00	-	7,53,193.00	7,53,193.00
h) Arrear to Pensioner	-	20,36,745.00	20,36,745.00	-	9,93,340.00	9,93,340.00
4. Leave Travel Concession facilities	-	11,50,755.00	11,50,755.00	-	13,44,671.00	13,44,671.00
5. Medical Facility	-	21,79,665.00	21,79,665.00	-	49,44,331.00	49,44,331.00
6. Children Education Allowance	-	11,56,050.00	11,56,050.00	-	12,00,000.00	12,00,000.00
7. Honorarium	-	5,000.00	5,000.00	-	5,000.00	5,000.00
8. Telephone Facility	-	5,56,577.00	5,56,577.00	-	3,67,016.00	3,67,016.00
9. CPDA Allowance	-	34,11,490.70	34,11,490.70	-	17,33,582.00	17,33,582.00
10. Staff Development & Training Expenses	-	1,14,856.00	1,14,856.00	-	14,000.00	14,000.00
11. Payment to Adhoc Staff	-	-	-	-	-	-
a) Salary to Contractual Faculty	-	44,29,325.00	44,29,325.00	-	94,61,229.00	94,61,229.00
b) Everest Human Resource-Manpower Supply	-	1,91,14,813.00	1,91,14,813.00	-	1,96,10,542.00	1,96,10,542.00
c) Bull Fighter Security-Manpower Supply	-	2,05,93,432.00	2,05,93,432.00	-	1,71,63,703.71	1,71,63,703.71
d) Salary-Lakhan Rajak	-	-	-	-	-	-
e) Housekeeping & Sanitation	-	86,94,943.00	86,94,943.00	-	86,22,748.00	86,22,748.00
f) Other Services Outsourcing	-	16,328.00	16,328.00	-	62,264.00	62,264.00
TOTAL	-	31,03,97,477.70	31,03,97,177.70	-	30,62,51,441.71	30,61,89,177.71





SCHEDULE - 16: ACADEMIC EXPENSES

PARTICULAR	FY 2023-24			FY 2023-24		
	Plan	Non Plan	Total	Plan	Non Plan	Total
1. Examination Expenses	-	2,30,278.00	2,30,278.00	-	2,48,051.00	2,48,051.00
2. Payment to Visiting Faculty	-	4,17,600.00	4,17,600.00	-	2,02,900.00	2,02,900.00
3. Admission Expenses	-	77,693.00	77,693.00	-	18,710.00	18,710.00
4. Stipend /Merit Cum Means Scholarship	-	-	-	-	-	-
a) Merit-Cum-Means Scholarship	-	13,94,000.00	13,94,000.00	-	-	-
b) Scholarship to M.Tech Students	-	-	-	-	3,72,000.00	3,72,000.00
c) Stipend to Advanced Diploma Course Students	-	24,20,300.00	24,20,300.00	-	43,70,000.00	43,70,000.00
d) Stipend to PhD Scholars	-	26,73,998.00	26,73,998.00	-	53,23,866.00	53,23,866.00
5. Student Welfare Expenses	-	-	-	-	-	-
a) Students Technical Activity	-	8,363.00	8,363.00	-	-	-
b) Student Sports Activity	-	66,252.00	66,252.00	-	-	-
c) Students Recreation Activities	-	-	-	-	48,635.00	48,635.00
d) Medical Insurance of Students	-	1,387.00	1,387.00	-	4,28,104.00	4,28,104.00
6. Laboratory & Workshop Expenses	-	8,88,995.00	8,88,995.00	-	14,55,685.82	14,55,685.82
7. Participation in Seminar & Conferences	-	-	-	-	-	-
8. Seminar/Workshop/Conference Expenses	-	24,876.00	24,876.00	-	9,04,353.00	9,04,353.00
9. Other Academic Expenses	-	1,39,367.00	1,39,367.00	-	-	-
10. Deemed University Fees	-	-	-	-	-	-
11. Subscription/Membership Fees	-	-	-	-	-	-
12. Financial Assistance for Courses/Seminar	-	-	-	-	-	-
13. NIAMT Registration Expenses	-	-	-	-	-	-
14. Membership Fees	-	-	-	-	-	-
15. IRG Expenditure	-	-	-	-	-	-
a). Examination Expenses-IRG	-	-	-	-	1,66,200.00	1,66,200.00
b). Mess Bill Reimbursement	-	-	-	-	2,65,37,089.00	2,65,37,089.00
c). Seminar/Thesis Expenses	-	16,83,130.00	16,83,130.00	-	-	-
d). Student Medical Expenditure	-	-	-	-	1,44,533.00	1,44,533.00
e). Students Activity Gymkhana	-	2,36,619.00	2,36,619.00	-	2,19,753.00	2,19,753.00
f). Alumni Cell Expenses	-	24,922.00	24,922.00	-	2,04,076.00	2,04,076.00
g). Other Expenditure	-	3,11,195.00	3,11,195.00	-	-	-
TOTAL	-	1,05,98,975.00	1,05,98,975.00	-	4,06,43,955.82	4,06,43,955.82



SCHEDULE - 17: ADMINISTRATIVE AND GENERAL EXPENSES

PARTICULAR	FY 2023-24			FY 2022-23		
	Plan	Non Plan	Total	Plan	Non Plan	Total
1) Infrastructure						
a) Electricity & Power						
a) D.G. Set Fuel Expenses		6,75,410.00	6,75,410.00	-	10,77,423.00	10,77,423.00
b) Jharkhand Bijli Vitran Nigam Ltd.		1,02,67,593.00	1,02,67,593.00	-	91,05,211.00	91,05,211.00
b) Rent, Rates and Taxes			-			-
a) Lease Rent to M/s HEC Ltd.		51,804.00	51,804.00	-	52,000.00	52,000.00
b) Municipal Tax		20,99,237.00	20,99,237.00	-	34,98,351.00	34,98,351.00
2) Communication						
a) Telephone, Fax and Internet Charges						
a) M/s BSNL			-	-	54,459.00	54,459.00
b) Other Mobile & Landline		2,12,647.44	2,12,647.44	-	49,826.20	49,826.20
c) Internet Leased Line		9,77,350.00	9,77,350.00	-	9,77,349.00	9,77,349.00
b) Postage & Stationery Expenses			-	-	-	-
3) Others Expenditure						
I) Advertisement & Publicity		2,34,187.00	2,34,187.00			10,03,916.00
			-	-		
II) Hospitality Expenses	-	61,230.00	61,230.00	-	4,30,855.00	4,30,855.00
III) Internal & CAG Auditor Remuneration	-	2,65,500.00	2,65,500.00	-	4,58,722.00	4,58,722.00
IV) Housekeeping & Sanitation	-	2,06,106.00	2,06,106.00	-		-
V) Printing & Stationary (Consumption)	-	7,74,868.00	7,74,868.00	-	8,41,081.00	8,41,081.00
VI) Security Expenses (a)		1,35,264.00	1,35,264.00	-		-
<i>Jharkhand Home Guards (b)</i>		83,16,000.00	83,16,000.00		81,48,250.00	81,48,250.00
VII) Sitting Charges for Meetings	-	6,01,480.00	6,01,480.00	-	4,86,824.00	4,86,824.00
VIII) Travelling & Conveyance	-	11,37,783.34	11,37,783.34	-	10,79,621.80	10,79,621.80
IX) Legal Expenses	-		-	-	2,27,290.00	2,27,290.00
X) Bank Charges	-	22,523.98	22,523.98	-	9,156.60	9,156.60
XI) Miscellaneous Expenditure	-	21,027.22	21,027.22	-	100.00	100.00
XII) Gardning & Horticulture	-	26,590.00	26,590.00	-	29,580.00	29,580.00
XIII) Office & Departmental Expenses (NIAMT)	-	18,02,701.00	18,02,701.00	-	26,55,861.56	26,55,861.56
XIV) Admin Function/Event	-	48,88,735.00	48,88,735.00	-	29,96,298.94	29,96,298.94
XV) Other Professional Fees	-	19,60,725.00	19,60,725.00	-	12,12,887.00	12,12,887.00
XVI) Guest House Expenses		1,10,423.00	1,10,423.00			
XVII) Hostel Management Expenses		3,75,605.00	3,75,605.00			
TOTAL	-	3,52,24,789.98	3,52,24,789.98	-	3,33,91,147.10	3,43,95,063.10





SCHEDULE- 18: TRANSPORTATION EXPENSES

PARTICULAR	FY 2023-24		FY 2022-23	
	Plan	Non Plan	Total	Total
1. Vehicles (Owned by Institutions)				
a) Insurance Expenses	-	1,84,128.00	1,84,128.00	2,18,022.00
b) Running Expenses (Fuel)	-	4,51,551.00	4,51,551.00	4,31,699.00
c) Vehicles Repairs & Maintenance	-	1,92,620.00	1,92,620.00	2,80,017.00
2. Vehicles Hiring Expenses	-	5,659.00	5,659.00	-
Total	-	8,33,958.00	8,33,958.00	9,29,738.00

SCHEDULE- 19: REPAIRS & MAINTENANCE

PARTICULAR	FY 202-24		FY 2022-23	
	Plan	Non Plan	Total	Total
1. Annual Maintenance Cost				
a) AMC of Others	-	2,13,464.00	2,13,464.00	57,18,469.63
b) AMC of Equipment	-	1,31,421.00	1,31,421.00	-
c) AMC of Water Purifiers	-	1,80,770.00	1,80,770.00	1,70,520.00
d) AMC of Software	-	6,50,040.00	6,50,040.00	-
2. Building Maintenance (Civil)	-	8,73,322.00	8,73,322.00	12,16,306.00
3. Cleaning Material & Services	-	80,818.00	80,818.00	28,637.00
4. Computer Maintenance	-	37,226.00	37,226.00	20,380.00
5. Electrical Maintenance	-	10,30,264.00	10,30,264.00	8,51,947.00
6. Furniture & Fixtures Maintenance	-	1,19,873.00	1,19,873.00	3,70,953.00
7. Office Equipments Maintenance	-	18,682.00	18,682.00	27,945.00
8. Repair & Maintenance-Others	-	-	-	-
9. Provision Write-off	-	-	-	-
10. Plant & Machinery Maintenance	-	3,39,467.00	3,39,467.00	9,93,395.00
11. Software License Renewal	-	16,07,946.50	16,07,946.50	-
Total	-	52,83,293.50	52,83,293.50	93,98,552.63



SCHEDULE- 22: Prior Period Expenses

PARTICULAR	FY 2023-24		FY 2022-23	
	Plan	Non Plan	Total	Total
Prior Period Expenses :				
DR Pension Arrear	-	5,93,181.00	5,93,181.00	-
Manpower Outsourcing	-	3,04,981.00	3,04,981.00	-
Pension Arrear	-	10,218.00	10,218.00	-
Travelling & Conveyance	-	3,06,457.48	3,06,457.48	-
Misc. Expenses	-	2,065.00	2,065.00	-
Telephone Reimbursement	-	12,041.00	12,041.00	-
Total	-	12,28,943.48	12,28,943.48	-





NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY
HATIA, RANCHI - 834 003

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED ON 31ST MARCH, 2024

RECEIPTS		Sch. No.	Current Year 2023-24	Previous Year 2022-23	PAYMENTS		Sch. No.	Current Year 2023-24	Previous Year 2022-23
I. Opening Balances					I. Expenses				
A) Cash Balances			110.00		1. Non Plan Expenses		29	15,12,02,061.00	21,03,73,516.00
B) Bank Balances					1. Staff Payments & Benefits (Est. Expenses)			1,33,375.00	
In Savings Accounts					2. Academic Expenses			6,58,59,525.30	
SB A/c No. 2730101006939 (IRG)			9,38,65,007.80	2,92,40,305.28	3. Administrative and General Expenses			8,93,378.16	
Canara Bank online A/c. 2730101012610			11,70,817.61	21,75,388.17	4. Transportation Expenses			59,950.00	
HDFC Online Fees A/c. (50100537085095)			34,31,408.00	-	5. Repair & Maintenance			-	
Canara Bank SB A/c No. 2730101012031 (Escrow A/c)			65,416.00	63,553.00	II. Payments Against Sponsored Projects	30-A	13,399.00	1,96,756.00	
Canara Bank SB A/c No. 2730101011451(OH-31)			3,11,10,731.75	3,82,39,741.75	III. Payments Against Sponsored Fellowship/Scholarship	30-B	11,34,800.00	7,68,000.00	
Canara Bank SB A/c No. 2730101011452(OH-36)			4,33,11,011.83	5,78,81,468.83	IV. Expenditure on Fixed Assets				
Canara Bank SB A/c No. 2730101011453(OH-35)			1,43,69,164.00	1,52,98,033.00	1. Plan Fixed Assets	31	33,41,337.00	76,65,716.00	
Canara Bank SB A/c No. 2730101011323(SERB Project I)			2,367.00	11,323.00	2. Non Plan Fixed Assets				
Canara Bank SB A/c No. 2730101012032 (Principal A/c)			14,82,937.00	1,63,72,148.00	V. Interest on Loan of Employees/Staff				
Canara Bank SB A/c No. 2730101012429(SERB Project II)			29,62,935.00	60,53,326.00	VI. Loans, Advances and Deposits	32	2,24,66,658.00	9,30,13,875.00	
Canara Bank SB A/c No. 2730101012033 (Escrow A/c.)			3,442.00	2,770.00	VII. Other Payments	33	30,42,24,514.86	26,20,92,643.80	
Canara Bank SB A/c No. 2730101001031 (Allumni Cell)			48,296.40	46,921.40	VIII. Loan From HEFA				
SBI online Account-38979437865			64,60,359.48	30,18,107.88	IX. Current Assets				
SBI (FLC) A/c-41773834634			1,00,000.00	-	Term Deposit				
II. Grants Received					Allumni Fund Investment				
From Government of India(MOE)					TDS Receivable				
1. Plan Grant (OH-35)			8,50,00,000.00	11,35,00,000.00					
2. Non Plan Grant (OH-31 and OH-36)			28,50,00,000.00	36,42,00,000.00					
III. Academic Receipts		25	2,94,79,175.00	2,96,04,667.00					
1. Academic			5,26,600.00	5,01,100.00					
2. Examination			1,32,620.00	2,17,34,892.00					
3. Other Fees									
IV. Receipts Against Sponsored Projects		3-I	26,01,782.00	6,70,141.00					
V. Receipt Against Sponsored Fellowship/Scholarship		3-II	1,28,48,591.00	52,60,225.00					



NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY
HATIA, RANCHI - 834 003

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED ON 31ST MARCH, 2024

RECEIPTS	Sch. No.	Current Year 2023-24	Previous Year 2022-23	PAYMENTS	Sch. No.	Current Year 2023-24	Previous Year 2022-23
VI. Interest Received on				X. Closing Balances			
1. On SB Accounts		16,65,599.00	13,42,626.00	A) Cash Balances		110.00	110.00
2. On Loans & Advances		55,120.00	24,820.00	B) Bank Balances			
				In Savings Accounts			
				Canara Bank SB A/c No. 2730101006999 (IRG)		4,95,97,798.29	9,38,65,007.80
				Canara Bank online A/c. 2730101012610		9,04,765.50	11,70,817.61
				HDFC Online Fees A/c.(50100537085095)		2,98,58,117.00	34,31,408.00
				SBI (FLC) A/c-41773834634		2,81,990.00	1,00,000.00
VII. Other Income				Canara Bank SB A/c No. 2730101011451(OH-31)		77,51,517.04	3,11,10,731.75
1. Other Income	26	1,34,31,861.50	2,21,56,385.16	Canara Bank SB A/c No. 2730101011452(OH-36)		1,87,00,094.83	4,33,11,011.83
				Canara Bank SB A/c No. 2730101011453(OH-35)		2,04,88,940.00	1,43,69,164.00
VIII. Miscellaneous receipts				Canara Bank SB A/c No. 2730101011923(SERB Project I)		6,114.00	2,367.00
				Canara Bank SB A/c No. 2730101012032 (Principal A/c)		1,54,50,073.07	14,82,997.00
				Canara Bank SB A/c No. 2730101012429(SERB Project II)		20,06,280.00	29,62,995.00
				Canara Bank SB A/c No. 2730101012033 (Escrow A/c.)		29,262.00	3,442.00
				Canara Bank SB A/c No. 2730101001031 (Allumni Cell)		49,713.40	48,296.40
IX. Deposits & Advances	27	9,86,22,163.00	6,95,34,491.36	Canara Bank SB A/c No. 2730101012031 (Escrow A/c)		66,361.00	65,416.00
				SBI Online Account -38979437865		64,27,931.08	64,60,359.48
X. Earmarked Fund	28	13,59,095.00	74,67,405.00	Bank of Maharashtra- 60427666707		6,68,774.00	-
				TOTAL		73,14,11,136.37	80,44,01,213.83
XI. Receivable from MoE For HEFA Interest		23,04,526.00	1,375.00				
TOTAL		73,14,11,136.37	80,44,01,213.83				

For M/s Manmohan Singh & Co.
Chartered Accountants



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

Prof. P. Chattopadhyay
31-05-24
Director

Prof. Arvind Pandey
31.05.2024
Registrar

K. P. Panigrahi
31/05/24
Dy. Registrar

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

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

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

**SCHEDULE - 25: ACADEMIC RECEIPTS**

PARTICULARS	AMOUNT
1. Academic	
a. Admission Fee	22,400.00
b. Application Fee	20,000.00
c. Computer, Internet access & Library Fee	24,50,950.00
d. Grade & Identity Card Fee	6,200.00
e. Thesis Fees	8,200.00
f. Registration/Enrolment Fee	2,18,200.00
g. Seat Rent	18,80,400.00
h. Institute Tuition Fees	2,48,59,825.00
i. Processing Fees	13,000.00
(1) Sub Total	2,94,79,175.00
2. Examination Fees	
a. Examination Fees-Institute	5,26,600.00
(2) Sub Total	5,26,600.00
3. Other Fees	
a. Fine & Penalties	1,32,620.00
(3) Sub Total	1,32,620.00



SCHEDULE - 26: OTHER INCOME

PARTICULARS	AMOUNT
1. Other	
a. Bus Charges Recovery	2,63,220.00
b. Certificate/Transcript verification fees	24,000.00
c. Misc. Receipts (sale of Tender Form etc.)	-
d. RTI Fees	160.00
e. Mess Fees	1,19,63,764.00
f. Recruitment Fees	-
g. Other Income	1,54,300.00
2. Income from Land & Building	
a. Electricity charges Recovered	1,19,917.50
b. Rent Recovered	2,09,715.00
c. Licence Fees	6,82,437.00
d. Water Charges Recovery	1,948.00
e. Rent of Cafeteria	2,400.00
f. Rent from Ground	10,000.00
TOTAL	1,34,31,861.50





SCHEDULE - 27: MISCELLANEOUS RECEIPT INCLUDING LIABILITIES	
PARTICULARS	AMOUNT
1. Deposit From Staff	10,30,875.00
2. Deposit From Student	
a. Caution Money	6,96,000.00
3. Statutory Liabilities	
a. GPF Deduction from Salary	1,29,96,616.00
b. GIS Premium	22,325.00
c. LIC Premium	10,75,983.00
d. New Pension Scheme (Employees Contribution)	56,38,208.00
e. New Pension Scheme (Employers Contribution)	78,93,382.00
f. Professional Tax on Salary	1,90,092.00
g. TDS Payable U/sec. 192A	2,67,91,371.00
h. TDS Payable U/sec. 194C	93,988.00
i. TDS Payable U/sec. 194J	6,273.00
j. CGST TDS 1%	
k. SGST TDS 1%	
l. IGST TDS 2%	59,719.00
4. Other Current Liability	
i. Indian Statistical Institute	
ii. NIFFT Alumni Association	
iii. Amount Received From Unidentified Person	
iv. Expense Payable	
v. Interest transferable to MOE	
vi. Amount Received from AICTE	
vii. Amount Received from JUT (Conduct Examination)	
viii. LIC Claim (R K Mishra)	
ix. Tequip Account Fund	
x. Hostel Establishment Fund	75,64,500.00
xi. Student Activity Fund	3,74,100.00
xii. Student Medical Fund	5,50,000.00
xiii. Student Mess Fee Fund	96,95,944.00
xiv. Higher Education Finance	58,632.00
xv. Received from LIC	20,410.00
xvi. Received from NTA UGC	1,26,740.00
xvii. Received from SERB TRMM Conference	3,50,000.00
xviii. Received from UCIL	88,561.00
5. Other Liabilities	
Amount Received From AICTE	19,800.00
Amount Received From DASA -2023	72,500.00
Amount Received From JOSA (CSAB)2024	1,68,52,000.00
Amount Received From Post Office, Doranda	58,953.00
Amount Received From Unidentified Person	22,006.00
Central Coalfields Limited	2,49,152.00
Honorarium Payable for CCMT 2023	1,07,500.00
Honorarium Payable for CSAB	4,78,412.00
Interest Transferable to MOE	25,33,523.00
LIC Claim of Mamta Sharma	53,507.00
LIC Claim-Uttam Kumar Ghosh	44,490.00
Received From Jharkhand University of Technology	5,42,000.00
Registration Fee-Payable to JUT	4,900.00
6. Deposit-Others	
i. Earnest Money	22,59,701.00
ii. Performance Security	
TOTAL	9,86,22,163.00



SCHEDULE - 28: DEPOSIT & ADVANCES

PARTICULARS	AMOUNT
1. Advance to Supplier	
a. Advance to NICSJ for website shifting	1,33,834.00
2. Advance to Employees (Interest Bearing)	
a. Car/Motorcycle/Scooter Advance	-
b. Computer Advance	45,500.00
3. Advance to Employees (Non Interest Bearing)	
a. Expenses Advance	4,50,050.00
b. Leave Travel Concession Advance	73,031.00
c. Medical Advance	2,60,000.00
d. Rolling Advane	21,630.00
e. Travelling Advance	56,546.00
f. CPDA Advance	2,06,065.00
g. Conference Advance	1,12,239.00
4. Claim Receivable	
a. Amount Receivable from Ankit Sharma	200.00
TOTAL	13,59,095.00





SCHEDULE - 29: NON-PLAN EXPENSES

PARTICULARS	AMOUNT
1. Academic Expenses	-
a. Examination Expenses (OH-31)	-
b. Payment to Visiting Faculty	-
c. Examination Expenses (JUT)	-
d. Examination Expenses (RU)	-
e. Stipend /Scholarship	-
f. Caution Money	21,000.00
(1) Sub Total	21,000.00
2. Administrative General Expenses	
a. Communication	1,10,893.44
b. Admin Function/Events	7,25,612.00
c. Pension	6,39,29,861.00
d. Others Administrative Expenditure	10,93,915.82
e. Others (Specify)	39,243.04
	6,58,99,525.30
3. Repair & Maintenance	
(3) Sub Total	-
4. Staff Payments & Benefits (Est.Expenses)	
a. Allowances & Bonus	
b. Children Education Allowance	9,72,000.00
c. Payment to Adhoc Staff	
d. Retirement & Terminal Benefits	
e. Salaries & Wages	14,97,59,113.00
f. Telephone Facility	
g. Terminal Benefit of Director	4,70,948.00
(4) Sub Total	15,12,02,061.00
5. Transportation Expenses	
a. Vehicles(Owned by Institution)	
(5) Sub Total	-
TOTAL	21,71,22,586.30



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

A. RECEIPT AGAINST SPONSORED PROJECT	
PARTICULARS	AMOUNT
i) AICTE-Atal FDP Workshop	
ii) Project-Science & Engineering Research Board(S.Basu)	
iii) Project-Science & Engineering Research Board (P.S.Mondal)	3,519.00
iv) Project-Science & Engineering Research Board (D.Roy)	4,940.00
v) AICTE Project (D Roy)	
vi) Project-Science & Engineering Research Board (A.K.Pramanik)	4,940.00
TOTAL	13,399.00

B. RECEIPT AGAINST SPONSORED FELLOWSHIP/SCHOLARSHIP	
PARTICULARS	AMOUNT
i) Govt. of India SC/ST Scholarship	11,34,800.00
TOTAL	11,34,800.00

SCHEDULE - 31: PLAN FIXED ASSETS

PARTICULARS	AMOUNT
i) Capital Work in Progress	
ii) HEFA Interest Payment	33,41,337.00
TOTAL	33,41,337.00




SCHEDULE - 32: LOANS, ADVANCES & DEPOSITS

PARTICULARS	AMOUNT
1.Advance & Other Amount Receivable in cash/kind	
a. Advance to Suppliers	1,36,54,882.00
b. Institute Activities	
2.Advance to Employees (Non Interest Bearing)	
a. Expenses Advance	47,60,832.00
b. Leave Travel Concession Advance	10,53,930.00
c. Medical Advance	
d. Rolling Advance	5,59,350.00
e. Travelling Advance	3,30,000.00
f. CPDA Advance	12,94,664.00
g. Conference Advance	8,00,000.00
3.Claim Receivable	
a. Amount Receivable from Ankit Sharma	
b. Amount Receivable from Vikash Kumar (CCC)	
4.Deposits	
a. Fixed Deposit (FLC)-140048019952	
b. Security Deposit with Alpha Indane Gas Agency	13,000.00
TOTAL	2,24,66,658.00

SCHEDULE - 33: OTHER PAYMENTS

PARTICULARS	AMOUNT
1.Deposit from Staff	
a. P Talukdar With Held Amount	
2.Deposit-Other	
a. Earnest Money	29,72,500.00
b. Performance Security	1,51,574.00
3.Deposit From Students	
a. Caution Money	-
4.Other Current Liabilities	
a. Expneses Payable	23,12,99,961.86
b. CPDA Payable	12,24,418.00
c. Amount Payable to P Talukdar	
d. Indian Statistical Institute	
e. Interest Transferable to MOE	19,22,446.00
f. GeM Suppliers	78,44,065.00
5.Statutory Liabilities	
a. GPF Deduction from Salary	1,29,96,616.00
b. GIS Premium	22,325.00
c. LIC Premium	10,74,252.00
d. New Pension Scheme(Employees Contribution)	58,74,745.00
e. New Pension Scheme(Employers Contribution)	82,24,557.00
f. TDS Payable 92A	2,87,11,098.00
g. TDS Payable 94C	3,96,711.00
h. TDS Payable 94J	97,200.00
j. CGST TDS 1%	4,53,285.00
k. IGST TDS 2%	2,94,359.00
l. Professional Tax on Salary	2,11,117.00
m. SGST TDS 1%	4,53,285.00
n. TDS Payable 94 I	
TOTAL	30,42,24,514.86



NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY
HATIA, RANCHI-834003

BANK RECONCILIATION STATEMENT AS ON 31.03.2024

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

Particulars	Amount
Balance as per Bank Book as on 31.03.2024	5,04,42,523.29
Less: Amount credited by bank but not debited in cash book.	3,04,237.00
Less: Amount credited in cash book but not debited by Bank	5,40,618.00
Add: Amount debited by bank but not credited in cash book.	-
Add: Amount debited in cash book but not credit by bank	130.00
Net Bank Balance as on 31.03.2024	4,95,97,798.29
Balance as per Cash Book as on 31.03.2024	4,95,97,798.29
Difference	-

2) CANARA BANK SB A/C NO. 2730101011451

Particulars	Amount
Balance as per Bank Book as on 31.03.2024	89,43,358.04
Less: Amount credited by bank but not debited in cash book.	-
Less: Amount credited in cash book but not debited by Bank	12,09,041.00
Add: Amount debited by bank but not credited in cash book.	-
Add: Amount debited in cash book but not credit by bank	17,200.00
Net Bank Balance as on 31.03.2024	77,51,517.04
Balance as per Cash Book as on 31.03.2024	77,51,517.04
Difference	-

3) CANARA BANK SB A/C NO. 2730101011452

Particulars	Amount
Balance as per Bank Book as on 31.03.2024	1,90,33,913.83
Less: Amount credited by bank but not debited in cash book.	-
Less: Amount credited in cash book but not debited by Bank	3,75,308.00
Add: Amount debited by bank but not credited in cash book.	-
Add: Amount debited in cash book but not credit by bank	41,489.00
Net Bank Balance as on 31.03.2024	1,87,00,094.83
Balance as per Cash Book as on 31.03.2024	1,87,00,094.83
Difference	-

4) CANARA BANK SB A/C NO. 2730101011453

Particulars	Amount
Balance as per Bank Book as on 31.03.2024	5,88,01,201.00
Less: Amount credited by bank but not debited in cash book.	-
Less: Amount credited in cash book but not debited by Bank	3,83,12,261.00
Add: Amount debited by bank but not credited in cash book.	-
Add: Amount debited in cash book but not credit by bank	-
Net Bank Balance as on 31.03.2024	2,04,88,940.00
Balance as per Cash Book as on 31.03.2024	2,04,88,940.00
Difference	-



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

Particulars	Amount
Balance as per Bank Book as on 31.03.2024	20,14,109.00
Less: Amount credited by bank but not debited in cash book.	-
Less: Amount credited in cash book but not debited by Bank	9,263.00
Add: Amount debited by bank but not credited in cash book.	1,434.00
Add: Amount debited in cash book but not credit by bank	-
Net Bank Balance as on 31.03.2024	20,06,280.00
Balance as per Cash Book as on 31.03.2024	20,06,280.00
Difference	-

6) CANARA BANK ONLINE A/C NO. 2730101012610

Particulars	Amount
Balance as per Bank Book as on 31.03.2024	3,24,312.57
Less: Amount credited by bank but not debited in cash book.	59,924.06
Less: Amount credited in cash book but not debited by Bank	15,147.59
Add: Amount debited by bank but not credited in cash book.	6,55,524.58
Add: Amount debited in cash book but not credit by bank	-
Net Bank Balance as on 31.03.2024	9,04,765.50
Balance as per Cash Book as on 31.03.2024	9,04,765.50
Difference	-

7) SBI ONLINE A/C NO. 38979437865

Particulars	Amount
Balance as per Bank Book as on 31.03.2024	15,01,154.62
Less: Amount credited by bank but not debited in cash book.	-
Less: Amount credited in cash book but not debited by Bank	-
Add: Amount debited by bank but not credited in cash book.	49,26,776.46
Add: Amount debited in cash book but not credit by bank	-
Net Bank Balance as on 31.03.2024	64,27,931.08
Balance as per Cash Book as on 31.03.2024	64,27,931.08
Difference	-

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

Particulars	Amount
Balance as per Bank Book as on 31.03.2024	3,04,31,926.10
Less: Amount credited by bank but not debited in cash book.	5,73,809.10
Less: Amount credited in cash book but not debited by Bank	-
Add: Amount debited by bank but not credited in cash book.	-
Add: Amount debited in cash book but not credit by bank	-
Net Bank Balance as on 31.03.2024	2,98,58,117.00
Balance as per Cash Book as on 31.03.2024	2,98,58,117.00
Difference	-

9) CANARA BANK SB A/C NO. 2730101011923 (SERB Project I)

Particulars	Amount
Balance as per Bank Book as on 31.03.2024	6,114.00
Less: Amount credited by bank but not debited in cash book.	-
Less: Amount credited in cash book but not debited by Bank	-
Add: Amount debited by bank but not credited in cash book.	-
Add: Amount debited in cash book but not credit by bank	-
Net Bank Balance as on 31.03.2024	6,114.00
Balance as per Cash Book as on 31.03.2024	6,114.00
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 2023-24**

(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, 2024

Previous Year 2022-23	Liabilities	Current Year 2023-24	Previous Year 2022-23	Assets	Current Year 2023-24
13,09,65,771.00	GPF Opening Balance Add: Subscription Add: Advances Recovered Less: Withdrawals Less: GPF Final settlements Add: Interest Credited Closing Balance	14,66,49,881.00 13,09,65,771.00 1,27,65,016.00 - 49,43,351.00 17,79,471.00 96,41,916.00 14,66,49,881.00	11,94,07,035.00	Investment In Term Deposit 2730401001627/6 2730307000001/6 2730401002217/9 2730401002218/9 2730401001848/11 2730401001442/14 2730401001442/16 2730401001442/17 2730401001442/18 2730401001442/19	14,75,94,361.00 2,06,91,330.00 96,13,329.00 1,32,34,910.00 1,32,34,912.00 97,01,892.00 4,24,62,422.00 1,93,27,750.00 23,27,816.00 1,00,00,000.00 70,00,000.00
54,36,238.38	Interest Reserve Opening Balance Less: Excess of Expense over Income Closing Balance	38,40,050.38 54,36,238.38 15,96,188.00 38,40,050.38	35,76,638.00 13,38,332.09	Accrued Interest TDS on FD Interest Cash at Bank	13,38,332.09 15,57,238.29
13,64,02,009.38	Total	15,04,89,931.38	13,64,02,009.38	Total	15,04,89,931.38

K. Panigrahi
31.03.24
K. P. Panigrahi
Dy. Registrar

Arvind Pandey
31.03.2024
Prof. Arvind Pandey
Registrar I/c

कुलसचिव
Registrar

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

P. Chattopadhyay
Prof. P. Chattopadhyay
Director

निदेशक
Director

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

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



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

NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY

HATIA, RANCHI-834003

**GENERAL PROVIDENT FUND ACCOUNT
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2024**

Previous Year 2022-23	EXPENDITURE		Current Year 2023-24	Previous Year 2022-23	INCOME	Current Year 2023-24
84,30,790.00	Interest credited to GPF Account	95,67,849.00	96,41,916.00	55,40,192.25	Interest Earned on Investment	76,10,688.00
	a. Accrued Interest	74,067.00			Interest received on FDR	
	b. Actual Interest Paid				Add: Interest accrued on 31.03.2024	
38.00	Bank Charges		715.00		Less: Interest Accrued on 31.03.2023	
84,30,828.00	Total		96,42,631.00	84,30,828.00	Total	96,42,631.00

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



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

Prof. P. P. Chattopadhyay
Prof. P. P. Chattopadhyay
Director

Prof. Arvind Pandey
Prof. Arvind Pandey
Registrar I/c

K. P. Panigrahi
K. P. Panigrahi
Dy. Registrar

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 2024

Previous Year 2022-23	RECEIPTS	Current Year 2023-24	Previous Year 2022-23	PAYMENTS	Current Year 2023-24
39,40,689.29	Opening Balance Canara Bank SB A/c No. 2730101007115	1,20,80,004.29	35,18,036.00	FD Investment	17,79,471.00
1,71,31,500.00	GPF Subscription GPF Advance recovery	1,27,65,016.00	56,60,000.00	GPF Final Settlement GPF Withdrawal	49,43,351.00
			38.00	Bank Charges	715.00
1,85,889.00	Interest on Saving Bank Account	4,35,755.00		Investment in FDR 2730401001442/18 2730401001442/19	1,00,00,000.00 70,00,000.00
2,12,58,078.29	Total	2,52,80,775.29	1,20,80,004.29	Closing Balance Canara Bank SB A/c No. 2730101007115	15,57,238.29
			2,12,58,078.29	Total	2,52,80,775.29

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



[Signature]

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

Prof. P. P. Chattopadhyay
Director

निदेशक
Director

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

[Signature]
Prof. Arvind Pandey
Registrar I/c

कुलसचिव
Registrar

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

[Signature]
K. P. Panigrahi
Dy. Registrar

NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY
HATIA, RANCHI-834003

GENERAL PROVIDENT FUND ACCOUNT
DETAILS OF TERM DEPOSITS AS ON 31.03.2024

Sl.	Account Number	Date of Investment/ Reinvestment	Date of maturity	Bank	Principal	Total Interest to be Received	Accrued Interest as on 31.03.2024	TDS on FD
1	2730401001627/6	15-11-2022	30 October 2024	CANARA	1,91,47,915.00	24,72,822.00	-	-
2	2730307000001/6	26-05-2023	24 May 2024	CANARA	96,13,329.00	6,23,154.00	-	-
3	2730401002217/9	20-05-2023	20 May 2024	CANARA	1,25,63,706.00	9,02,815.00	-	-
4	2730401002218/9	20-05-2023	20 May 2024	CANARA	1,25,63,707.00	9,02,816.00	-	-
5	2730401001848/11	12-02-2024	12 February 2025	CANARA	97,01,892.00	6,81,847.00	-	-
6	2730401001442/14	20-07-2023	20 July 2024	CANARA	4,12,16,649.00	25,29,199.00	-	-
7	2730401001442/16	26-10-2023	26 October 2024	CANARA	1,90,00,000.00	13,45,314.00	-	-
8	2730401001442/17	27-10-2023	27 October 2024	CANARA	22,88,342.00	1,62,029.00	-	-
9	2730401001442/18	30-03-2024	30 March 2025	CANARA	1,00,00,000.00	7,02,799.00	-	-
10	2730401001442/19	30-03-2024	30 March 2025	CANARA	70,00,000.00	4,91,959.00	-	-
Total:					14,30,95,540.00	1,08,14,754.00	-	-





NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY
HATIA, RANCHI-834003

Bank Reconciliation Statement as on 31.03.2024

Particulars	Amount
1) CANARA BANK SB A/C NO. 2730101007115 (NIFFT GPF A/C)	
Balance as per Ledger as on 31.03.2024	15,57,238.29
Balance as per Bank Statement as on 31.03.2024	15,57,238.29
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 IMPROVEMENT PROGRAMME
ACCOUNT
FOR THE FINANCIAL YEAR 2023-24

(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, 2024

SOURCES OF FUNDS		Schedule	Current Year 2023-24	Previous Year 2022-23
CORPUS/CAPITAL FUND	1		1,25,81,126.26	1,55,58,300.96
TOTAL			1,25,81,126.26	1,55,58,300.96
APPLICATION OF FUNDS		Schedule	Current Year 2023-24	Previous Year 2022-23
FIXED ASSETS	2		1,07,22,188.15	1,36,99,362.85
CURRENT ASSETS	3		1,255.00	1,255.00
LOANS, ADVANCES & DEPOSITS	4		18,57,683.11	11,54,754.00
TOTAL			1,25,81,126.26	1,48,55,371.85



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

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

(Signature)
Prof. P. P. Chattopadhyay
31-06-2024
Director

(Signature)
31.05.2024
Prof. Arvind Pandey
Registrar I/c

(Signature)
31.05.24
R. P. Panigrahi
Dy. Registrar

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

राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान, राँची-3
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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, 2024

INCOME	Schedule	Current Year 2023-24	Previous Year 2022-23
GRANTS	-	-	-
OTHER INCOME	-	-	-
TOTAL(A)		-	-

EXPENDITURE	Schedule	Current Year 2023-24	Previous Year 2022-23
OTHER EXPENSES	-	-	1,300.00
DEPRECIATION	2	29,77,174.70	29,77,174.70
TOTAL(B)		29,77,174.70	29,78,474.70
Balance Being Deficit Carried to Capital Fund (29,77,174.70) (29,78,474.70)			

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



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

K. P. Panigrahi
31.03.24
K. P. Panigrahi
Dy. Registrar

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

Prof. Arvind Pandey
31.03.2024
Prof. Arvind Pandey
Registrar I/c

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

Prof. P. P. Chattopadhyay
31-03-24
Prof. P. P. Chattopadhyay
Director

देशक
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

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31.03.2024

Previous Year 2022-23	RECEIPTS	Current Year 2023-24	Previous Year 2022-23	PAYMENTS	Current Year 2023-24
1,255.00 7,04,229.11	Opening Balances A) Cash Balances B) Bank Balances	1,255.00 -	1,300.00 7,02,929.11	Expenses Bank Charges Transferred to NIAMT IRG A/c	- -
			1,255.00 -	Closing Balances A) Cash Balances B) Bank Balances	1,255.00 -
7,05,484.11		1,255.00	7,05,484.11		1,255.00

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



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

(Signature)
31.05.2024
Prof. P. P. Chattopadhyay
Registrar I/c
कुलसचिव
Registrar
Director

(Signature)
31.05.24
K. P. Panigrahi
Dy. Registrar
उप कुलसचिव
Dy. Registrar

राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान, राँची राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान, राँची-3
National Institute of Advanced Manufacturing Technology, Ranchi 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	1,55,58,300.96	1,85,36,775.66
Add: Contributions towards Corpus/Capital fund	-	-
Add: Grants Received	-	-
Add: Excess of Income over Expenditure transferred from the Income & Expenditure Account	-	-
TOTAL	1,55,58,300.96	1,85,36,775.66
Deduct: Deficit transferred from Income & Expenditure Account	(29,77,174.70)	(29,78,474.70)
Balance at the year end	1,25,81,126.26	1,55,58,300.96





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

S.No	Assets Heads	Opening Balance	Additions	Deductions	Total	Depreciation for the Year	Closing Balance
	2	3	4	5	6	7	8
1	Scientific & Laboratory Equipment	1,36,99,362.85	-	-	1,36,99,362.85	29,77,174.70	1,07,22,188.15
	Total (C)	1,36,99,362.85	-	-	1,36,99,362.85	29,77,174.70	1,07,22,188.15

SCHEDULE- 3 - CURRENT ASSETS(OB)

Particulars	Current Year 2023-24	Previous Year 2022-23
1. cash in Hand	1,255.00	1,255.00
Total	1,255.00	1,255.00

SCHEDULE- 4 - LOANS & ADVANCES(OB)

Particulars	Current Year 2023-24	Previous Year 2022-23
1. M/s Ed.CIL (India) Ltd.	11,23,225.00	11,23,225.00
2. M/s NIIFT	31,529.00	31,529.00
3. National Institute of Advanced Manufacturing Technology	7,02,929.11	7,02,929.11
Total	18,57,683.11	11,54,754.00



**NATIONAL INSTITUTE OF ADVANCED MANUFACTURING TECHNOLOGY
HATIA, RANCHI - 834003**

SIGNIFICANT ACCOUNTING POLICIES AND NOTES ON ACCOUNTS (FY: 2023-24)

PART-A: SIGNIFICANT ACCOUNTING POLICIES

1. General Policy:

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 2023-24 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.

2. 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.

3. Revenue Recognition:

- (i) The Institute is funded by the Ministry of Education, 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 MoE, 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.

4. 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 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.
- (ii) 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.
- (iii) Patents and copy rights ,E Journals and computer software are grouped under Intangible assets
- (iv) 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

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



5. 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.

6. 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.

7. 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.

8. Foreign Currency Transactions:

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

9. Provisions:

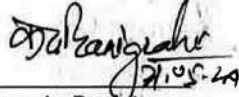
Known liabilities recognized up to the date of finalization of accounts are provided for.

10. 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.

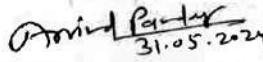
11. Purchase procedure through Institute's Stores & Purchase Unit:

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


उप कुलसचिव
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


Director

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

For M/s. Manmohan Singh & Co., Chartered Accountants



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





PART-B: NOTES ON THE ACCOUNTS

- a. As the General Provident Fund Accounts are owned by members of those Funds and not by the Institution, the GPF Account was 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 account has been closed by transferring the balance to a new SBI Bank A/c no - 38979437865.
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 (Canara Bank A/c No. - 2730101006939).
7. Schedule 1 to 26 are annexed to and bears an integral part of Balance Sheet as of 31st March 2024 and Income and Expenditure account for the year ended on that date.


Deputy Registrar

उप कुलसचिव
Dy. Registrar

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


Registrar I/c

कुलसचिव
Registrar

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


31-05-24
Director

निदेशक
Director

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

For M. Manmohan Singh & Co. Chartered Accountants



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



कार्यालय प्रधान निदेशक लेखापरीक्षा
(केंद्रीय), लखनऊ, शाखा कार्यालय: रांची
महालेखाकार कार्यालय,
मुख्य भवन,
5वीं मंजिल,
डोरंडा,
रांची-834002
BRPDACRANCHI@CAG.GOV.IN



BRANCH: DIRECTOR GENERAL OF
AUDIT (CENTRAL), LUCKNOW AT
RANCHI
AG Office Main Building,
5th floor,
Doranda,
Ranchi-834 002
BRPDACRANCHI@CAG.GOV.IN

Ltr No: Central Expenditure Audit wing/2024-2025/DIS-2059232

Date: 03 Oct 2024

To,

1 Director, NIAMT
Hatia, Ranchi

Subject: Issue of Separate Audit Report of NIAMT, Hatia Ranchi for FY 2023-24.

Sir/Madam,

Subject: Separate Audit Report on the accounts of NIAMT, Hatia, Ranchi for the year 2023-24.

Sir,

I enclose a copy of the Separate Audit Report (SAR) of NIAMT, Hatia, Ranchi for the year 2023-24 for information and necessary action.

2. A copy of the SAR has been 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, Hatia, 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 and Audit Certificate 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,

Encls: As above

Sanjay Kumar I
Principal Director

Copy to:-

Ltr No : Central Expenditure Audit wing/2024-2025/DIS-2059232/C1/For Information
1 Secretary, Higher Education,
Ministry of Education, Government of India





Separate Audit Report of the Comptroller & Auditor General of India on the accounts of National Institute of Advanced Manufacturing Technology (NIAMT), Ranchi for the year ended 31 March 2024.

We have audited the attached Balance Sheet of National Institute of Advanced Manufacturing Technology (NIAMT), Ranchi as on 31 March 2024, the Income and Expenditure Account and Receipts and Payments Account for the year ended on that date under Section 20 (1) of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971 read with section 20 (i to ii) of Memorandum of Association of National Institute of Advanced 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 and Auditor General of India (C&AG) 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 and Regulations (Propriety and Regularity) and efficiency-cum-performance aspects, etc., if any, are reported through Inspection Reports/ C&AG'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. Our audit includes examining, on a test basis, evidence supporting the amounts and disclosure in the financial statements. It also includes assessing the accounting principles used and significant estimates made by the management as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.

4. Based on our audit, we report that:

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

(ii) The Balance Sheet, Income & Expenditure Account and Receipts and 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 Institute as required under Section 23 (1 to 4) of IIT Act, 1961 and rules and regulation in so far as it appears from our examination of such books.

(iv) We further report that.

Balance sheet

A.1 Schedule 4 – Fixed Assets

A.1.1 The institute has made an advance of ₹ 3.39 Crore to M/s National Informatic Centre (NIC) and posted it in Schedule 8 - (II b) – Loans advances and Deposits.

After scrutiny of the ledger and other relevant records, we noticed that the Institute had paid an advance of ₹ 3.39 crore to NIC between March 2014 and October 2023 for establishing a Local Area Network (LAN) which was completed and installed in October 2018. However, the Institute is still showing this as advanced instead of showing it in fixed assets. This led to an overstatement of Loans and Advances and understatement of fixed assets by ₹ 3.39 crore and a consequential understatement of depreciation.

Since last three years, Audit has been pointing out this issue and Institute has been replying that it would be corrected in next accounts, yet no action has been taken on this.

B General

B.1 During the course of the audit of NIAMT Ranchi, it was noticed that the Institute had booked one bank account in the Schedule 8 (3) - Head – Advances and other amounts recoverable i.e SBI Online a/c no 36228721268 (Old) having a balance of ₹ 13.10 lakh and advances had been made out of it. Details could not be made available to audit. This issue was raised earlier in the Separate audit Reports and no adjustments has been done till date.

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 2023-24 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) issued by MHRD now MoE, 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 2023-24, it was noticed that no separate NPS a/c Balance sheet, Income and Expenditure account and Receipt and Payment account have been prepared.

This issue was raised in last year Separate Audit Report also, but no action has been taken by the Institute.

B.4 As per the provisions of Accounting Standard 16(AS 16) as issued by Institute of Chartered Accountants of India, borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset should be capitalized as part of the cost of that asset. The AS 16 further provides that capitalization of borrowing costs should be stopped when substantially all activities necessary to prepare the qualifying asset for its intended use are complete. The financial statements should disclose: (a) the accounting policy adopted for borrowing costs; and (b) the amount of borrowing costs capitalized during the period.



The Institute has availed Term loans issued by the Institute from Higher Education Financing Agency (HEFA) for the purpose of Construction of Buildings and Infrastructure Development and purchase of Equipment in the campus of NIAMT Ranchi. up to the year ended March 2024, the Institute Capitalized Equipment with expenditure amounting to Rs 3.15 crore made on it in year 2022-24. The Institute has not disclosed the Accounting Policy as regards treatment of borrowing cost. As per the above provisions of AS 16 the interest paid till capitalization of these assets should have been capitalized. The same needs to be disclosed in Notes to Accounts.

B.5 An amount of Rs 5.14 lakh had been accounted under Sundry Debtors (Schedule 7 – Current Assets). These debts were in shape of advances given to officials of the Institute and various outside entities as well and had been outstanding since 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 reviewed by the Institute and steps be taken to write off the unrecoverable/adjustable advances and to adjust the advances given to outside entities.

This issue was raised in last year audit also, but the Institute has not taken any corrective measures till date.

B.6 During the course of audit of accounts of National Institute of Advanced Manufacturing Technology (NIAMT) Hatia, Ranchi, it was noticed that in Schedule 8 (3) Loans, Advances & Deposits – Advances & other amounts recoverable, an amount of Rs 50 lakh was given as advance for NIIFT Golden Jubilee Celebration in year 2016 and Rs 41.80 lakh was given as advance to JIINKS in years 2015-16 to 2019-20. Audit observed that an amount of Rs 20.11 lakh and Rs 16.00 lakh is still pending for adjustment/recovery against NIIFT Golden Jubilee Celebration and Advance to JIINKS and have been reflected as liability for a long period. The same needs to be adjusted.

C. Grants-in-Aid

The Institute received Grants amounting to ₹ 37 crore (Capital ₹ 8.50 crore and Revenue ₹ 28.50 crore) from the Ministry of Education during 2023-24. The interest earned on Govt. Grant was ₹ 0.25 crore (Capital – ₹ 0.13 crore and Revenue – ₹ 0.12 (0.06+ 0.06) crore). The unspent balance of the previous year was ₹ 30.03 crores [Capital-₹ 22.05 and Revenue- ₹ 7.98 crore]. Thus, the Institute had a total fund of ₹ 67.31 crore (Capital-₹ 30.69 crore, Revenue- ₹ 36.62 crore). Out of which the Institute utilized a sum of ₹ 44.62 crore (Capital-₹ 8.38 crore and Revenue-₹ 36.24 crore) leaving a balance of ₹ 22.69 crores (Capital-₹ 22.31 and Revenue-₹ 0.38 crore) as unutilized amount as on 31.03.2024.

There is difference in figures as per Schedule 3 & 10 of Annual Accounts and Provisional utilization certificates submitted to audit due to not inclusion of advances and CWIP. The same needs to be reconciled.

(v) Subject to our observations in the preceding paragraphs, we report that the Balance Sheet and Income & Expenditure Account and Receipt & Payment Account dealt with by this report agree 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.

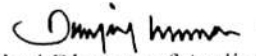
In so far as it relates to the Balance Sheet, of the state of affairs of the NIAMI, Ranchi as at 31st March 2024, and

In so far as it relates to Income and Expenditure Account of the deficit for the year ended on that date.

20.12.2024

Place: Lucknow

For and on behalf of the C&AG of India



Principal Director of Audit (Central)



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:

There is lack of control in management of advances, their adjustments and recoveries thereof. Very old advances are yet to be adjusted which depicts weak internal control.

The Institute has not prepared Internal Audit and Office Procedure of Accounting Manual. Besides, definition and job description of the officers and staff and procedure for maintaining accounts and records has 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.

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.

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 since a long time. 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.



राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान
 इटिया, राँची - 834003 (झारखण्ड)
National Institute of Advanced Manufacturing Technology
 Hatia, Ranchi- 834 003 (Jharkhand)

Celebration of Bharatiya Bhasha Utsav on 11th December 2023 at NIAMT, Ranchi

भारतीय भाषा उत्सव 2023
 तमिल कवि एवं स्वतंत्रता सेनानी
महाकवि सुब्रह्मण्य भारती
 कि ज्ञान जयंती पर शत शत नमन

CELEBRATION ON 11-12-2023
 VENUE: AUDITORIUM, ADMIN BUILDING, NIAMT RANCHI

1. My Signature in My Mother Tongue Activity

कंसू रंजन झा	विवेक
अनुभव	सुब्रह्मण्य
प्राणजित उड्डाचार	कंसू सुभाष
सौरभ कुमार	सौरभ कुमार



