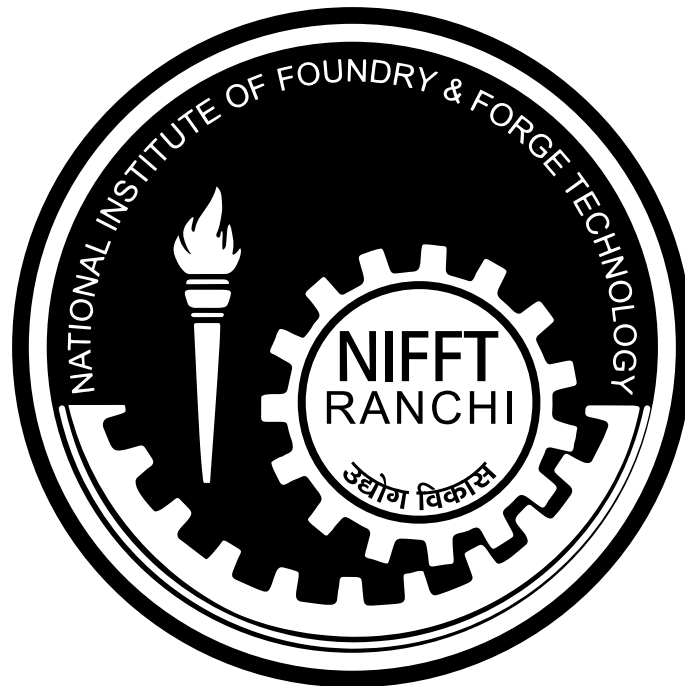


# ANNUAL REPORT

2019-20



**NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY**  
A Centrally Funded Technical Institute under MHRD (Govt. of India)

Hatia, Ranchi - 834 003 (Jharkhand) INDIA

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# PREAMBLE

**G**lobally manufacturing has proved its importance in inclusive economic growth. In pursuit of the excellence in manufacturing, National Institute of Foundry and Forge Technology established in 1966, is conducting training, education and research with a particular focus on mechanical manufacturing in line with the evolving demand in Industries. At its inception, the Institute introduced Advance Diploma Programms in Foundry Technology and Forge Technology, followed by two B. Tech and four M. Tech Programms. Since inception, NIFFT has maintained the character of a National Institute in administrative structure, recruitment of faculty and admission of students. Over the years, NIFFT has earned widespread recognition in training, education, research and consultancy in areas related to manufacturing. Alumni of the Institute have played a leading role not only in foundry and Forge industries, as engineers and entrepreneurs, but also in IITs, IIMs, PSUs, and UPSC cadres.

With its reputation in training and education in primary manufacturing processes, NIFFT is rightly positioned to bridge the knowledge gap between traditional and Advanced Manufacturing. The character of a National Institute, as inherited by NIFFT and its very intimate interface with the Industries are also the supportive factors for future growth of the Institute.

In the recent past, two committees, constituted by MHRD under the chairmanships of Shri Baba Kalyani and Professor Amitabh Ghosh, have recommended elevation of NIFFT to the centre of Excellence in Advanced Manufacturing. The experts unanimously agreed that the Institute has the potential to elevate the present primary manufacturing centric programme to the level of Advanced Manufacturing Technology maintaining its current focus in the domain of mechanical science.

Accordingly, the Institute has taken a serious initiative to elevate its academic and physical infrastructure based on a clearly defined roadmap to render its service towards excellence in Manufacturing in consonance with 'Make in India' programme.



## BOARD OF GOVERNORS

1	<b>Shri Ajai Chowdhry</b> Founder – HCL	Chairman
<b>Representatives from Government of India</b>		
2	<b>Shri Madhu Ranjan Kumar,</b> Joint Secretary (DL&BP) Ministry of Human Resource Development, Department of Higher Education, Govt.of India	Member
3	<b>Smt. Darshana M. Dabral</b> JS & FA Ministry of Human Resource Development Department of Higher Education, Govt.of India	Member
<b>Representative of Ministry of Industry Government of India</b>		
4	<b>Mohd. Zakaria Khan Yusufzai</b> Senior Development Officer (Engg.) Department for Promotion of Industry and Internal Trade Ministry of Commerce and Industry	Member
<b>Representative of All India Council for Technical Education</b>		
5	<b>Professor M.K. Tiwari</b> Department of Industrial Engg. and Management Indian Institute of Technology Kharagpur	Member
<b>Representative of Industries including Public Enterprises</b>		
6	<b>Shri Sham Arjunwadekar,</b> Chairman, National Centre for Technical Services Institute of Indian Foundrymen, Pune	Member
7	Vacant	Member
8	<b>Shri Pradeep Goyal,</b> Founder Chairman & Managing Director, Pradeep Metals Limited, Mumbai	Member
9	<b>Shri Sachin B. Sabnis</b> Managing Director Belgaum Ferrocast India Pvt. Ltd (BFPL)	Member
10	<b>Professor Markrand Shrikrishna Kulkarni</b> Department of Mechanical Engineering, Indian Institute of Technology, Bombay	Member
<b>Representative of Technical Institutes/ Engineering Profession</b>		
11	<b>Dr. Pallab Banerji</b> Professor Materials Science Centre Indian Institute of Technology, Kharagpur	Member



12	<b>Professor B. S. Murthy</b> Department of Metallurgical and Materials Engineering NAC Rd, Indian Institute of Technology, Madras	Member
<b>Co-opted members by the Board</b>		
13	<b>Professor Amol A Gokhale</b> Department of Mechanical Engineering (Manufacturing Group) Indian Institute of Technology, Bombay	Member
14	<b>Professor D. Ravi Kumar</b> Department of Mechanical Engineering Indian Institute of Technology, Delhi	Member
<b>Co-opted members from Faculty</b>		
15	<b>Professor Binod Kumar,</b> Dept. of Materials and Metallurgical Engineering, NIFFT	Member
16	<b>Professor N.K.Singh</b> Dept. of Forge Technology, NIFFT	Member
17	<b>Shri U.C. Prasad</b> Registrar, NIFFT	Invited Member
18	<b>Professor Partha Protim Chattopadhyay</b> Director, NIFFT	Member Secretary



## ADMINISTRATIVE AND FINANCE COMMITTEE

1	<b>Shri Ajai Chowdhry,</b> Founder - HCL	Chairman
2	<b>Shri Madhu Ranjan Kumar,</b> Joint Secretary (DL&BP) Ministry of Human Resource Development, Department of Higher Education, Govt.of India	Member
3	<b>Smt. Dharshana M. Dabral,</b> JS & FA Ministry of Human Resource Development Department of Higher Education, Govt.of India	Member
4.	<b>Professor Binod Kumar,</b> Dept. of MME, NIFFT	Member
5.	<b>Professor N.K.Singh</b> Dept. of Forge, NIFFT	Member
6	<b>Shri U.C.Prasad,</b> Registrar, NIFFT	Invited Member
7	<b>Professor P. P. Chattopadhyay,</b> Director, NIFFT	Member Secretary





## STANDING BUILDING COMMITTEE

1	<b>Professor Partha Protim Chattopadhyay</b> Director, NIFFT Hatia, Ranchi-03	Chairman
2	<b>Shri Madhu Ranjan Kumar,</b> Joint Secretary(DL&BP) Ministry of Human Resource Development, Department of Higher Education, Govt. of India	Member
3	<b>Professor Debasis Roy,</b> Chairman, Civil Construction and Maintenance, Indian Institute of Technology, Kharagpur	Member
4	<b>Shri S. Bandyopadhyay</b> A.M, Electrical Engineer Heavy Engineering Corporation Limited Dhurwa,Ranchi-834004	Member
5	<b>Shri Suman Kumar</b> General Manager NBCC, 4th Floor, 401, Mangal Tower Old H.B. Road, Ranchi	Member
6	<b>Shri Amrendra Kumar Singh</b> General Manager (Civil) MECON Ltd Ranchi-834002	Member
7	<b>Professor N.K. Singh</b> Member, BoG Department of Forge Technology, NIFFT, Ranchi	Member
8	<b>Professor R.K. Ohdar</b> Dean (P&D) Department of Forge Technology, NIFFT, Ranchi	Member
9	<b>Shri U.C. Prasad,</b> Registrar, NIFFT, Hatia, Ranchi	Member Secretary





## ACADEMIC COUNCIL

1	Dr. P.P. Chattopadhyay, Director, NIFFT, Ranchi	Chairman
2	Vice Chancellor, Jharkhand University of Technology or His Nominee	Member
3	Controller of Examinations, Jharkhand University of Technology	Member
4	Vice Chancellor, Ranchi University or his Nominee	Member
5	Professor Anand Mukut Tigga, Department of Production Engineering	Member
6	NIT, Jamshedpur	Member
7	Professor N. K. Singh, HOD (Forge Tech.)	Member
8	Professor Arvind Pandey, HOD (DASH)	Member
9	Dr. Amitesh Kumar, HOD (Foundry Tech.)	Member
10	Dr. A. K. Sood, HOD (ME)	Member
11	Dr. D. Roy, HOD (MME)	Member
12	Professor Sanjay Kumar, NIFFT, Ranchi	Member
13	Professor B. K. Chakraborty, NIFFT, Ranchi	Member
14	Professor A.K. Singh, NIFFT, Ranchi	Member
15	Professor A. Mondal, NIFFT, Ranchi	Member
16	Professor P. Talukdar, NIFFT, Ranchi	Member
17	Professor K.K. Singh, NIFFT, Ranchi	Member
18	Professor R.K. Ohdar, NIFFT, Ranchi	Member
19	Professor A. K. Pathak, NIFFT, Ranchi	Member
20	Professor Nandita Gupta, NIFFT, Ranchi	Member
21	Professor S. R. Kumar, NIFFT, Ranchi	Member
22	Professor Anil Kumar, NIFFT, Ranchi	Member
23	Professor Manoj Kumar, NIFFT, Ranchi	Member
24	Professor Vijay Toppo, NIFFT, Ranchi	Member
25	Professor B.K. Jha, NIFFT, Ranchi	Member
26	Professor B. Kumar, Dean (Academic)	Member Secretary





## DEPARTMENT OF FOUNDRY TECHNOLOGY

### About Department:

Foundry Technology Department came into existence in 1966 at the time of inception of Institute. Department offers Advanced Diploma Course(ADC) in Foundry Technology and jointly M.Tech in Foundry-Forge Technology Foundry Technology Department provides technological support as consultancy, trouble shooting work, development of latest technology, outreach programme like refresher courses, unit based programme in the premises of institute as well as at the sight of industry and research to Foundry and allied industries. In order to be competent with the present situation of cutting edge technology, Foundry Department has geared up noticeably and capable in establishing latest areas research in Foundry Technology.

### FACULTY :

1	<b>Dr. A. K. Singh</b> B.E., M.Tech., PhD(Ranchi University)	Professor
2	<b>Dr. K. K. Singh,</b> B. Sc. Engg. ( Met.), M. Tech. ( Met. Engg.), Ph.D. (I. I. T. Kanpur), LMIFO, LMIIM, FM Institution of Engineer	Professor
3	<b>Dr. Nandita Gupta</b> B.E. Mechanical , PD. Engineering(Ranchi University) MIIF, LMIIM, FIEI	Professor
4	<b>Dr. Amitesh Kumar</b> B.E., M.Tech., Ph.D. (I. I. T. Kharagpur), MIIF, LMIIM, LMIFO	HOD, Associate Professor
5	<b>Dr. Himanshu Khandelwal</b> B.Tech, M.Tech., Ph.D. (I. I. T. Bombay)	Assistant Professor

### ACTIVITIES:

#### Academic Activities:

Number of subjects offered by the department of M.Tech , B. Tech and ADC level are :

M.Tech.	:	08
B. Tech	:	08
ADC	:	11

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

#### Research and Development/ Projects.

Number of Ph.D. Scholars - 9

#### Projects / Seminar/ Conference/ Presentation / Symposia/ Publications

1. Ganesh Vidyarthi, Nandita gupta, Development of Water Soluble Cores for Investment Casting-A Review” Journal of Indian Institute of Foundrymen 2019 April ISSN 0379-5446, Vol 65, issue 4 April 2019, 40-43pp.





2. Ganesh Vidyarthi, Nandita gupta, "Study of Salt core varying plasticiser for Investment Casting " Indian Engineering Exports "Tech Frontiers " , January 2020 pp48-51.
3. Nandita gupta, Narayan Shukla, Rohit Agarwal, "Improvement in Mechanical and Metallurgical Properties of Metal Matrix Nano Composit" presented in EASCON 2020, Jointly organised by Indian Institute of Foundrymen Kolkata Chapter and Tata Motors, Hotel Ramada Jamshedpur during 10-11 January 2020.
4. Mohd. Nadeem Bhatt, D. M. Afzal Khan, K. K. Singh, Effect of Preconditioning and Inoculation on Graphite Nodule Count and Their Size Distribution in Spheroidal Graphite (SG) Cast Iron: A Study to Minimise Rejection of Castings Due to Shrinkage Porosity, International Journal of Metal casting, 2019,13(1), pp. 89-97.
5. Mohd. Nadeem Bhatt, D. M. Afzal Khan, K. K. Singh, Thermal Analysis and Graphitization Ability of Spheroidal Graphite Cast Iron Preconditioned by Al,Zr,Ca- FeSi, International Journal of Metal casting, 2019,13(48), pp. 1-9.
6. Rajat Upadhyaya and Kamlesh Kumar Singh, Structure Property Correlation of Thin Wall Ductile Iron, Journal of Materials Science Research,2019,8(1), pp. 1-9. **(I.F.-5.94)**
7. K Ponappa, KSK Sasikumar, M Sambathkumar, M Udhayakumar,(2019) Multi Objective Optimization of EDM Process Parameters for Machining of Hybrid Aluminium Metal Matrix composites (Al7070/TiC/B4C using Genetic Algorithm, Surface Review and Letters, 195007,
8. N Baaskaran, K Ponappa, S Shankar,(2019), Study of the effect of varying shapes of holes in energy absorption characteristics on aluminium circular windowed tubes under quasi-static loading, Structural Engineering and Mechanics 70 (2), 153-168.
9. Amitesh Kumar, Rahul Kumar,(2019), Synthesis and characterization of Al- alloy/Al<sub>2</sub>O<sub>3</sub> nanocomposites employing mechanical stirring with ultrasonic casting route, Presented a paper in International Conf. PCM 2019, during 8th – 11th July 2019, at Bangkok.
10. Rahul Kumar, Amitesh Kumar, K. K. Singh(2019), Comparative Study of Microstructure and Mechanical Properties of Micro and Nano Alumina Reinforced MMCs by Ultrasonic Casting Route, IJRAR, Vol. 6, issue 2, pp. 551-554
11. R Upadhyaya, K K Singh, R Kumar and H Pathak, International Journal of Metallurgy and Metal Physics, **3** (2019), No. -2, P-2-8. **(I.F.-0.52)**
12. Mukkollu Samba Siva Rao, Amitesh Kumar, Materials Today Proceedings. **26**, (2020)1078-1081
13. Mukkollu Samab Siva Rao, Amitesh Kumar, Arjun Kumar Gupta , Indian Foundrymen, **65** (2019)39-42.
14. G Vidyarthi and H Khandelwal, "A Study of Ceramic Core for Investment Casting", accepted for publication in Lecture Notes in Mechanical Engineering (Scopus indexed). (IF: 0.37)
15. R.H. Renukananda, H Khandelwal and B. Ravi, "Influence of Gating Geometry Variations on Flow Balancing of Horizontal Multi-Gate Systems in Casting", partially accepted for publication in Journal of Manufacturing Processes. (IF: 4.086)
16. Nandita Gupta has attended a short term course entitled "Technology and Equipment for Ingot Casting of Steel for Production of Products of Heavy and Power Engineering Machine Building,



Including Nuclear Power Engineering Machine Building “ at Heavy Engineering Corporation, Ranchi.

### Industrial services and Consultancy:

1. Consultancy “PMC of Implementation of CFC for Baruiipur Surgical Cluster Welfare Association, Baruiipur; Undertaken by Dr. A. K. Singh, Dr. K. K. Singh and Dr. Amitesh Kumar. The consultancy charge - Rs. 15.0 Lakhs.

### Administrative Assignments:

1.	Dr. K. K. Singh	<ul style="list-style-type: none"> <li>• Dean Student Affairs</li> <li>• Chairman ILC</li> <li>• Chairman NIFFT Niwas</li> </ul>
2.	Prof. A. K. Singh	<ul style="list-style-type: none"> <li>• Chairman Library Committee</li> </ul>
3.	Dr. .Amitesh Kumar	<ul style="list-style-type: none"> <li>• Member Anti-ragging Committee</li> <li>• Member of Library committee</li> <li>• HOD Foundry Technology Deptt.</li> </ul>
4	Dr. Himanshu Khandelwal	<ul style="list-style-type: none"> <li>• Associate Dean (ADC)</li> </ul>





## DEPARTMENT OF FORGE TECHNOLOGY

### About Department:

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

### FACULTY :

1	<b>Dr. N. K. Singh,</b> B.Sc. Engg. (Mech.), M. Tech. (Foundry & Forge Tech.), Ph.D. (Ranchi University)	Professor & HoD
2	<b>Dr. P. Talukdar,</b> B.E. (Met.), M.E. (Met. Engg.), Ph.D. (Jadavpur University)	Professor
3	<b>Dr. R. K. Ohdar,</b> B.E. (Ind. Engg.), M. Tech. (Foundry & Forge Tech.), Ph.D. (IIT Kharagpur)	Professor
4	<b>Dr. Manoj Kumar,</b> B.Sc. Engg. (Mech.), M. Tech. (Foundry & Forge Tech.) Ph.D. (IIT Kanpur)	Professor
5	<b>Mr. Vineet Chak</b> B.Tech (Mech.) M. Tech (IIT Rorkee)	Assistant Professor
6	<b>Dr. Ajit Kumar Pramanik</b> B.Tech(Mech.), M. Tech (IIT Roorkee), Ph.D (Jadavpur University)	Assistant Professor
7	<b>Dr. Deepak Kumar</b> B.Tech (Mech.) M. Tech (AMU Aligarh ), Ph.D. (IIT Rorkee )	Assistant Professor
8	<b>Dr. Kulkarni Rahul Ramesh</b> B.E. (Mech.), M.Tech (NITK), Ph.D. (IIT Bombay)	Assistant Professor

### ACTIVITIES

#### Academic Activities:

Number of subjects offered by the department:

Name of Course	No. of Subjects Offered
B. Tech. Course (ME & MME)	7
M. Tech. Course (Foundry-Forge & Mfg. Engg.)	6
A.D.C. (Foundry Tech. & Forge Tech.)	9



### Ph.D Completed/ Ongoing:

1. Mr. M. Sivadasan, a regular Ph.D. Student of the Department of Forge Technology, NIFFT, Hatia, Ranchi working in the area of “Rapid Tooling for Precision Castings through Fused Deposition Modelling Process” under the guidance of Dr. N. K. Singh, Professor, Forge Technology Department, has completed his thesis defense and been awarded Ph.D degree from Ranchi University.
2. Mr Abhisek Kumar a regular Ph.D student of the Department of Forge Tech is working in the area of Multidirectional Forging under the guidance of Dr. Manoj Kumar, Professor
3. Mr Ashish Kumar, a regular Ph.D. Student of the Department of Forge Technology, NIFFT, Hatia, Ranchi is working in the area of “Reverse Supply Chain” under the guidance of Dr. R. K. Ohdar, Professor, and Dr. Manoj Kumar, Professor, Forge Technology Department, NIFFT, Hatia, Ranchi-834003.
4. Mr. Prithviraj , a regular Ph.D student is working in the area of forging Die Life Improvement under the guidance of Dr. Manoj Kumar and Dr.Ajit Kumar Pramanick.

### Projects / Seminar/ Conference/ Presentation / Symposia/ Publications

1. Archana Kumari, Ajay Kumar Murari, Umesh Prasad and Rajkumar Ohdar, International Journal of Advance and Innovative Research, 6(2019)32-39
2. Manoj Kumar, M. Prithviraj, A K. Pramanick, Materials Today: Proceedings 26(2020)3107. (I.F.-0.97)
3. Chak V, Chattopadhyay H, Dora TL. Journal of Manufacturing Processes. 56 (2020)1059-74 (IF: 4.086)
4. Chak V, Chattopadhyay H. Materials Science and Engineering: A. 29 (2020)139657. (IF: 4.652)
5. Chak V, Chattopadhyay H, Kumar A. Materials Today: Proceedings. 26(2020) 2833.
6. Chak V, Chattopadhyay H, Alam MM. International Journal of Mathematical, Engineering and Management Sciences 5(2020) 497.
7. D. Kumar, U. Prakash, V.V. Dabhade, K. Laha, T. Sakthivel, J. Mater. Eng. Perform. 28 (2019) 242-253 (I.F-1.883).

### Administrative Assignments:

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





## DEPARTMENT OF MANUFACTURING ENGINEERING

### About Department:

Department established in 1985 as Production Engineering Department, and was renamed as Department of Manufacturing Engineering in 1991. The department started the M. Tech. (Manufacturing Engineering) programme in 1991, followed by the B. Tech. (Manufacturing Engineering) programme in 1992 and PhD programme in 2006. The degrees pertaining to all programmes are awarded by Ranchi University, Ranchi. Further, the department is in the process of starting a B. Tech. programme in Mechanical Engineering from the academic year 2018-19.

The department attracts a diverse set of talented students. The curriculum designed is suitable for overall development of Knowledge which helps the students to become industrial and academic leaders. Apart from learning the basic technical concepts, the students are open to avail various elective courses. The department has some finer facilities matching with the best technical institutes in India, to train the undergraduate and postgraduate students, and to enable them to handle the ever challenging needs of technical excellence in all areas of manufacturing engineering. The department has the following laboratories: computer, CAD/CAM/CAE, FMS, metrology, machining, pattern shop and welding. Some new laboratories, such as fluid mechanics and mechanics of solids, etc. are under development.

### FACULTY :

1	<b>Dr. Sanjay Kumar</b> B.Tech. (Met.), M.E.(Mech.),Ph.D., MIIF	Professor
2	<b>Dr. A. Mandal</b> B.Tech. (Mech.), M.Tech.(Prod.),Ph.D., MIIW	Professor
3	<b>Dr. A. K. Pathak</b> B.Sc.Engg.(Mech.), .Tech.(Mech.),Ph.D.,MIIW,MISTE ,MIIM	Professor
4	<b>Dr. K. K. Verma</b> M.Sc. (Maths.), M.Phil. (Applied Maths.), MIIF	Associate Professor
5	<b>Dr. Vijay Toppo</b> B.Sc.Engg.(Mech.), M.Tech.(Mfg.Engg.), PhD, MIIM, MIIF	Professor
6	<b>Dr. G. Rajamohan</b> B.E.(Mech.),M.E.(Mfg.Tech.),PhD, MIE	Associate Professor
7	<b>Dr. A. K. Sood</b> B.E.(Mech.),M.E.(Design.), Ph.D	Associate Professor & HOD
8	<b>Dr. V.M.S. Hussain</b> B.E.(Mech.),M.E.(Prod.), MIIF, Ph.D	Assistant Professor
9	<b>Dr. Ratnakar Das</b> AMIE (Mech.), M.E. (Prod.), Ph.D. (M.E.)	Assistant Professor
10	<b>Dr. Sambit Kumar Parida</b> B.E. (Mech.), M.Tech.(M.E.), Ph.D.	Assistant Professor
11	<b>Mr. Anand Mohan Murmu</b> B.Tech. (Prod.), M.Tech. (Mfg.Sc. &Engg.)	Assistant Professor



12	<b>Mr. Subrato Kumar Soren</b> B.E. (Mech.), M.E. (Thermal Engg.)	Assistant Professor
13	<b>Dr. Jagesvar Verma</b> Ph.D(V.N.I.T, Nagpur)	Assistant Professor
14	<b>Dr. Umesh Khandey</b> Ph.D(IIT Delhi)	Assistant Professor
15	<b>Dr. Aruna Thakur</b> Ph.D(NIT Rourkela)	Assistant Professor

## ACTIVITIES

### Academic Activities:

Number of subjects offered by the department:

Name of Course	No. of Subjects Offered
B.Tech. (M.E.&M.M.E.)	30
M.Tech. Courses (F.F.T.&M.E.)	12
A.D.C.(Foundry Tech. & Forge Tech.)	03

### PhD Guidance

Shariqul Hoda joined as a Fulltime Scholar with Institute Scholarship under Dr. G. Rajamohan's guidance.

### PG Guidance :

- 1) P. Sangeeth (2017-19 batch) worked on "In-process GD&T measurement on a 5-axis CNC machine". The project work was carried out at CVRDE, Chennai. Mr. P. K. Nayak of CVRDE, Chennai was the co-guide.
- 2) Suraj Verma(2017-19 batch) worked on "Flatness error evaluation in end-milled surfaces".

### PhD Completed /Ongoing :

Co-Supervisor: Prashant Kumar Pandey: (Ph.D Scholar).

### M. Tech thesis supervised:

Prof Sanjay Kumar supervised M.Tech. Thesis, Topic-. Effect of Various Parameters on Forging Behaviour of Aluminium Alloy and Stainless Steel Alloy, Student Rakesh Kumar Nayak

### M.Tech Guidance :

- a. Mr. Kanhaiya Kumar
- b. Ms. Neha Patel

### Industrial Training

Successfully completed a fifteen days Industrial Training at HEC, Ranchi by Dr. Umesh Khandey.



## Projects / Seminar/ Conference/ Presentation / Symposia/ Publications

1. M.Tech Project, Titled- "*Investigation on the Effect of Friction Stir Welding Process Parameters on 2050 Al-Li Alloy Weld*" by Jagesver Verma
2. M.Tech Project, Title-Intelligent Technology for Robotic Arc Welding by Dr. Jagesver Verma
3. M.Tech Project, Titled- "Study of various characteristics of hole quality during M-edm of nimonic c-263" supervised by Dr. Aruna Thakur.)
4. M. Tech (01) Project titled "Study of Various Characteristics of Hole Quality During M-EDM Of Nimonic C-263" by Dr. Umesh khandey
5. B.Tech (03) titled "Energy Efficiency of CNC Machining Process" by Dr. Umesh khandey
6. A.K. Sood, PCA-based desirability method for dimensional improvement of part extruded by fused deposition modelling technology pg:269, Progress in Additive Manufacturing, Year- 2019, ISSN/ISBN No. 2363-951.
7. A.K. Sood, An investigation on the feasibility of fused deposition modeling process in EDM electrode manufacturing, pg: 10, CIRP Journal of Manufacturing Science and Technology, Year 2019, ISSN/ISBN No. 1755-5817.
8. A.K. Sood, A Review and Reflection on Part Quality Improvement of Fused Deposition Modeled Parts, pg:012072, IOP Conference Series: Materials Science and Engineering, Year - 2019, ISSN/ ISBN No. - 1757-8981.
9. ArunaThakur , MukeshTak, Rakesh G.Mote, Electrochemical micromachining behavior on 17-4 PH stainless steel using different electrolytes. NAMRC 2019 at Erie, Pennsylvania, US, published in Procedia Manufacturing, Volume 34, 2019, Pages 355- 361.
10. Azim, S., Thakur, A.Gangopadhy ay, S., "Evaluation of Chip Characteristics under Dry and Wet Environment using Coated and Uncoated ToolsCOPEN - 11 December 12-14, 2019 IIT Indore". 2019
11. Chetan Tembhurkar, Ravinder Kataria, Sachin Ambade, Jagesvar Verma, "Transient Analysis of GTA-Welded Austenitic and Ferritic Stainless Steel" in Advances in Materials Processing, Vol. & year of publication : Springer, (2020), 59-65 [https://doi.org/10.1007/978-981-15-4748-5\\_6](https://doi.org/10.1007/978-981-15-4748-5_6).
12. A. Basu and Manoj Chopkar Anil Kumar, Digvijay Parganiha, Jagesvar Verma, Prasenjit Biswas, "On the synthesis and characterization of novel composite structured high-entropy alloys" in Philosophical Magazine Letters , 99(8), (2019), 302-308
13. Jagesvar Verma, Ravindra V. Taiwade, Ravinder Kataria, Kanishka Jha and Vipin Tandon, "Evolution of Metallurgical Phases and Its Co-relation with Mechanical Properties and Corrosion Resistance of 22Cr-5Ni-3Mo and 16Cr-10Ni-2Mo Dissimilar Weldments" in Metallography, Microstructure, and Analysis, 8, pages 506-516 (2019)
14. Utkarsh\_Waghmare,\_A.S.\_Dhoble,\_Ravindra Taiwade, Jagesvar\_Verma, Himanshu Vashishtha "Prediction of heat affected zone and other mechanical properties of welded joints of HSLA A588-B of jet blast deflector" in World Journal of Engineering, Volume 16 · Number 4 · (2019) 438-444
15. G. Rajamohan(2019), "Selection of parameterization method for fitting of freeform curves using uniformly spaced data", International Conference on Mechanical Engineering Design (ICMechD 2019), SSN College of Engineering, Chennai.



16. G. Rajamohanand, P. Sangeeth (2020), "On-machine measurement of geometric tolerances on a five-axis CNC machining centre", International Conference on Advances in Material Science and Mechanical Engineering (ICAMSME 2020), NBKRIST, Vidyanagar (Andhra Pradesh).
17. A.K. Sood, Title - Multi-criterion decision method for roughness optimization of fused deposition modeled parts, Book Title- Additive Manufacturing Technologies from an Optimization Perspective, ed: Kaushik Kumar, DivyaZindani and J. Paulo Davim, pub: IGI Global, Year -2019, ISBN No. 9781522591672
18. A.K. Sood, Title - An Insight on Current and Imminent Research Issues in EDM, Non-Conventional Machining in Modern Manufacturing Systems, ed: Kaushik Kumar, Nisha Kumari and J. Paulo Davim, pub: IGI Global, Year - 2019, ISBN - No. , 9781522561613
19. A.K. Sood, Title of paper - Feasibility of FDM-Electroplating process for EDM Electrode Fabrication, 2<sup>nd</sup> International conference on recent advances in materials and manufacturing technologies (IMMT 2019), Year - 2019, Organized by BITS Pilani Dubai Campus.
20. Jagesvar Verma Session Chair person in International Conference on Industrial and Manufacturing Systems (CIMS10) ,(2020-, October, 2020 at Dr B R Ambedkar National Institute of Technology (NIT), Jalandhar, India).

### Journal Papers Review

- 1) Reviewed about 7 papers for International Journal of Advanced Manufacturing Technology.

### FDP/ Short Term Course Attended

1. Aruna Thakur attended One week Course on "AICTE Training and Learning (ATAL) Academics Programme on ROBOTICS" at NIT Jamshedpur, FDP organized by NIT Jamshedpur, from: 23-27 Dec. 2019.
2. "Fundamental of Welding Science and Technology", FDP course Organized by NPTEL, Jan-Feb 2020 under MHRD.
3. "AICTE Training and Learning (ATAL) Academics Programme on ROBOTICS" at NIT Jamshedpur, FDP organized by NIT Jamshedpur, from: 23-27 Dec. 2019.
4. "Fundamentals of Finite Element Methods (FEM) and Finite Element Analysis (FEA)" One Week Short Term Course by Professor Dilip Kumar Mohanty Organized at National Institute of Foundry and Forge Technology, Hatia, Ranchi, Jharkhand, India from 15th July to 20th July, 2019.
5. Dr. Umesh Khandey has Successfully completed Faculty Development Programme (FDP) via SWAYAM-NPTEL Online Courses on Mechanics of Machining (8 weeks) and Manufacturing Process Technology I and II (12 weeks).
6. Dr. Umesh Khandey has Successfully completed a 3-days workshop on "Faculty Development Programme for Student Induction (FDP-SI)" organized by All India Council for Technical Education (AICTE).

### Invited Talks

Delivered an invited talk on "Surface metrology" in a short-term course organized by Dept. of Mechanical Engineering, Indian Institute of Technology (BHU), Varanasi during January 2020 by Dr. G. Rajamohan





## **Administrative Assignment**

### **Dr. A.K Sood:**

1. Head, Department of Manufacturing Engineering
2. Chairman, Central Computer Centre
3. Chairman, House Allotment Committee
4. Member, Library Committee
5. Member, Propertieri Committee
6. Member, Technical Evaluation Committee

### **Dr. G. Rajamohan:**

1. In-charge for Metrology Laboratory and FMS Laboratory.
2. QIP Coordinator
3. Carried out the work entrusted by the Head, ME and Director, NIFFT from time to time.

### **Dr. Aruna Thakur**

1. Programme organized as a coordinator: “E-Waste Collection & Deconstruction” 5 days programme from 26 - 30 August 2019 in National Institute of Foundry and Forge Technology, Ranchi, jointly organized by NIFFT Ranchi and NML Jamshedpur.

### **Dr. Jagesvar Verma**

1. Member of Tabulation committee -M.Tech (with reference to order no. 98/2019, 04/07/2019)
2. Performing Institute Exam duty as an Invigilator
3. Performing duty for monitoring indiscipline in Nirala Chatrawas (B.Tech 1<sup>st</sup> Year Hostel)
4. Member of new faculty scrutiny committee
5. Member Secretary of Centralized Computer Center (CCC), NIFFT Hatia, Ranchi
6. “Proposal Submitted as an Indenter for Simufact Welding and Forming Software at NIFFT
7. AICTE Sponsored Online Short Term Training Programme (STTP) on “Current And Future Trends of Advances In Material Science And Technology”





## DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING

### About Department:

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

### FACULTY :

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

### Projects / Seminar/ Conference/ Presentation / Symposia/ Publications

1. D. Roy, S. Chakraborty, A. K. Gupta, A. Basu Mallick, R O Scattergood, Carl C. Koch, Journal of Alloys and Compounds (Accepted), [IF-4.6]
2. S Chakraborty, R.Bagla, K. Sikdar, Debdas Roy, A Basumallick, Materials Chemistry and Physics 256 (2020) 123708. [IF-3.4]
3. S Chakraborty, A K Gupta, Debdas Roy, A Basumallick, Materials Letters 274 (2020) 128004[IF-3.01]



4. D. Roy, S. Chakraborty, A.K. Gupta, A. Basumallick , Carl C. Koch, Materials Letters 271 (2020) 127780[IF-3.01]
5. A. Gupta, B.Mallik, D.Roy, Materials Performance and Characterization, 9 (2020) [IF-0.67]
6. A.K. Gupta, B.Mallik, D.Roy, Material Performance and Characterization., 9(2020).
7. B. Mallik, K.Sikdar, D. Ray Material Performance and Characterisation.,8 (/2019)
8. V. Kumar, R. K. Gupta, G. Das, Materials Performance and Characterization, 9 (2020): 94-106. (I.F. 0.8)
9. V. Kumar, R. K. Gupta, G. Das, J. Inst. Eng. India Ser. D (2020). (I.F. 1.5)
10. V. Kumar, R. K. Gupta, G. Das, Materials today: Proceedings 22P4 (2020)3347-3352 (I.F. 1.3)
11. T. Maity et al. Journal of the Mechanical Behavior of Biomedical Materials 108 (2020) 103839. (I.F.-3.372)
12. M.B. Kelly et al. Journal of Electronic Materials 49 (2020) 3251-3258 (I.F.-1.676)
13. T. Maity et al. Journal of Materials Research 34 (2019) 2672-2682 (IF: 2.59)
14. Biraj Kumar Sahoo, Anjana Deva, Lalit Kumar Meena, Pratiksha Pandey, Sandip Ghosh Chowdhury, Bimal Kumar Jha, Journal of Materials Engineering & Performance, 29, 1901-1908 (2020). (I.F.-1.476)

### **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 and it is ready to meet any responsibility assigned it to facilitate the progress of different courses. The department comprises the following Subjects Physics, Chemistry, Mathematics, Environmental Engineering, Electrical Engineering, Electronics Engineering and Humanities.

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

### Faculty

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



## Activities

### A. Academic Activities

- (i) The Department of Applied Sciences & Humanities (DASH) offers courses for B.Tech.andM. Tech. programs.
- (ii) DASH offers M.Tech. programme in Environmental Engineering.

### B. Offers Doctoral Programme.

### C. Research and Development Activities

#### Doctoral Programme:

1. Ms. Sudeshna Surbhi is carrying out her doctoral programme under the supervision of Dr. S.R. Kumar.
2. Mr. Kumar Anurag is carrying out his doctoral programme under the supervision of Dr. S.R. Kumar.
3. Mr. Rohit Ghosh is carrying out his doctoral programme under the supervision of Dr. Anil Kumar (Co-supervisor).
4. Mr. J. P. Singh is carrying out his doctoral programme under the supervision of Dr. Anil Kumar (Co-supervisor).
5. Ms. Reshma Lakhra is carrying out her doctoral programme under co-supervision of Dr. Subhankar Basu.
6. Ms Ranjana Kumari is carrying out her doctoral programme under co-supervision of Prof. Anil Kumar and Dr. Subhankar Basu.
7. Mr. G.T. Tado is carrying out his doctoral programme under supervision of Prof. A. Pandey at NERIST, Nirjuli.
8. Mr. Amar Jyoti Saikia is carrying out his doctoral programme under supervision of Prof. A. Pandey at NERIST, Nirjuli.

#### M. Tech. / B. Tech Projects:

1. Waste water treatment from iron and steel industry (under Dr. Abhilash Nair).
2. Scrap tyre management through pyrolysis along with recovery of value-added products (Under Dr. Abhilash Nair).
3. Assessment of Groundwater quality of Ranchi Township Area, Jharkhand, India, using water quality index medium by Manish Kumar (Under Ms. Madhu Kumari).
4. A comparative study of waste water quality at different areas in Ranchi by Md. Layakat Ansari (Under Ms. Madhu Kumari).
5. Solar Distillation of Water for Rural Household in India by Ambesh Raman (Under Ms. Madhu Kumari).
6. Praveen Agarwal, Co-Composting of Food Waste and Agro Waste (under Dr. S. Basu).
7. Sahil Chauhan, Thermochemical degradation of mixed plastic waste via pyrolysis for value added products (under Dr. S. Basu).
8. Srija A Removal of Congo Red Dye from waste streams using membrane containing biosorbent (under Dr. S. Basu).



9. Assessment of Phytoid root zone technology on the Harmuriver in ranchi city (under Dr. Vikash K. Gupta).
10. Assessment of water treatment plant efficiency at Hatia railway station (under Dr. Vikash K. Gupta).
11. Recent Trends on Fluoride Removal From Groundwater by Vishal Kumar Parida (under Dr. H. VigneshBabu)
12. Recent Trends on Cyanide Removal From Wastewater by Shubhasikha Das (under Dr. H. Vignesh Babu).
13. Mapping and Monitoring of Water bodies and Analysis in parts of the Jhrkhand by using Geospatial Technology by Mr. Saketranjan (under Prof. Arvind Pandey).
14. Analysis of irrigation potential utilization in upper Sankh command area Gumla using Satellite data by Mr. Ashutosh Kumar (under prof. Arvind Pandey).
15. Single Axis Solar Tracking System by Shivam Dubey and Anup Kumar Chouhan, under Ms. Madhu Kumari
16. Energy Management in Manufacturing industry by Md. Janisan Alam and Vikas Kumar Singh under Ms. Madhu Kumari
17. Energy Conservation in Manufacturing Industry by Kanhaiya Kumar Singh and Sonu Kr. Paswan, under Ms. Madhu Kumari
18. DROSS Minimization in Continuous Galvanisation Line by Rishabh Kumar, under Ms. Madhu Kumari

### Projects / Seminar/ Conference/ Presentation / Symposia/ Publications

1. N. Singh, S. Basu\*, M. Balakrishnan *Comprehensive treatment scheme for distillery waste water targeting recovery of water, antioxidant compounds and biogas*, J Water Process Engineering, 38 (2020), 101663.
2. N. Singh, I. Petrini, C. Hélix-Nielsen, S. Basu\*, M Balakrishnan, *Influence of Forward Osmosis (FO) membrane properties on dewatering of molasses distillery wastewater*, J Water Process Engineering, 32 (2019), 100921.
3. N. Singh, S. Dhiman, S. Basu\* M. Balakrishnan, I. Petrinic, C. Helix-Nielsen, *Dewatering of sewage for nutrients and water recovery by Forward Osmosis (FO) using divalent draw solution*, Water Process Engineering, 31 (2019), 100853.
4. H. VigneshBabu, M.G. Monika Bai and M. Rajeshwara Rao, *Functional  $\pi$ -Conjugated Two-dimensional Covalent Organic Frameworks*, ACS Applied Materials & Interfaces, 11 (2019) 11029-11060.
5. Vikash Kumar Gupta and Saurav Raj, "Optimal Co-arrangement of Reactive Power Sources for mitigation of Transmission Loss", SEYBOLD Report Journal, 15(9), (September 2020).
6. GyatiTachangTado and Arvind Pandey, *Conductivity and Phase Transition Study of Sr<sup>2+</sup>Substituted La<sub>2</sub>Mo<sub>1.95</sub>V<sub>0.05</sub>O<sub>9- $\delta$</sub>* , Physica Status Solidi B: Basic Solid State Physics. <https://doi.org/10.1002/pssb.202000104>.
7. Amar Jyoti Saikia, P.S. Mondal and Arvind Pandey, *Synthesis and characterization of Bi<sup>3+</sup> and V<sup>5+</sup> co-substituted La<sub>2</sub>Mo<sub>2</sub>O<sub>9</sub>Phase Transitions*, 93 (2) (2020) 197-206.



8. Diptimayee Tripathy and Arvind Pandey, Studies on structural and optical properties and its correlation with the ionic conductivity of the  $\text{Bi}_2\text{VO}_{5.5}$ -based oxide ionic conductors, Solid State Ionics, 541(2019)115038.
9. Diptimayee Tripathy, Amar Jyoti Saikia, Gyati Tachang Tado and Arvind Pandey, Role of Al and Ti doping in modulating electrical properties of BIVOX system, Journal of Advanced Ceramics, 8(4) (2019)489-499.
10. S. Basu, P. K. Tiwari, R. K. Singh, Vidya S Batra, M. Balakrishnan, Pilot-Plant Study of Membrane Bioreactor (MBR) with Biomass Ash Filters for Sewage Treatment, 2nd National Conference on Sustainable Advanced Technologies for Environmental Management (SATEM-2019), IEST Sibpur, Dec 18 -20, 2019.
11. K. Suraj, A. Kumar, A. Nair, S. Basu Prediction of ambient particulate matter concentrations in and around open cast coal mine using AERMOD 2nd National Conference on Sustainable Advanced Technologies for Environmental Management (SATEM2019-), IEST Sibpur, Dec 2019, 20- 18.
12. P. Mondal and Ichiro Terasaki, "Temperature dependent photo-Seebeck effect in single crystal  $\text{Cu}_2\text{O}$ " in the "International Conference on Nano Science and Technology (ICONSAT-2020)" conference, 5th March-7th March at Biswa Bangla Convention Centre, New Town, Kolkata.

### Research & Development

1. Solar Driven Community Potable Water Purification System, Funded by Dept of Sci and Technology. Total sanctioned budget Rs.7209400 (Part of the project running at NIFFT, Ranchi with Dr. S. Basu as coordinator).
2. Chitosan based thin active layer forward osmosis (FO) membrane for sewage up-concentration and resource recovery, 21.2 Lakhs, Dr. S. Basu.
3. DST-SERB, 42 Lakhs, Dr. P. S. Mondal.

### Review of Journals

- Dr. Subhankar Basu, Water Process Engineering
- Dr. Subhankar Basu, Journal of Environmental Management
- Dr. P. S. Mondal, Journal of Applied Physics
- Dr. P. S. Mondal, Transaction of Indian Ceramic Society

### FDP/ Short Term Course Attended

#### Dr. Vikash Kumar Gupta

1. Mentoring Pedagogy and Teaching for Higher Education, Electronics & ICT Academy, Indian Institute of Technology Guwahati, 03-10 August, 2020.
2. Short Term Course in Recent Advancement in HVDC & FACTS (RAHF-2019), NIT Jamshedpur, Department of Electrical Engineering, 23-28 September, 2019.

#### Dr. Abhilash Nair

12 weeks NPTEL course (equivalent to 1.5 week FDP) on "Integrated waste management for smart city", Jul - Oct 2019, conducted by AICTE, IIT Kharagpur.



## Industrial Training

### Dr. Vikash Kumar Gupta

1. Forging, Casting, Heat Treatment and Machining, Heavy Engineering Corporation Limited, Ranchi 834003, Jharkhand, 23-12-2019 to 06-01-2020.

## Membership of Professional Bodies

1. Dr. S. Basu, Indian Membrane Society
2. Dr. P. S. Mondal, American Physical Society

## Administrative Assignment

- Dr. S.R..Kumar Head of the Department
- Dr.S.R.Kumar, Chairman Purchase Committee
- Dr.S..R. Kumar, Member Library Committee
- Dr. P. S. Mondal, CCMT-Nodal for M.Tech. counselling
- Dr. P. S. Mondal, Participated actively in institute faculty recruitment process
- Dr. P. S. Mondal, Member of the committee for AICTE, NIRF, NBA and Deemed to be university
- Dr. P. S. Mondal, PMKVY Institute coordinator
- Dr. P. S. Mondal, Hostel Warden, K. C. hostel
- Dr. P. S. Mondal, Member of Purchase Committee.
- Dr. S. Basu, Member of Campus Maintenance Committee
- Dr. S. Basu, Member Secretary of ILC
- Dr. S. Basu, Lab in-charge of Chemistry & Environmental Engineering
- Prof. Arvind Pandey, HoD
- Prof. Arvind Pandey, Chairman, AICTE, NIRF, NBA committee
- Prof. Arvind Pandey, Associate Dean (PG).







## ACADEMIC ACTIVITIES

### Regular Activities of Academic Section.

All the regular activities of Academic Section such as conducting semester examinations, publishing of results have been carried out as per schedule. Classes of First semester M.Tech.-2019, B.Tech. -2019 and ADC 2019 had been started as per schedule.

As a mark of the excellence, following student has been awarded **Gold Medal** by Ranchi University during the 33<sup>rd</sup> CONVOCATION of the University.

SN	Name of the students	Course	Branch	Batch
1	Ms. Anupama Shukla	B.Tech.	Metallurgy and Materials Engineering	2015-2019

### Admission -2019

#### 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.	Metallurgy and Material Engineering	1	1
2.	Forge Technology	1	0
3.	Foundry Technology	0	0
4.	Manufacturing Engineering	0	0
5.	DASH	3	2

#### 2. M.Tech.

Admission through CCMT-2019

Sl. No.	Branch	No. of seats	No. of seats filled
1.	Manufacturing Engineering	30	19
2.	Foundry-Forge Technology	28	16
3.	Environmental Engineering	30	10
4.	Material Science & Engineering	28	05

#### 3. B.Tech.

Admission through JoSAA/CSAB-2019

Branch	No. of seats	No. of seats filled
Manufacturing Engineering	69	59
Metallurgy and Materials Engineering	69	68



#### 4. ADC

Admission through written test conducted by the Institute.

Branch	No. of seats	No. of seats filled
Foundry Technology	46	46
Forge Technology	46	45

#### Students Passed out in 201

##### 1. M.Tech. (2017-19)

	Branch	No. of students passed out
1.	Manufacturing Engineering	22
2.	Foundry-Forge Technology	24
3.	Environmental Engineering	19
4.	Materials Science &Engineering	18

##### 2. B. Tech. (2015-19)

Branch	No. of students passed out
Manufacturing Engineering	64
Metallurgy and Materials Engineering	58

##### 3. 45th ADC

Branch	No. of students passed out
Foundry Technology	39
Forge Technology	42

#### Academic Council Meeting

1. XXXVI Meeting of Academic Council was held on 15<sup>th</sup> January-2020.





## M. Tech. Foundry-Forge Technology (2018-2020) batch

SI No.	Roll No.	JUT Registration No.	Name of the Students	Topic	Project Guide
1	FF18M01	18053790001	Abhishek Kumar	Optimization of forging parameters of steering yoke using fem based software deform-3d and taguchi method	Dr. R.K. Ohdar
2	FF18M03	18053790002	Amit Kumar	Optimization of forging parameters of connecting rod using fem based simulation software and taguchi method	Dr. R.K. Ohdar
3	FF18M04	18053790003	Amitesh Raj	Forging die design and process parameters optimization of clutch operating lever by fem based simulation	Dr. Manoj Kumar
4	FF18M06	18053790004	Ashvani Kumar	Studies on al-1.1Si-0.97Mg (6082aa) alloy behavior during solutionizing	Dr. R.R. Kulkarni
5	FF18M07	18053790005	Chavan Sumeet Subhash	Effect of mo addition on as-cast microstructures and properties of ferritic spheroidal graphite iron	Dr. Himanshu Khandelwal
6	FF18M02	18053790007	Duggempudi Akhil Babu	Casting of iron mold base for 20 ton ingot	Dr. Deepak Verma
7	FF18M09	18053790008	Gaurav Verma	To optimize the chemical composition of the ingot mould and its accessories to increase service life	Dr. K.K. Singh
8	FF18M10	18053790009	Kunal Kumar	Die design and forging process parameters optimization of selector shifter fork by fe-based simulation	Dr. Manoj Kumar
9	FF18M11	18053790010	Manoj Kumar Hk	Autonomous foundry: an implementation case study conducted at a "disa india limited" reference foundry	Dr. K.K. Singh



SI No.	Roll No.	JUT Registration No.	Name of the Students	Topic	Project Guide
10	FF18M12	18053790011	Mobeen Akhtar	Production and characterisation of ductile iron	Dr. A.K. Singh
11	FF18M13	18053790012	Narayan Shukla	To study the mechanical & metallurgical behaviour of aluminium metal matrix nanocomposite fabricated by ultrasonic assisted stir casting	Dr. Nandita Gupta
12	FF18M14	18053790013	Pankaj Kumar Ojha	Characterization of 20mnmoni55 and ss 304l steels through hot deformation route	Dr. P. Talukdar
13	FF18M15	18053790014	Prem Prakash Singh	Study of disamatic moulding and conventional moulding rigging system using magmasoft 5.4	Dr. Deepak Verma
14	FF18M16	18053790015	Ravi Shankar	Development of gear through open die forging	Dr. A.K. Pramanick
15	FF18M17	18053790016	Ravikant	Effect on microstructure and mechanical properties of ai-si alloy of semi solid casting using cooling slope	Dr. Himanshu Khandelwal
16	FF18M18	18053790017	Rishi Kumar Bharti	Rejection control of ductile iron	Dr. Amitesh Kumar
17	FF18M19	18053790018	Rohit Kumar Agrawal	Mechanical behavior of aluminium alloy composite reinforced with silicon carbide and flyash	Dr. Nandita Gupta
18	FF18M20	18053790019	Saliganti Shiva Kumar	Flow analysis of multi-gate multi-cavity system:experimental and simulation studies	Dr. Himanshu Khandelwal
19	FF18M21	18053790020	Sarojini Sahu	Die design optimization and stress analysis in forging of front axle beam using deformtm 3d software	Dr. N.K. Singh



SI No.	Roll No.	JUT Registration No.	Name of the Students	Topic	Project Guide
20	FF18M22	18053790021	Sourabh Prasad	Processing and characterization of copper coated sic particulate metal matrix composite by stir casting method	Dr. Amitesh Kumar
21	FF18M23	18053790022	Subodh Kumar Swarnkar	Simulating the effect of process parameters on the forging behaviour of aluminium alloy 7075	Dr. Vineet Chak
22	FF18M24	18053790023	Tumula Tirumala	Effect of molybdenum as an alloying element on strength of gray cast iron	Dr. A.K. Singh
23	FF18M25	18053790024	Vipin Kumar	Synthesis and characterization of aluminium based metal matrix composites by stir casting method	Dr. Amitesh Kumar

■■■



## M. Tech. Manufacturing Engineering (2018-2020) batch

SI No.	Roll No.	JUT Registration No.	Name of the Students	Topic	Project Guide
1	ME18M01	18053800001	Annada Prasad Moharana	Micro bending analysis of a sheet metal using rotating and translating tool	Dr. Ratanakar Das
2	ME18M02	18053800002	Deeksha Mishra	Numerical simulation on the effect of tool shoulder end features on deformation conditions using micro-fsw of aa6061-t6	Dr. Amitava Mandal
3	ME18M03	18053800003	Dhananjay Kumar Singh	Fast and iterative prototyping for injection molding - a case study of rapidly prototyping	Dr. Vijay Toppo
4	ME18M04	18053800004	Dinesh Kumar	An experimental study on the effect of lubricant (karanja oil) in machining of aisi 4340 steel	Dr. Ratanakar Das
5	ME18M05	18053800005	Gunduboina Sai Krishna	Evaluation of cylindricity from coordinate measurement data	Dr. G. Rajamohan
6	ME18M07	18053800006	Kanhaiya Kumar	A review on selective laser melting on aluminium alloy: processing, microstructure, property defects and future scope	Dr. A.K. Sood
7	ME18M08	18053800007	Manish Pandit	A novel integrated design fmea approach for risk prioritization in forging die design using entropy weighted and tophis methods	Dr. V.M.S. Hussain
8	ME18M10	18053800009	Neha Patel	Mathematical modeling on surface roughness by buckingham- $\pi$ theorem in additive manufacturing	Dr. A.K. Sood
9	ME18M13	18053800012	Punit Karsyal	Cladding of mild steel with tungsten carbide using tig	Mr. A.M. Murmu
10	ME18M15	18053800014	Rakesh Kumar Nayak	Effect of various parameters on forging behaviour of aluminium alloy and stainless steel	Dr. Sanjay Kumar



11	ME18M17	18053800015	Ravi Shankar Kumar	Investigation on the effect of friction stir welding process parameters on 2050 al-li alloy weld	Dr. Jagesver Verma
12	ME18M18	18053800016	Somnath Ganguly	Study of various characteristics of hole quality during $\mu$ -edm of nimonic c-263	Dr. Aruna Thakur / Dr. U. Khandey
13	ME18M24	18053800021	Yash Khandelwal	Fabrication and mechanical characterization of near net shape solid metallic block component by wire arc additive manufacturing process	Dr. K.K. Verma





## M. Tech. Materials Science & Engineering (2018-2020) batch

SI No.	Roll No.	JUT Registration No.	Name of the Students	Topic	Project Guide
1	MM18M01	18053810001	Akshay Kumar Chaturvedi	Effect of heat treatment on microstructure and corrosion behaviour of f55 super duplex stainless steel	Dr. R. K. Gupta
2	MM18M02	18053810002	Ameet Kumar	Optimization of welding process parameters and shielding gas composition for the best dissimilar joints of aisi 430 ferritic stainless steel and aisi 304l austenitic stainless steel by tig welding	Dr. Binod Kumar
3	MM18M04	18053810004	Arup Kumar Maity	Xrd analysis of hot compressed aisi 4340 steel	Dr. K. Sikdar
4	MM18M05	18053810005	Ayush Raja	Effect of thermal residual stress on corrosion properties of x65 steel	Dr. B. Mallik
5	MM18M06	18053810006	Bunty Tomar	Fatigue behaviour of gmaw welds of thermo-mechanically processed 700mc high strength steel	Dr. Tapobrata Maity
6	MM18M08	18053810008	Kumar Gautam	Grain growth kinetics of high energy ball mill cu-al alloy	Dr. K. Sikdar
7	MM18M09	18053810009	Ladi Harish	Analysis of hot deformation behavior and processing maps of microalloyed steel	Dr. B.K. Jha
8	MM18M10	18053810010	Nitin Kumar	Laser welding of 1.2Mm thick dp780 and cr340 steel sheet	Dr. D. Roy
9	MM18M11	18053810011	Sandeep Kumar	Characterization of dissimilar weld joints of aisi 430 and aisi 304l stainless steels prepared by mig welding	Dr. Binod Kumar





SI No.	Roll No.	JUT Registration No.	Name of the Students	Topic	Project Guide
10	MM18M12	18053810012	Shibananda Priyadarshi	Effect of heat treatment on microstructure and corrosion behaviour of 2205 super duplex stainless steel	Dr. R.K. Gupta
11	MM18M13	18053810013	Shubham Kumar Singh	Effect of heat treatment on microstructure and corrosion behaviour of 2507 super duplex stainless steel	Dr. R.K. Gupta
12	MM18M14	18053810014	Siddharth	Fatigue life assessment of dissimilar thickness resistance spot welded c-mn steel using weibull distribution	Dr. D. Roy
13	MM18M15	18053810015	Sonika	Design, characterization and study of the effects of ageing on microstructure and mechanical properties of higher temperature mg-sn alloy	Dr. D. Roy
14	MM18M17	18053810017	Vinod Kumar Shukla	Effect of residual stress induced by mechanical working on corrosion properties of mild steel samples	Dr. B. Mallik
15	MM18M18	18053810018	Vivek Kumar Singh	Characterization of dissimilar weld joints of aisi 430 and aisi 304l stainless steels prepared by tig welding	Dr. Binod Kumar





## M. Tech. Environmental Engineering (2018-2020) batch

SI No.	Roll No.	JUT Registration No.	Name of the Students	Topic	Project Guide
1	AS18M02	18053780001	Abadh Bihari	Change detection analysis using geo-spatial technology/ remote sensing and gis of Igr watershed bokaro district (iwmp-2/2011-12)	Dr. S.R. Kumar
2	AS18M03	18053780002	Amar Kumar	Waste foundry sand and its applications	Dr. S.R. Kumar
3	AS18M04	18053780003	Amit Goyal	Qualitative and quantitative analysis of ambient air and noise pollution by stone crusher industry in surrounding area of ranchi	Dr. Anil Kumar
4	AS18M05	18053780004	Anipireddigari Sudharshan Reddy	Scrap tyre management through pyrolysis along with recovery of valve-added products	Dr. Abhilash T. Nair
5	AS18M06	18053780005	Arasavilli Srija	Removal of congo red dye from waste streams using membrane containing bio-sorbent	Dr. S. Basu
6	AS18M07	18053780006	Ashutosh Kumar	Analysis of irrigation potential utilization in upper sankh command area gumla using satellite data	Dr. Arvind Pandey
7	AS18M08	18053780007	Chunchun Kumar	Estimation of irrigation potential utilization/ creation and gap in "dhansightoli reservoir project" in gumla district using multi seasonal satellite (landsat-8) data	Mrs. Madhu Kumari
8	AS18M09	18053780008	Deepak Rajak	Change detection analysis using geo-spatial technology/ remote sensing and gis of Igr watershed bokaro district (iwmp-3/2011-12)	Mrs. Madhu Kumari
9	AS18M10	18053780009	Faheem Akhtar	Arsenic detection by electrochemical method	Dr. P.S. Mondal



10	AS18M11	18053780010	Gaurav Bhaskar	Utilization of wave energy for electricity generation	Dr. P.S. Mondal
11	AS18M12	18053780011	Krishna Kumar Singh	Assessment of water treatment plant efficiency at hatia railway station	Dr. V.K. Gupta
12	AS18M13	18053780012	Naveen Kumar	Analysis of flue gases (smoke) from brick kiln industry by stack emission monitoring nearby ranchi	Dr. Anil Kumar
13	AS18M14	18053780013	Praveen Agrawal	Co-composting of food waste and agro-waste	Dr. S. Basu
14	AS18M15	18053780014	Ramendra Kumar	Assessment of phytoid root zone technology on the harmu river in ranchi city	Dr. V.K. Gupta
15	AS18M17	18053780015	Sahil Chauhan	Thermochemical degradation of mixed plastic waste via pyrolysis for value added products	Dr. S. Basu
16	AS18M18	18053780016	Saket Ranjan	Mapping and monitoring of water bodies and analysis in parts of the jharkhand by using geospatial technology	Dr. Arvind Pandey
17	AS18M19	18053780017	Shubhasikha Das	Recent trends on cynaide removal from wastewater	Dr. H. Vignesh Babu
18	AS18M20	18053780018	Siddharth Amber Swami	Quality assessment of reservoir's surface water of ranchi municipality	Dr. Anil Kumar
19	AS18M21	18053780019	Suraj Kumar Choudhary	Waste water treatment in the iron and steel industries	Dr. Abhilash T. Nair
20	AS18M22	18053780020	Vishal Kumar Parida	Recent trends on fluoride removal from groundwater	Dr. H. Vignesh Babu





## 46th ADC FORGE TECHNOLOGY LIST OF PROJECT

Sl. No.	Roll No.	Students Name	Title of the Project	Guide Name
1	46201	Ajay	Simulating the deformation behaviour of AL 7075 by using deform software	Mr. Vineet Chak
	46207	Arpeet Kispotta		
	46217	Md. Khalid Hussain		
2	46202	Aman Kumar	Some studies on design and manufacturing of hot forging Dies	Dr. R. K. Ohdar
	46236	Vimal Kurmar Nag		
	46212	Bhaskar Mahato		
3	46203	Aman Kr. Burnwal	Study of co-efficient of friction of different lubricants for hot forging of mild steel	Dr. Manoj Kumar
	46243	Shashi Shekhar Yadav		
	46245	Subhadip Maji		
4	46204	Animesh Kundu	A study on characterization of Forged heat treated medium carbon steel	Dr. P. Talukdar
	46227	Shilpi de		
5	46205	Anindita Das	A study on forging and heat treatment of EN.8 steel	Dr. P. Talukdar
	46244	Shilpa Paul		
	46240	Murselim SK.		
6	46206	Arindam Nayek	Effect of strain rate on mechanical properties of microalloyed steel	Dr. Manoj Kumar
	46225	Rahul Chowdhury		
	46213	Debargha Bhattacharjee		
7	46208	Asim Kumar Mirdha	Forging behaviour of Stainless steel	Dr. A. K. Pramanik
	46222	Pijush Dey		
	46235	Suraj Sena		
8	46209	Atanu Ghosh	Study of forging behavior of EN-24 alloy steel	Dr. R. K. Ohdar
	46219	Monimohan Das		
	46229	Sourav Raj		
9	46210	Bablu Kumar Poddar	Forging die design of clutch release yoke	Dr. Manoj Kumar
	46224	Prashant Kumar Singh		



Sl. No.	Roll No.	Students Name	Title of the Project	Guide Name
10	46211	Bakul Mali	Comparison of Mechanical properties of conventional forged and cyclic forged billet	Dr. Manoj Kumar
	46228	Sourav Dhara		
	46215	Goutam Maji		
11	46214	Ganesh Mandal	Study on Material behaviour of (NE-19) Forged steel	Dr. A. K. Pramanik
	46220	Kanchan Mahato		
	46242	Rajib Kr. Pal		
12	46216	Harishchandra Kr. Mall	Forging die desing and optimization of paramenters of wing nut	Dr. N.K.Singh
	46218	Manav Bhardwaj		
	46234	Sumit Kr. Gupta		
13	46223	Piush Kanti Pal	Study the Microstructure and Mechanical behavior of forged steel (EN8)	Dr. A. K. Pramanik
	46230	Subhankar Dey		
	46241	Pinaki Ghosh		
14	46231	Subodh Pal	Rejection analysis of forging component	Dr. N.K.Singh
	46232	Sudip Sardar		
	46233	Suman Batabyal		
15	46239	Jyotirmoy Pradhan	Study on forging behaviour of normalized EN-8 steel	Dr. P. Talukdar
	45223	Subhadeep Podder		





## 46th ADC FOUNDRY TECHNOLOGY LIST OF PROJECT

Sl. No.	Roll No.	Students Name	Title of the Project	Guide Name
1	46101	Abhijit Maji	Effect of mo addition on as-cast microstrictire amd properties of gray cast iron.	Dr. Anil Kumar Singh
	46109	Buddhadev Dey		
	46137	Somnath Sarkar		
2	46102	Amit Kumar Gupta	Study of Polyvinyl alcohol based core for casting	Dr. Himanshu Khandelwal
	46112	Md.Eklakum Zamma		
	46136	Shaktipad Singh Munda		
3	46103	Amit Kr. Mahato	Study the effect of copper in grey cast iron castings.	Dr. Himanshu Khandelwal
	46108	Bubai Ghorai		
	46134	Rohit Baxla		
4	46104	Amrendra Kumar	Study of nookularity and mechanical froperties of ductile iron	Dr. Amitesh Kumar
	46121	Manish Kumar		
5	46105	Ankita Das	Ultrasonic casting process	Dr. Amitesh Kumar
	46126	Panchanan Bag		
	46143	Swapan Kr. Ghosh		
6	46106	Ayan Biswas	Stady of Mechanical & Metallurgical properties of cast Al-Cr composition	Dr. Nandita Gupta
	46107	Binoy Das		
	46119	Krishnendu Saha		
7	46110	Debashis Mahato	Synthesis & characterization of al alloy si-c reinforced metal matrix composites	Dr. Amitesh Kumar
	46115	Kailash Ghoshal		
	46144	Tamal Banerjee		
8	46111	Dhananjay Kr. Yadav	Effect of chemical composition on mechanical properties & microstructure of duetile iron	Dr. Himanshu Khandelwal
	46116	Khudiya Bhagat		
	46120	Manash Kr. Char		



Sl. No.	Roll No.	Students Name	Title of the Project	Guide Name
9	46113	Hansaraj Mahto	Production and characterization of ductile iron	Dr. Anil Kumar Singh
	46130	Rajesh Paira		
	46138	Soubhik Chatterjee		
10	46114	Jitendra Nath Mahata	Study of aluminium - copper alloy	Dr. Himanshu Khandelwal
	46132	Ratul Mandal		
	46142	Suvankar Kayal		
11	46117	Kungshuk Das	Flow analysis in multi gate multi cavity system	Dr. Himanshu Khandelwal
	46123	Moazzam Ali Beg		
	46127	Prasanta Ghorai		
12	46122	Monotosh Shit	Effect of mechanical vibration on microstructure and properties of Al-alloy casting	Dr. Amitesh Kumar
	46124	Monoj Mal		
	46141	Surajit Biswas		
13	46125	Neha Thakur	Effect of alloying element on gray cast iron natural aging	Dr. Nandita Gupta
	46145	Umang Kr. Singh		
	46146	Vishal Ganguly		
14	46118	Komal Kumari Patwa	Effect of chromium, molybdenum and manganese on tensile properties and microstructure of spheroidal graphite iron.	Dr. Nandita Gupta





## 46th ADC FORGE TECHNOLOGY LIST OF SEMINAR

Sl. No.	Roll No.	Students Name	Title of the Seminar	Guide
1	46201	Ajay	Powder Forging	Mr. Vineet Chak
2	46202	Aman Kumar	Study of forging Defect	Dr. R. K. Ohdar
3	46203	Aman Kumar Burnwal	High Energy rate forging	Dr. Manoj Kumar
4	46204	Animesh Kundu	Forging hammers	Dr. P. Talukdar
5	46205	Anindita Das	Forging Lubrication	Dr. P. Talukdar
6	46206	Arindam Nayek	Selection of Forging Equipement for Different Material	Dr. Manoj Kumar
7	46207	Arpeet Kispotta	Forging defects in forging & remedy	Mr. Vineet Chak
8	46208	Asim Kumar Mirdha	Hot Deformation behaviour of Martensitic Stainless steel	Dr. A.K.Pramanik
9	46209	Atanu Ghosh	Magnetic Particle Inspection	Dr. R. K. Ohdar
10	46210	Bablu Kumar Poddar	Induction billet heating	Dr. Manoj Kumar
11	46211	Bakul Mali	Forging defects and remedies	Dr. Manoj Kumar
12	46212	Bhaskar Mahato	Study on forging lubricants	Dr. R. K. Ohdar
13	46213	Debargha Bhattacharjee	Eliminating of void by open die forging	Dr. Manoj Kumar
14	46214	Ganesh Mandal	Study on Ring Rollig Process	Dr. A. K. Pramanik
15	46215	Goutam Maji	Die life improvement	Dr. Manoj Kumar
16	46216	Harishchandra Kr. Mall	Powder Forging	Dr. N.K. Singh
17	46217	Md. Khalid Hussain	Liquid forging	Mr. Vineet Chak
18	46218	Manav Bhardwaj	Reduction of scrap in forging	Dr. N. K. Singh
19	46219	Monimohan Das	Isothermal forging	Dr. R. K. Ohdar
20	46220	Kanchan Mahato	Application of NDT test on forged component	Dr. A. K. Pramanik
21	46222	Pijush Dey	Hot Deformation behaviour of Ferritic Stainless steel	Dr. A. K. Pramanik
22	46223	Piyush Kanti Pal	Improvement of die life	Dr. A. K. Pramanik
23	46224	Prashant Kumar Singh	Green forging of automotive component	Dr. Manoj Kumar





Sl. No.	Roll No.	Students Name	Title of the Seminar	Guide
24	46225	Rahul Chowdhury	Industry 4.0 and its application to forge industry	Dr. Manoj Kumar
25	46227	Shilpi de	Analysis of defects after heat treatment of forged steel	Dr. P. Talukdar
26	46228	Sourav Dhara	Reduction of forging rejection due to urder fill	Dr. Manoj Kumar
27	46229	Sourav Raj	Powder forging / Metallurgy	Dr. R. K. Ohdar
28	46230	Subhankar Dey	Optimize die Loading time	Dr. A. K. Pramanik
29	46231	Subodh Pal	Factor effecting die filling	Dr. N. K. Singh
30	46232	Sudip Sardar	Mpi process effective crack detection	Dr. N. K. Singh
31	46233	Suman Batabyal	Forging die life improvement	Dr. N.K. Singh
32	46234	Sumit Kr. Gupta	effect of lubrication in forging	Dr. N. K. Singh
33	46235	Suraj Sena	Hot deformation behaviour of austenitic stainless steel	Dr. A. K. Pramanik
34	46236	Vimal Kr. Nag	Flushless forging an overuiew	Dr. R. K. Ohdar
35	46239	Jyotirmoy Pradhan	Forging defects and its remedies	Dr. P. Talukdar
36	46240	Murselim SK	Surface hardening of steel	Dr. P. Talukdar
37	46241	Pinaki Ghosh	Forging defects and Their Remedies	Dr. A. K. Pramanik
38	46242	Rajib Kr. Pal	Study on aluminium forging and application	Dr. A. K. Pramanik
39	46243	Shashi Shekhar Yadav	Recnt development for hot die coating for forging	Dr. Manoj Kumar
40	46244	Shilpa Paul	Forging die Materials	Dr. P. Talukdar
41	46245	Subhadip Maji	Die lubricant for cold forging	Dr. Manoj Kumar
42	45223	Subhadeep Podder	Die life improvement	Dr. P. Talukdar





## 46th ADC FOUNDRY TECHNOLOGY LIST OF SEMINAR

Sl. No.	Roll No.	Students Name	Title of the Seminar	Guide
1	46101	Abhijit Maji	Study of cast iron	Dr. A. K. Singh
2	46102	Amit Kumar Gupta	Analysis of defect in investment casting causes & remedies	Dr. Himanshu Khandelwal
3	46103	Amit Kumar Mahato	Casting defects analysis and their remedies	Dr. Himanshu Khandelwal
4	46104	Amrendra Kumar	Dual phase steel	Dr. Amitesh Kumar
5	46105	Ankita Das	Methodology of grain refinement & its effect on mechanical properties of casting	Dr. Amitesh Kumar
6	46106	Ayan Biswas	Nanoparticles & their role in quality casting production	Dr. Nandita Gupta
7	46107	Binoy Das	Latest software in foundry technology for betterment of casting	Dr. Nandita Gupta
8	46108	Bubai Ghorai	Pollution control in foundries	Dr. Himanshu Khandelwal
9	41109	Buddhadeb Dey	Study of SG iron	Dr. Anil Kumar Singh
10	46110	Debashis Mahato	Core Making based on organic & inorganic binder	Dr. Amitesh Kumar
11	46111	Dhananjay Kr. Yadav	Melt treatment in ductile iron	Dr. Himanshu Khandelwal
12	46112	Md. Eklakul Zamma	Review of core making process in foundry industry	Dr. Himanshu Khandelwal
13	46113	Hansaraj Mahto	Study about alloy steel	Dr. Anil Kumar Singh
14	46114	Jitendra Nath Mahata	Study of the effect of copper in ductile iron castings	Dr. Himanshu Khandelwal
15	46115	Kailash Ghoshal	Safety measures in foundry	Dr. Amitesh Kumar
16	46116	Khudiya Bhagat	Investigation of cast iron processing to produce controlled dual graphite structure in casting	Dr. Himanshu Khandelwal



Sl. No.	Roll No.	Students Name	Title of the Seminar	Guide
17	46117	Kingshuk Das	Review of various type of gating system used in foundry industry	Dr. Himanshu Khandelwal
18	46118	Komal Kumari Patwa	Review the analysis of steel casting defects for quality improvement of sand the carting.	Dr. Nandita Gupta
19	46119	Krishnendu Saha	Ablation technique an advance casting	Dr. Nandita Gupta
20	46120	Manish Kumar Char	Effect of wall thiceness on mechanical properties of ductile iron	Dr. Himanshu Khandelwal
21	46121	Manish Kumar	Effect of nodularity & nodule count on mechanical properties of ductile iron	Dr. Amitesh Kumar
22	46122	Manotosh Shit	Semi-solid casting	Dr. Amitesh Kumar
23	46123	Moazzam Ali Beg	Study of 3D printing and their advantages in foundry	Dr. Himanshu Khandelwal
24	46124	Monoj Mal	Rapid prototyping & it's application in foundry	Dr. Amitesh Kumar
25	46125	Neha Thakur	Self Healing in metal casting	Dr. Nandita Gupta
26	46126	Panchanan Bag	Techniques to produced insitu composites by casting process	Dr. Amitesh Kumar
27	46127	Prasanta Ghorai	Review of ultrasonic casting process	Dr. Himanshu Khandelwal
28	46130	Rajesh Paira	Study about stainless steel	Dr. Anil Kumar Singh
29	46132	Ratul Mondal	Casting defect analysis through Non destructive test	Dr. Himanshu Khandelwal
30	46134	Rohit Baxla	Letest development of centrifugal casting process	Dr. Himanshu Khandelwal
31	46136	Shaktipad Singh Munda	Review og high pressure molding machine used in foundry industry	Dr. Himanshu Khandelwal
32	46137	Somnath Sarkar	Study of White cast iron	Dr. Anil Kumar Singh
33	46138	Soubhik Chatterjee	Nonferrous castings	Dr. Anil Kumar Singh
34	46141	Surajit Biswas	Metal injection molding	Dr. Amitesh Kumar



Sl. No.	Roll No.	Students Name	Title of the Seminar	Guide
35	46142	Suvankar Kayal	Study the effect of copper in gray cast iron castings	Dr. Himanshu Khandelwal
36	46143	Swapan Kr. Ghosh	Slope cooling casting	Dr. Amitesh Kumar
37	46144	Tamal Banerjee	Energy conservation in foundry	Dr. Amitesh Kumar
38	46145	Umang Kr. Singh	Autonomous optimization of casting processes and designs	Dr. Nandita Gupta
39	46146	Vishal Ganguly	Improving ergonomics and safety in foundry	Dr. Nandita Gupta





## GENERAL ADMINISTRATION

### APPOINTMENT

Sl.No.	Name	Designation	Date of Joining
1.	Dr. Umesh Khandey	Assistant Professor	04/06/2019
2.	Dr. Ponappa K	Assistant Professor	07/06/2019
3	Dr. Arvind Pandey	Professor	10/06/2019
4	Dr. Jagesvar Verma	Assistant Professor	12/06/2019
5	Dr. Sriparna Chattopadhyay	Assistant Professor	12/06/2019
6	Dr. Bimal Kumar Jha	Professor	17/06/2019
7	Dr. H. Vignesh Babu	Assistant Professor	28/06/2019
8.	Dr. Deepak Kumar	Assistant Professor	01/07/2019
9.	Dr. Aruna Thakur	Assistant Professor	01/07/2019
10	Dr. Abhilash T. Nair	Assistant Professor	04/07/2019
11	Dr. Tapabrata Maity	Assistant Professor	04/07/2019
12	Dr. Himanshu Khandelwal	Assistant Professor	08/07/2019
13	Sri U. C. Prasad	Registrar	22/07/2019
14	Dr. Rahul R. Kulkarni	Assistant Professor	13/08/2019
15	Sri K. P. Pannigrahi	Dy. Registrar	13/11/2019
16.	Mr. Santosh Prasad,	Accountant	17/01/2020

### RESIGNATION

Sl. No.	Name	Designation	Date of Released
1	Dr. Ponappa K.	Assistant Professor	29/11/2019

### RETIREMENT

Sl.No.	Name	Designation	Date of Retirement
1	Mr. Amrit Kachhap	Driver	31/10/2019



### STAFF STRENGTH AS ON 31.03.2020

Director	01
Professor	17
Associate Professor	07
Assistant Professor	25
Registrar	01
Dy. Registrar	01
Sr. Medical Officer	01
Librarian Sr.	01
Accountant	01
Assistant Registrar	02
Assistant Superintendent Workshop	01
Hindi Officer	01
Sr. Technical Assistant	03
Assistant	03
Upper Division Clerk	04
LDC/Typist	01
Technician Gr. "A"	01
Technician Gr. "B"	05
Peon	04
Mali	01
Laboratory Attendant	05
Sweeper	01
Cook	02
Total :	89





## LIBRARY AND DOCUMENTATION CENTRE

### EXISTING FACILITIES:

The Library and Documentation Centre of NIFFT rendering valuable services to the Institute and Users it has 51450 reading materials (Books, Journals, Standards, Transparencies, Slides, Video Cassettes and Microfilms etc.)

The Library is kept open from 09:00 AM to 10:00 PM on all Monday to Friday and Saturday & Sunday 09:00 A.M. to 05:30 P.M. The Centre provides Reading Facilities, Borrowing Facilities, References Services, Reprography Services, Inter Library Loan, Binding and Audio-Visual Facilities to its users. The Library has the following users viz, faculties, students and staff of the Institute and provides sitting space to about 100 people at a time.

### NEW SERVICES:

1. Library is providing online access to e-resources through Elsevier B.V.
  - (i) **Science Direct Two Subject:-**
    - # Engineering
    - # Material Science
2. Centre Subscribed 61 nos. Print Journals,
3. NEW ADDITION:- The centre added 140 Books during the period.
4. DOCUMENTATION BULLETIN WERE PROVIDED ON FOLLOWING TOPICS
  - (i) Aluminium alloy Casting
  - (ii) Forging Practice & Heat Treatment
  - (iii) Moulding and Core Making Practice for Quality Casting
5. Renovation work of Toilet of library building has been completed.





## HOSTEL

Residential facilities are provided to students in four boys' hostels and one girls' hostel. The detail about each hostel is provided below.

1. NiralaChatrawas
2. Homi J BhabaChatrawas
3. M. VisveshwarayaChatrawas
4. Jagdish Chandra Bose Chatrawas
5. Kalpana Chawla Chatrawas

Name	Hostel's Warden	Type of Hostel	Types of Accommodation
Nirala Chatrawas	Dr. Debdas Roy	Boys	150Double/triple
H.J.B. Chatrawas	Mr. Vineet Chak	Boys	300Double
M.V. Chatrawas	Dr. Ratnakar Das	Boys	176Single
J.C.BoseChatrawas	Mr. Ajit Kumar Pramanick	Boys	240Single
Kalpana Chawla Single/double/triple Chatrawas	Dr. Partha Sarathi Mondal	Girls	100







## INDUSTRIAL LIAISON CELL

### COMMITTEE MEMBERS

<b>Dr. K.K. Singh</b> Professor Department of Foundry Technology	Chairman
<b>Dr. Subhankar Basu</b> Assistant Professor Department of Applied Science and Humanities	Member
<b>Dr. Ratnesh Gupta</b> Assistant Professor Department of MME	Member
<b>Dr. Umesh Khande</b> Assistant Professor Department of ME	Member Secretary





## PLACEMENT 2019-20

Sl. No.	Company	B.tech.		Advance Diploma		M.tech.			
		Highest Pay- 6.0 LPA		Highest Pay- 4.7 Lpa		Highest Pay- 4.2 LPA			
		Average Pay- 4.05 LPA		Average Pay- 3.4 LPA		Average Pay- 3.4 LPA			
		ME (36)	MME (33)	Foundry (37)	Forge (42)	FFT (21)	ME (20)	EE (20)	MSE (15)
1	Grey B	1	1	-	-	-	-	-	-
2	Patil Rail Infrastructure	-	1	13	-	-	-	-	-
3	Kpmg	-	1	-	-	-	-	-	-
4	Shriram Pistons & Rings	1	3	2	1	-	-	-	-
5	Tata Autocomp	2	1			-	-	-	-
6	Mpm Foundry Solutions	1	-	-	-	1	-	-	-
7	Viraj Profiles	5	3	-	6	-	-	-	-
8	Rn Gupta And Co. Ltd	-	1	-	6	-	-	-	-
9	Weldomac Engineering Pvt. Ltd.	2	-	-	-	-	-	-	-
10	Jyva Engineering Pvt. Ltd.	-	2	-	-	-	-	-	-
11	Midhani	-	-	2	4	-	-	-	-
2	Zenith	-	-	-	2	-	-	-	-
13	Sunstar Precision Forge Ltd.	-	-	-	6	-	-	-	-
14	Advance Forging Pvt. Ltd.	-	-	-	1	-	-	-	-
15	Ramkrishna Forgings Ltd.	-	-	-	5	-	-	-	-
16	Parason Machinery India Pvt. Ltd.	-	-	2	-	-	-	-	-
17	Blue Star Casting	-	-	1	-	1	-	-	-
18	Bharatiya Group	-	-	1	-	-	-	-	-
19	Gn Altech	-	-	3	-	-	-	-	-
20	Isgec			1					
21	Esko Dia Casting			2					
22	Vision Tech							1	
23	Calcutta Export	-	-	6	-	-	-	-	-
24	3D Foundry	-	-	-	-	1	-	-	-
25	Balaji Product		1						



Sl. No.	Company	B.tech.		Advance Diploma		M.tech.			
		Highest Pay- 6.0 LPA		Highest Pay- 4.7 Lpa		Highest Pay- 4.2 LPA			
		Average Pay- 4.05 LPA		Average Pay- 3.4 LPA		Average Pay- 3.4 LPA			
		ME (36)	MME (33)	Foundry (37)	Forge (42)	FFT (21)	ME (20)	EE (20)	MSE (15)
26	Jsw	8	1						
27	Bhartiya Petro	1		1		1			
28	Byju Learning	1							
29	Ksb Pump	1	4						
30	Innovative Clad Solution		1						
31	Bonfiglioli					1			
32	Havells		1						
33	Deemrolls		1			1			
34	Oriental Foundry	1							
35	Ducast	1	2						
36	Higher Education /Gov Job	9	7	1	3	10	-	10	-
	Students Placed	34/36.	31/33	35/37	34/42	15/21.	0/20.	11/20.	0/15.
	Placement Percentage	94%	94%	91%	81%	71%	0%	55%	0%





## NIFFT STUDENT GYMKHANA

### COMMITTEE MEMBERS

<b>Dr. Shubhankar Basu</b> Assistant Professor Department of Applied Science and Humanities	Chairman
<b>Dr. Ratnakar Das</b> Assistant Professor Department Of ME	Member
<b>Dr. Vikash Gupta</b> Assistant Professor Department of Applied Science and Humanities	Member
<b>Dr. Sriparna Chattopdhyay</b> Assistant Professor Department of Applied Science and Humanities	Member
<b>Sri Sudhir Kumar</b>	Member Secretary

Following were the events that took place in the session 2019-2020 :-

1. Independence day cultural programme.
2. Month long Swachta Pakhwada - Street play.
3. Drawing Competition.
4. Drama
5. Awareness Programme within campus and nearby NIFFTcampus and villages.
6. Plantation
7. Vivekananda statue installation and cultural programme.
8. Spic Macay programme of Pandit Bhajan Supori.
9. Jinks Pranav Annual Fest.
10. Technical Fest.
11. Night Cricket match inter hostel.
12. Inter Hostel sports extravaganza.
13. 26 January, Republic Day celebrations.
14. Lecture of young entrepreneurs on start-up
15. Regular classes os Gymnasium
16. Martial Arts Jeet Konado.
17. Modern music & Instruments.



## HINDI CELL

Hindi Cell of the Institute is working in accordance with official language policy of Govt. of India and annual programme issued there under. The activities of Hindi Cell during the years were as follows:

- 1) Hindi workshop was organized for employees.
- 2) Day today translation work & other work related to O.L was performed by Hindi Cell.
- 4) The Institute has regular representation in the meetings of TOLIC
- 5) Hindi Officer contributed in the follows Committees :-
  - Printing Committee
  - Annual Report Committee
  - Committee on sexual harassment against women
  - Committee for selection of Gender champion
  - Acting as Asstt. Public Information officer
  - In-charge Administration.



# **National Institute of Foundry & Forge Technology**

**A Centrally Funded Technical Institute under MHRD  
(Govt, of India)**

**HATIA, RANCHI- 834003 (JHARKHAND)**



## **Statement of Accounts**

**For the Financial Year 2019-20**

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

**Audited by**

**M/s Kumar Vikash & Company**

**(Chartered Accountants)**

**Ranchi**



# National Institute of Foundry & Forge Technology

## Statement of Accounts For the Financial Year 2019-20

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**NATIONAL INSTITUTE OF FOUNDRY AND FORGE TECHNOLOGY**  
HATIA, RANCHI-834003

BALANCE SHEET AS ON 31st March, 2020

SOURCES OF FUNDS		Schedule	Current Year 2019-20	Previous Year 2018-19
CORPUS/CAPITAL FUND		1	1,10,38,23,585.65	1,21,27,38,608.94
CURRENT LIABILITIES		2	31,43,19,063.70	3,37,68,729.20
HEFA LOAN		2 (A)	2,13,45,881.00	-
	<b>TOTAL</b>		<b>1,43,94,88,530.35</b>	<b>1,24,65,07,338.14</b>
APPLICATION OF FUNDS		Schedule	Current Year 2019-20	Previous Year 2018-19
<b>FIXED ASSETS</b>		3		
a) Tangible Assets			14,61,20,395.37	14,01,86,444.28
b) Capital work-In-Progress			78,03,83,547.00	75,66,66,139.00
c) Intangible Assets			95,98,691.00	30,61,937.40
<b>CURRENT ASSETS</b>		4	34,77,54,826.92	27,64,15,632.40
<b>LOANS, ADVANCES &amp; DEPOSITS</b>		5	15,56,31,070.06	7,01,77,185.06
	<b>TOTAL</b>		<b>1,43,94,88,530.35</b>	<b>1,24,65,07,338.14</b>

AS INTERNAL AUDITOR

For: M/s Kumar Vilash & Co. (CHARTERED ACCOUNTANTS)

CA. Vikash Kumar (Proprietor)  
MEMBERSHIP NO.: 423928



*Vilash Kumar*  
Deputy Registrar

**कुलसचिव/Dy. Registrar**  
निफ्ट, राँची/NIFFT, Ranchi

*[Signature]*  
REGISTRAR  
NIFFT, RANCHI

*[Signature]*  
DIRECTOR  
निदेशक  
निफ्ट, हटिया, राँची-3  
NIFFT, HATIA, RANCHI-3





**SCHEDULE - 1 - CORPUS/CAPITAL FUND**

Particulars	Current Year	Previous Year
Balance at the beginning of the year	1,21,27,38,608.94	1,02,18,11,821.67
<b>Add:</b> Contributions towards Corpus/Capital fund	-	-
<b>Add:</b> Grants from UGC, Govt. of India, state Government to the extent utilised for capital expenditure	-	-
<b>Add:</b> Assets Purchased out of Earmarked Funds	-	-
<b>Add:</b> Assets Purchased out of Sponsored Projects, where ownership vests in the institution	-	-
<b>Add:</b> Capital Grants received from Ministry of Human Resource Development (Govt. of India)	12,76,44,000.00	14,00,00,000.00
<b>Add:</b> Assets Donated / Gifts Received	-	-
<b>Add:</b> Others Additions (Building appreciation)	-	-
<b>Less:</b> Others Deduction (Custom Duty paid during the FY 2016-17 for SERB Project new)	-	-
<b>Add:</b> Excess of Income over Expenditure transferred from the Income & Expenditure Account	1,41,19,976.71	5,09,26,787.27
<b>TOTAL</b>	<b>1,35,45,02,585.65</b>	<b>1,21,27,38,608.94</b>
<b>Deduct:</b> Deficit transferred from Income & Expenditure Account	-	-
<b>Deduct:</b> Amount reversed during the year based on CAG observation	25,06,79,000.00	-
<b>Balance at the year end</b>	<b>1,10,38,23,585.65</b>	<b>1,21,27,38,608.94</b>





**SCHEDULE - 2 - CURRENT LIABILITIES**

CURRENT LIABILITIES		Current Year	Previous Years
1	Deposit From Staff	14,46,743.00	13,77,524.00
2	Deposit From Student		
a	Caution Money	65,65,853.50	67,69,103.50
b	Unclaimed fees	7,38,550.00	5,10,950.00
3	Deposit-Others		
a	Earnest Money	9,36,841.00	9,36,841.00
b	Security Deposit	1,74,738.30	1,74,738.30
4	Statutory Liabilities		
a	LIC Premium	6,700.40	6,698.40
b	TDS U/s 192A	5,88,469.00	38,444.00
c	TDS U/s 194C	36,476.00	48,957.00
d	TDS U/s 194J	(9,139.00)	1,049.00
e	GPf Deduction from Salary	31,60,000.00	65,380.00
f	Employees Loan Repayment	19,607.00	19,607.00
g	Professional Tax on Salary	46,821.00	6,807.00
h	New Pension Scheme (Employees Contribution)	17,313.00	33,636.00
i	New Pension Scheme (Employer Contribution)	1,04,580.00	33,636.00
j	GIS Premium	4,800.00	-
k	CPF Deduction from Salary	5,81,831.00	-
5	Other Current Liability		
a	Receipt against Sponsored Projects	69,47,829.00	41,19,095.00
b	Receipt against Sponsored Fellowship & Scholarship	32,76,463.00	25,42,523.00
c	Other Liabilities		
a	Account Payable/ receivable	2,23,441.00	2,23,441.00
b	AICTE	1,40,000.00	1,40,000.00
c	Grant From CBSE Board	50,000.00	50,000.00
d	M/s Total Library Solution	92,784.00	92,784.00
e	NIFFT Alumni Association	5,89,650.00	4,78,200.00
f	Provisional Expenses	3,08,89,350.00	1,60,99,315.00
g	Amount Payable to Manoj Kumar	45,000.00	-
h	Kumar Aman-Miss Fees	13,500.00	-
i	Amount Received From IIPF Project A/c-27301004765	11,23,915.50	-
j	Honorarium payable to CSAB	63,600.00	-
k	Unutilized Grant refundable to MHRD	24,77,76,982.00	-
l	Interest Earned on Grant refundable to MHRD	86,66,365.00	-
		<b>31,43,19,063.70</b>	<b>3,37,68,729.20</b>





SCHEDULE - 2 (A) HEFA LOAN

	Particulars	Current Year	Previous Year
1	LOAN FROM HEFA (Amount direct paid to CPWD during the year)	2,13,45,881.00	-
	TOTAL	2,13,45,881.00	-



**SCHEDULE - 2(b) - SPONSORED PROJECTS**

Sr. No.	Name of the Project	Opening Balance		Receipts	Total	Expenditure	Closing Balance	
		Credit	Debit				Credit	Debit
1	2	3	4	5	6	7	8	9
1	Direct Admission of Students Abroad(DASA)	1,28,175	-	-	1,28,175	-	1,28,175	-
2	Project-Board of Research in Nuclear Science(BRNS)	16,39,363	-	-	16,39,363	-	16,39,363	-
3	Project-Science and Engineering Research Board(Old)	1,80,450	-	-	1,80,450	-	1,80,450	-
4	Project-Science & Engineering Research Board(New 1)	1,36,524	-	15,56,988	16,93,512	13,96,663	2,96,849	-
5	Project-Science & Engineering Research Board(New 2)	9,78,525	-	16,334	9,94,859	9,10,798	84,061	-
6	Technical Education Quality Improvement Programme	18,704	-	-	18,704	-	18,704	-
7	Buriapur Surgical Cluster, MSME (West Bengal)	9,26,759	-	6,74,650	16,01,409	4,12,815	11,88,594	-
8	Unnat Bharat Abhiyan	1,10,595	-	6,497	1,17,092	21,186	95,906	-
9	Science Research Engineering Board (P.S.Mondal)	-	-	28,46,632	28,46,632	-	28,46,632	-
10	Project Development Institute-Nigeria	-	-	4,69,095	4,69,095	-	4,69,095	-
	Total	41,19,095	-	55,70,196	96,89,291	27,41,462	69,47,829	-

**SCHEDULE - 2(c) - SPONSORED FELLOWSHIP AND SCHOLARSHIPS**

Sr. No.	Name of the Project	Opening Balance		Receipts	Total	Expenditure	Closing Balance	
		Credit	Debit				Credit	Debit
1	2	3	4	5	6	7	8	9
1	Govt. of India SC/ST Scholarship	13,04,160	-	23,46,400	36,50,560	13,76,360	22,74,200	-
2	S N Sinha Memorial Scholarship	10,000	-	-	10,000	5,000	5,000	-
3	State Scholarship for Students	12,28,363	-	9,63,950	21,92,313	11,95,050	9,97,263	-
	Total	25,42,523	-	33,10,350	58,52,873	25,76,410	32,76,463	-





SCHEDULE - 3 FIXED ASSETS (D.8)

Sl. No	Assets Heads	Rate of Depreciation (%)	Gross Block			Depreciation for the Year			Net Block	
			Opening Balance 01.04.2019	Additions	Closing Balance	Depreciation Opening Balance	Depreciation for the Year	Total Depreciation	As on 31.03.2020	As on 31.03.2019
1	2	3	4	5	6	7	8	9=7+8	10=11+9	11
1	Land	0%	-	-	-	-	-	-	-	-
2	Site Development	0%	-	-	-	-	-	-	-	-
3	Buildings	2%	16,65,43,001.73	-	16,65,43,001.73	3,35,37,998.22	31,30,360.03	6,28,68,838.25	10,36,74,143.48	10,70,05,003.51
4	Roads & Bridges	2%	-	-	-	-	-	-	-	-
5	Tube wells & Water Supply	2%	-	-	-	-	-	-	-	-
6	Sewage & Drainage	2%	-	-	-	-	-	-	-	-
7	Electrical Installation and Equipment	5%	12,25,28,261.97	-	12,25,28,261.97	11,15,45,526.02	61,26,413.10	11,76,71,939.12	48,34,028.12	1,09,60,441.22
8	Plant & Machinery	5%	-	-	-	-	-	-	-	-
9	Scientific & Laboratory Equipment	8%	-	-	-	-	-	-	-	-
10	Office Equipment	7.5%	15,41,790.36	-	15,41,790.36	15,41,790.36	-	15,41,790.36	-	-
11	Audio Visual Equipment	7.5%	-	-	-	-	-	-	-	-
12	Computers & Peripherals	20%	-	-	-	-	-	-	-	-
13	Furniture, Fixtures & Fittings	7.5%	2,24,07,743.89	-	2,24,07,743.89	2,17,13,534.25	6,88,162.29	2,24,01,696.54	-	6,88,162.29
14	Veehicles	10%	18,35,719.00	-	18,35,719.00	18,35,719.00	-	18,35,719.00	-	-
15	Lb. Books & Scientific Journals	10%	10,05,24,632.58	-	10,05,24,632.58	9,97,02,996.48	-	9,97,02,996.48	-	-
16	Small Value Assets	100%	-	-	-	-	-	-	-	-
17	Equipment UNESCO AID	-	24,97,217.00	-	24,97,217.00	24,97,217.00	-	24,97,217.00	-	-
	<b>Total (A)</b>		<b>41,78,78,366.53</b>	-	<b>41,78,78,366.53</b>	<b>29,83,74,781.33</b>	<b>1,01,45,435.42</b>	<b>30,85,20,216.75</b>	<b>10,85,08,171.60</b>	<b>11,86,53,607.02</b>
18	Capital work in Progress (B)		-	-	-	-	-	-	-	-
19	Intangible Assets									
19	Computer Software	40%	-	-	-	-	-	-	-	-
20	E-journals	40%	-	-	-	-	-	-	-	-
21	Patents	5 Years	-	-	-	-	-	-	-	-
	<b>Total (C)</b>		-	-	-	-	-	-	-	-
	<b>Grand Total (A+B+C)</b>		<b>41,78,78,366.53</b>	-	<b>41,78,78,366.53</b>	<b>29,83,74,781.33</b>	<b>1,01,45,435.42</b>	<b>30,85,20,216.75</b>	<b>10,85,08,171.60</b>	<b>11,86,53,607.02</b>





SCHEDULE - 3A - PLAN FIXED ASSETS

Sl. No	Assets Heads	Rate of Depreciation (%)	Gross Block			Depreciation for the Year			Net Block	
			O.B. As on 01.04.2019	Additions	Closing Balance	Depreciation OB	Depreciation for the Year	Total Depreciation	As on 31.03.2020	As on 31.03.2019
1	2	3	4	5	6=4+5	7	8	9=7+8	10=11+5-8	11
1	Land	0%	-	-	-	-	-	-	-	-
2	Site Development	0%	-	-	-	-	-	-	-	-
3	Buildings	2%	-	-	-	-	-	-	-	-
4	Roads & Bridges	2%	-	-	-	-	-	-	-	-
5	Tube wells & Water Supply	2%	-	-	-	-	-	-	-	-
6	Sewrage & Drainage	2%	-	-	-	-	-	-	-	-
7	Electrical installation and Equipment	5%	-	-	-	-	-	-	-	-
8	Plant & Machinery	5%	21,33,658.00	13,73,578.00	35,07,236.00	1,85,509.75	1,75,361.80	3,60,871.55	31,46,364.45	19,48,148.25
9	Scientific & Laboratory Equipment	8%	94,56,646.00	23,15,304.00	1,17,71,950.00	8,80,193.44	9,41,756.00	18,21,949.44	99,50,000.56	85,78,452.56
10	Office Equipment	7.5%	4,28,205.00	2,06,500.00	6,34,705.00	58,367.63	47,602.88	1,05,970.51	5,28,734.49	3,69,837.37
11	Audio Visual Equipment	7.5%	5,86,259.00	-	5,86,259.00	91,922.93	43,969.43	1,35,892.36	4,50,366.64	4,94,336.07
12	Computers & Peripherals	20%	30,59,697.00	87,83,367.00	1,18,43,064.00	13,59,413.00	29,68,612.80	37,28,025.80	81,15,030.20	17,00,284.00
13	Furniture, Fixtures & Fittings	7.5%	17,65,908.00	6,46,919.00	24,12,827.00	2,31,859.97	1,80,962.05	4,12,822.02	20,00,004.97	15,34,048.02
14	Vehicles	10%	47,28,110.00	-	47,28,110.00	14,93,461.90	4,72,811.00	19,66,272.90	27,61,837.10	32,34,648.10
15	Lib. Books & Scientific Journals	10%	17,99,283.00	80,42,434.00	98,41,717.00	3,29,758.70	9,84,171.70	13,15,930.40	85,27,786.50	14,69,524.30
16	Tube wells & Water Supply	2%	2,10,300.00	2,09,950.00	4,20,250.00	8,412.00	8,405.00	16,817.00	4,03,433.00	2,01,888.00
17	Small Value Assets	100%	-	-	-	-	-	-	-	-
	<b>Total (A)</b>		<b>2,41,68,066.00</b>	<b>2,15,78,052.00</b>	<b>4,57,46,118.00</b>	<b>46,38,899.32</b>	<b>52,23,652.66</b>	<b>98,62,551.98</b>	<b>3,58,83,566.01</b>	<b>1,95,29,166.67</b>
18	Capital work in Progress (B)		<b>75,66,66,139.00</b>	<b>2,37,17,408.00</b>	<b>78,03,83,547.00</b>	-	-	-	<b>78,03,83,547.00</b>	<b>75,66,66,139.00</b>

Sl. No	Intangible Assets	Rate of Depreciation (%)	Gross Block			Depreciation for the Year			Net Block	
			O.B. 01.04.2019	Additions	Closing Balance	Depreciation OB	Depreciation for the Year	Total Depreciation	As on 31.03.2020	As on 31.03.2019
19	Computer Software	40%	-	-	-	-	-	-	-	-
20	E-Journals	40% <td>2,21,46,843.00</td> <td>1,43,16,479.00</td> <td>3,64,63,322.00</td> <td>1,90,84,905.60</td> <td>77,79,725.40</td> <td>2,68,64,631.00</td> <td>95,98,691.00</td> <td>30,61,937.40</td>	2,21,46,843.00	1,43,16,479.00	3,64,63,322.00	1,90,84,905.60	77,79,725.40	2,68,64,631.00	95,98,691.00	30,61,937.40
21	Patents	9 Years	-	-	-	-	-	-	-	-
	<b>Total (C)</b>		<b>2,21,46,843.00</b>	<b>1,43,16,479.00</b>	<b>3,64,63,322.00</b>	<b>1,90,84,905.60</b>	<b>77,79,725.40</b>	<b>2,68,64,631.00</b>	<b>95,98,691.00</b>	<b>30,61,937.40</b>
	<b>Grand Total (A+B+C)</b>		<b>80,29,81,948.00</b>	<b>5,96,11,539.00</b>	<b>86,25,92,987.00</b>	<b>2,37,23,804.92</b>	<b>1,30,03,378.06</b>	<b>3,67,27,182.98</b>	<b>82,58,65,806.01</b>	<b>77,92,57,243.07</b>





SCHEDULE - 3B NON PLAN FIXED ASSETS

S.No	Assets Heads	Rate of Depreciation (%)	Gross Block			Depreciation for the Year			Net Block	
			O.B. 01.04.2019	Additions	Closing Balance	Depreciation CB	Depreciation for the Year	Total Depreciation	As on 31.03.2020	As on 31.03.2019
1	Land	3	4	5	6=4+5	7	8	9=7+8	10=11+5-8	11
1	Land	0%	-	-	-	-	-	-	-	-
2	Site Development	0%	-	-	-	-	-	-	-	-
3	Buildings	2%	-	-	-	-	-	-	-	-
4	Roads & Bridges	2%	-	-	-	-	-	-	-	-
5	Tube wells & Water Supply	2%	1,17,495.00	-	1,17,495.00	9,309.60	2,349.94	11,749.50	1,05,745.50	1,08,095.40
6	Sewage & Drainage	2%	-	-	-	-	-	-	-	-
7	Electrical Installation and Equipment	5%	-	-	-	-	-	-	-	-
8	Plant & Machinery	5%	65,737.00	-	65,737.00	12,319.90	3,206.85	15,606.75	50,130.25	53,417.10
9	Scientific & Laboratory Equipment	8%	-	-	-	-	-	-	-	-
10	Office Equipment	7.5%	1,40,600.00	-	1,40,600.00	29,559.75	10,545.00	40,095.75	1,00,504.25	1,11,049.25
11	Audio Visual Equipment	7.5%	2,68,790.00	-	2,68,790.00	80,637.00	20,159.25	1,00,796.25	1,67,993.75	1,88,153.00
12	Computers & Peripherals	20%	27,11,641.00	3,72,240.00	30,83,881.00	13,01,031.60	6,16,776.20	19,17,807.80	11,66,073.20	14,10,609.40
13	Furniture, Fixtures & Fittings	7.5%	88,171.00	-	88,171.00	23,702.85	6,612.83	30,315.68	57,855.31	64,468.14
14	Vehicles	10%	-	-	-	-	-	-	-	-
15	Lib. Books & Scientific Journals	10%	36,226.00	22,294.00	58,520.00	9,978.10	5,852.00	15,830.10	42,689.90	26,247.90
16	Scientific & Laboratory Equipment	8%	49,560.00	-	49,560.00	7,929.60	3,964.80	11,894.40	37,665.60	41,630.40
17	Small Value Assets	100%	-	-	-	-	-	-	-	-
<b>Total (A)</b>			<b>34,78,220.00</b>	<b>3,94,534.00</b>	<b>38,72,754.00</b>	<b>14,74,549.40</b>	<b>6,69,546.83</b>	<b>21,44,096.23</b>	<b>17,28,657.76</b>	<b>20,03,670.59</b>

18	Capital work in Progress	(B)	-	-	-	-	-	-	-	-
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S.No	Intangible Assets	Rate of Depreciation	Gross Block			Depreciation for the Year			Net Block	
			O.B. 01.04.2019	Additions	Closing Balance	Depreciation OB	Depreciation for the Year	Total Depreciation	As on 31.03.2020	As on 31.03.2019
19	Computer Software	40	-	-	-	-	-	-	-	-
20	E-Journals	40	-	-	-	-	-	-	-	-
21	Patents	9 Years	-	-	-	-	-	-	-	-
<b>Total (C)</b>			<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Grand Total (A+B+C)</b>			<b>34,78,220.00</b>	<b>3,94,534.00</b>	<b>38,72,754.00</b>	<b>14,74,549.40</b>	<b>6,69,546.83</b>	<b>21,44,096.23</b>	<b>17,28,657.76</b>	<b>20,03,670.59</b>





## SCHEDULE - 4 - CURRENT ASSETS

PARTICULAR		Current Year	Previous Year
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 (Non-Plan)	3,55,02,216.62	1,60,90,009.52
ii	Canara Bank SB A/c No. 2730101007913 (Plan)	-	2,31,429.60
iii	Canara Bank SB A/c No. 273010109959	1,127.00	1,127.00
iv	SBI Hatia SB A/c (O.B.)	3,344.10	3,344.10
v	Canara Bank SB A/c No. 2730101011451	6,94,28,890.02	48,08,771.00
vi	Canara Bank SB A/c No. 2730101011452	14,52,91,757.50	12,02,17,163.50
vii	Canara Bank SB A/c No. 2730101011453	7,84,32,890.00	4,45,49,635.00
viii	Canara Bank SB A/c No. 2730101012429 (SERB Project II)	28,46,632.00	-
ix	Canara Bank SB A/c No. 2730101011923 (SERB Project I)	1,75,472.00	-
x	Canara Bank Escrow A/c -2730101012032	1,54,09,982.00	-
3	Cash		
a	Cash in hand	48,363.00	-
4	Investment		
	(schedule-4(a))		
5	Fund in Transit		9,00,00,000.00
	TOTAL	34,77,54,826.92	27,64,15,632.40







**SCHEDULE - 5 - LOANS, ADVANCES & DEPOSITS**

	Current Year	Previous Years
<b>1 Advances to Employees: (Non Interest Bearing)</b>		
a Expenses Advance	10,26,063.00	7,04,699.00
b Festival Advance	900.00	9,000.00
c Leave Travel Concession Advance	65,222.00	2,24,386.00
d Medical Advance	2,69,671.00	2,87,219.00
e Travelling Advance	98,970.00	34,965.00
f Rolling Advance	4,62,092.00	3,88,085.00
g CPDA Advance	2,94,000.00	-
<b>2 Advances to Employees: (Interest Bearing)</b>		
a House Building Advances	-	13,000.00
b Computer Advance	2,11,994.00	3,57,594.00
c Car/Motorcycle/Scooter Advance	56,170.00	98,190.00
<b>3 Advances &amp; Other amounts Recoverable</b>		
<b>I Institute Activities</b>		
a NIFT-Golden Jubilee Celebration	20,10,199.33	20,10,199.33
b Contribution to Annual Feast-JIINKS	24,80,000.00	16,00,000.00
c Advance SBI online A/c -36228721268	13,10,662.20	10,62,063.20
d Advance to NIFT Student's Gymkhana	60,000.00	60,000.00
e All India Workshop on Excellence in Manufacturing	-	4,00,000.00
f SBI online A/c -38979437865 (Advance)	2,42,423.00	-
<b>II Advance to Suppliers</b>		
a M/s Ed.CIL (India) Ltd. (for Campus Wide Networking)	13,53,195.00	13,53,195.00
b M/s National Informatic Centre	3,29,07,670.00	3,29,07,670.00
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)	10,12,61,123.00	1,71,12,134.00
f Hotel Peepal Tree	-	9,070.00
<b>4 Prepaid Expense</b>		
a Pre Paid Internet Expenses	11,80,000.00	11,80,000.00





Contd..

	Current Year	Previous Years
<b>5</b>		
<b>Deposit with suppliers</b>		
<b>I Telephone</b>		
a Security Deposit With P&T Department	29,550.00	29,550.00
<b>II Electricity</b>		
a Security Deposit With Jharkhand Electricity Board	12,15,000.00	12,15,000.00
<b>III Medical</b>		
a M/s. Mecon Ltd.	5,00,000.00	5,00,000.00
<b>IV Academic</b>		
a AICTE	1,88,047.00	1,88,047.00
b Security Deposit With Ranchi University	2,50,000.00	2,50,000.00
<b>V Others</b>		
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
<b>Income Accrued:</b>		
a On Advance to Employees	14,143.00	14,143.00
<b>7 Claims Receivable</b>		
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 MOS Chair Professor Receivable	-	25,000.00
	<b>15,56,31,070.06</b>	<b>7,01,77,185.06</b>





**NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY**  
HATIA, RANCHI-834003

**INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON 31ST MARCH, 2020**

I N C O M E		Schedule	Current Year	Previous Year
ACADEMIC RECEIPTS		6	3,36,90,522.00	3,66,46,162.00
GRANTS		7	32,48,58,018.00	31,75,95,000.00
INCOME FROM INVESTMENT		8	-	7,00,975.50
INTREST EARNED		9	11,06,160.00	25,57,387.00
OTHER INCOME		10	31,41,655.02	19,17,067.00
	TOTAL(A)		36,27,96,355.02	35,94,16,591.50
E X P E N D I T U R E		Schedule	Current Year	Previous Year
STAFF PAYMENT & BENEFITS (Establishment Expenses)		11	24,71,28,164.00	19,71,75,111.00
ACADEMIC EXPENSES		12	3,56,15,739.00	4,56,05,315.00
ADMINISTRATIVE AND GENERAL EXPENSES		13	3,11,11,172.00	3,05,08,464.00
TRANSPORTATION EXPENSES		14	9,50,756.00	9,13,312.00
REPAIR & MAINTENANCE EXPENSES		15	1,00,52,187.00	65,03,567.00
DEPRECIATION		3	2,38,18,360.31	2,77,84,035.23
	TOTAL(B)		34,86,76,378.31	30,84,89,804.23
Balance Being Surplus/(Deficit) Carried to Capital Fund (A-B)			1,41,19,976.71	5,09,26,787.27

AS INTERNAL AUDITOR

For: M/s Kumar Vikash & CO (CHARTERED ACCOUNTANTS)

CA. Vikash Kumar (Proprietor)  
MEMBERSHIP NO.: 423928



*Kumar Vikash*  
Deputy Registrar

कुलसचिव/Dy. Registrar  
निफ्ट, रांची/NIFFT, Ranchi

*Kumar Vikash*  
Registrar  
REGISTRAR  
NIFFT, RANCHI

*Kumar Vikash*  
Director

निदेशक  
DIRECTOR  
निफ्ट, हटिया, रांची-3  
NIFFT, HATIA, RANCHI-3



## SCHEDULE - 6 - ACADEMIC RECEIPTS

PARTICULAR		Current Year	Previous year
FEES FROM STUDENTS			
<b>1</b>	<b>Academic</b>		
a	Admission Fee	55,400.00	66,100.00
b	Application Fee	1,58,950.00	2,49,525.00
c	Computer Fee	11,13,500.00	12,65,500.00
d	Grade Card Fee	44,250.00	48,750.00
e	Library Access Fee	11,84,500.00	12,23,500.00
f	Registration/Enrolment Fee	2,56,400.00	2,89,800.00
g	Seat Rent	22,44,600.00	25,07,400.00
h	Tuition Fees	2,11,95,800.00	2,25,10,050.00
	<b>Total (A)</b>	<b>2,62,53,400.00</b>	<b>2,81,60,625.00</b>
<b>2</b>	<b>Examinations</b>		
a	Examination Fee-Institute	5,79,450.00	6,34,500.00
b	Examination Fee-Ranchi University	4,18,900.00	22,16,100.00
3	Examination Fees-Jharkhand Technical University	12,64,450.00	-
	<b>Total (B)</b>	<b>22,62,800.00</b>	<b>28,50,600.00</b>
<b>3</b>	<b>Other Fees</b>		
a	Fines & Penalties	73,672.00	1,06,687.00
b	Gymkhana Fee	3,34,950.00	3,70,350.00
c	Hostel Fee	54,800.00	61,400.00
d	Hostel Maintenance Fee (Establishment Charges)	37,44,000.00	40,08,000.00
e	Identity Card Fee (Re-issued)	50.00	350.00
f	Internet Access Fee	3,44,850.00	3,84,150.00
g	Medical Fee	6,22,000.00	6,94,500.00
h	Seminar/Thesis Fees	-	9,500.00
	<b>Total (C)</b>	<b>51,74,322.00</b>	<b>56,34,937.00</b>
	<b>GRAND TOTAL (A+B+C)</b>	<b>3,36,90,522.00</b>	<b>3,66,46,162.00</b>





SCHEDULE - 7 - GRANTS

PARTICULAR	Govt. of India(MHRD)		Current Year Total	Previous Year Total
	Plan*	Non Plan		
Grant Refundable to MHRD for 2018-19 reversed	9,46,50,000.00	15,60,29,000.00	15,60,29,000.00	-
Add: Receipts during the Year	10,00,00,000.00	34,96,00,000.00	34,96,00,000.00	31,75,95,000.00
Less: Amount Refundable to MHRD	6,70,06,000.00	18,07,70,982.00	18,07,70,982.00	-
			<b>32,48,58,018.00</b>	<b>31,75,95,000.00</b>

\* For information purpose only no part of Income & Expenditure

SCHEDULE - 8 - INCOME FROM INVESTMENTS

PARTICULAR	Current Year	Previous Year
1. Interest on Term Deposit with Nationalized Bank	-	7,00,975.50
2. Interest accrued on Term Deposit but not received	-	-
<b>Note-10</b>	<b>-</b>	<b>7,00,975.50</b>

SCHEDULE - 9 - INTEREST EARNED

PARTICULAR	Govt. of India(MHRD)		Current Year Total	Previous Year Total
	Plan	Non Plan		
1. Interest on Saving Account with scheduled banks	30,87,996.00	66,26,934.00	97,14,930.00	24,71,593.00
Less: Interest earned on Govt.fund transferable to MHRD	30,80,365.00	55,86,000.00	86,66,365.00	-
2. Interest Earned as income	7,631.00	10,40,934.00	10,48,565.00	24,71,593.00
3. Interest on Loans of Employees		57,595.00	57,595.00	85,794.00
<b>Total (2+3)</b>			<b>11,06,160.00</b>	<b>25,57,987.00</b>



**SCHEDULE -10- OTHER INCOME**

PARTICULAR	Current Year	Previous Year
<b>A. Income from Land &amp; Buildings</b>		
1. Electricity Charges Recovered	2,79,122.00	2,47,177.00
2. Rent Recovered	2,10,500.00	2,34,675.00
3. License Fee Recovered	4,19,555.00	3,33,770.00
4. Water Charges Recovered	1,301.00	924.00
<b>Total (A)</b>	<b>9,10,478.00</b>	<b>8,16,546.00</b>
<b>B. Others</b>		
<b>1. Others Incomes</b>		
a) Bus Charges Recovery	83,350.00	69,550.00
b) Certificate Verification & Transcript Fee	37,400.00	49,000.00
c) Photocopy Charges	180.00	276.00
2. Income From Consultancy	3,469.00	44,432.00
3. Misc. Receipts	1,838.02	41,904.00
4. Recruitment Fees	3,34,500.00	6,19,275.00
5. RTI Fees	404.00	665.00
6. Rechecking Charges	-	3,200.00
7. Income From Scrape Sale	-	2,72,219.00
8. Triable Area Allowance Recovery	17,17,711.00	-
9. Overhead from Project	52,325.00	-
<b>Total (B)</b>	<b>22,31,177.02</b>	<b>11,00,521.00</b>
<b>Grand Total (A+B)</b>	<b>31,41,655.02</b>	<b>19,17,067.00</b>





**SCHEDULE - 11 - STAFF PAYMENTS & BENEFITS ( ESTABLISHMENT EXPENSES )**

PARTICULAR	Current Year			Previous Year		
	Plan	Non Plan	Total	Plan	Non Plan	Total
<b>1. Salaries and Wages</b>						
a) Salaries and Wages (Teaching & Non Teaching)	-	12,36,87,258.00	12,36,87,258.00	-	9,67,31,406.00	9,67,31,406.00
b) Salary Arrear	-	1,17,38,402.00	1,17,38,402.00	-	48,95,177.00	48,95,177.00
2. Allowance and Bonus	-	1,93,424.00	1,93,424.00	-	5,27,016.00	5,27,016.00
<b>3. Retirement and Terminal Benefits</b>						
a) Composite Transfer/TA Grant	-	2,46,597.00	2,46,597.00	-	2,84,536.00	2,84,536.00
b) Encashment of Leave	-	12,57,132.00	12,57,132.00	-	50,51,702.00	50,51,702.00
c) Leave Salary & Pension Contribution	-	11,81,077.00	11,81,077.00	-	1,15,415.00	1,15,415.00
d) Other Retirement Benefit	-	1,74,000.00	1,74,000.00	-	-	-
e) Payment of Gratuity	-	5,15,532.00	5,15,532.00	-	25,72,468.00	25,72,468.00
f) Pension	-	4,98,57,743.00	4,98,57,743.00	-	4,26,09,896.00	4,26,09,896.00
g) Commutation	-	7,37,460.00	7,37,460.00	-	44,30,884.00	44,30,884.00
h) Arrear to Pensioner	-	1,89,09,483.00	1,89,09,483.00	-	71,33,566.00	71,33,566.00
4. Leave Travel Concession facilities	-	15,84,347.00	15,84,347.00	-	18,11,216.00	18,11,216.00
5. Medical Facility	-	23,94,626.00	23,94,626.00	-	12,69,896.00	12,69,896.00
6. Children Education Allowance	-	29,82,881.00	29,82,881.00	-	8,31,912.00	8,31,912.00
7. Honorarium	-	1,24,165.00	1,24,165.00	-	1,53,921.00	1,53,921.00
<b>8. Payment to Adhoc Staff</b>						
a) Consultants & Contractual Staff	-	8,96,395.00	8,96,395.00	-	13,65,879.00	13,65,879.00
b) Salary-System Administrator	-	5,63,036.00	5,63,036.00	-	3,29,491.00	3,29,491.00
c) Salary-Lab Staff's	-	6,67,104.00	6,67,104.00	-	4,32,822.00	4,32,822.00
d) Indian Allied Security-Manpower Supply	-	1,89,85,646.00	1,89,85,646.00	-	1,72,09,794.00	1,72,09,794.00
e) Bombay Intelligence Security-Sweeping & Cleaning	-	98,35,769.00	98,35,769.00	-	91,29,947.00	91,29,947.00
f) Salary-Physical Trainer	-	15,660.00	15,660.00	-	70,000.00	70,000.00
g) Accountant	-	4,24,483.00	4,24,483.00	-	2,18,167.00	2,18,167.00
h) Salary-cultural and health activity instructor's	-	50,944.00	50,944.00	-	-	-
i) Salary-Security Supervisor	-	1,05,000.00	1,05,000.00	-	-	-
<b>TOTAL</b>	-	<b>24,71,28,164.00</b>	<b>24,71,28,164.00</b>	-	<b>19,71,75,111.00</b>	<b>19,71,75,111.00</b>





## SCHEDULE - 12 - ACADEMIC EXPENSES

PARTICULAR	Current Year			Previous Year		
	Plan	Non Plan	Total	Plan	Non Plan	Total
1. Examination Expenses	-	21,07,200.00	21,07,200.00	-	18,84,000.00	18,84,000.00
2. Payment to Visiting Faculty	-	12,18,291.00	12,18,291.00	-	20,35,263.00	20,35,263.00
<b>3. Stipend /Merit Cum Means Scholarship</b>	-	-	-	-	-	-
a) Merit-Cum-Means Scholarship	-	13,26,000.00	13,26,000.00	-	13,60,000.00	13,60,000.00
b) Scholarship to M.Tech Students	-	1,98,43,578.00	1,98,43,578.00	-	2,96,60,521.00	2,96,60,521.00
c) Stipend to Advanced Diploma Course Students	-	39,66,750.00	39,66,750.00	-	39,02,404.00	39,02,404.00
d) Stipend to PhD Scholars	-	33,47,250.00	33,47,250.00	-	42,21,838.00	42,21,838.00
<b>4. Student Welfare Expenses</b>	-	-	-	-	-	-
a) NIFFT Clinic Expenses	-	77,637.00	77,637.00	-	1,44,376.00	1,44,376.00
b) Student Medical Reimbursement	-	1,33,252.00	1,33,252.00	-	-	-
c) Students Recreation Activities	-	2,73,077.00	2,73,077.00	-	4,24,832.00	4,24,832.00
d) Medical Insurance of Students	-	4,13,000.00	4,13,000.00	-	5,12,217.00	5,12,217.00
5. Laboratory & Workshop Expenses	-	21,63,063.00	21,63,063.00	-	10,85,590.00	10,85,590.00
6. Participation in Seminar & Conferences	-	5,86,889.00	5,86,889.00	-	2,22,948.00	2,22,948.00
7. Seminar/Workshop/Conference Expenses	-	79,397.00	79,397.00	-	1,32,326.00	1,32,326.00
8. Other Academic Expenses	-	80,355.00	80,355.00	-	19,000.00	19,000.00
<b>TOTAL</b>	-	<b>3,56,15,739.00</b>	<b>3,56,15,739.00</b>	-	<b>4,56,05,315.00</b>	<b>4,56,05,315.00</b>







## SCHEDULE - 13 - ADMINISTRATIVE AND GENERAL EXPENSES

PARTICULAR	Current Year			Previous Year		
	Plan	Non Plan	Total	Plan	Non Plan	Total
	A) Infrastructure					
a) Electricity & Power						
a) D.G. Set Fuel Expenses	-	7,40,430.00	7,40,430.00	-	10,36,811.00	10,36,811.00
b) Jharkhand Bijli Vitran Nigam Ltd.	-	87,69,823.00	87,69,823.00	-	84,80,071.00	84,80,071.00
b) Rent, Rates and Taxes						
a) Lease Rent to M/s HEC Ltd.	-	51,804.00	51,804.00	-	51,804.00	51,804.00
b) Municipal Tax	-	28,12,627.00	28,12,627.00	-	38,17,277.00	38,17,277.00
B) Communication						
a) Telephone, Fax and Internet Charges						
a) M/s BSNL	-	3,67,843.00	3,67,843.00	-	3,61,941.00	3,61,941.00
b) Other Mobile & Landline	-	1,734.00	1,734.00	-	5,418.00	5,418.00
c) BSNL Internet Leased Line	-	11,80,000.00	11,80,000.00	-	11,80,000.00	11,80,000.00
d) Internet Charges-NICSI/Ernet	-	3,66,294.00	3,66,294.00	-	1,57,825.00	1,57,825.00
b) Postage & Stationery Expenses	-	64,783.00	64,783.00	-	34,944.00	34,944.00
C) Others Expenditure						
a) Advertisement & Publicity						
a) M/s Jagran Prakashan Ltd.	-	60,743.00	60,743.00	-	76,972.00	76,972.00
b) M/s THG Publishing Pvt.Ltd.	-	-	-	-	2,92,068.00	2,92,068.00
c) M/s Employment News	-	1,57,398.00	1,57,398.00	-	94,466.00	94,466.00
d) M/s Hindustan Media Ventures Ltd.	-	63,504.00	63,504.00	-	35,206.00	35,206.00
e) M/s HT Media Ltd.	-	-	-	-	25,704.00	25,704.00
f) M/s Neutral Publishing House Ltd.	-	-	-	-	1,59,036.00	1,59,036.00
g) M/s Sandeep Consultant	-	-	-	-	1,638.00	1,638.00
h) The Samagra Jagran Prakashan Ltd.	-	-	-	-	1,000.00	1,000.00
i) M/s. ABP Pvt. Ltd.	-	66,825.00	66,825.00	-	-	-
h) Ridge Advertisement Marketing Consultant	-	8,91,136.00	8,91,136.00	-	-	-

Contd...





PARTICULAR	Current Year			Previous Year		
	Plan	Non Plan	Total	Plan	Non Plan	Total
	b) Hospitality Expenses	-	26,26,873.00	26,26,873.00	-	16,89,414.00
c) Internal & CAG Auditor Remuneration	-	3,02,000.00	3,02,000.00	-	4,37,371.00	4,37,371.00
d) Magazine/Journals/News Paper/Subscriptions	-	32,970.00	32,970.00	-	10,698.00	10,698.00
e) Printing & Stationary (Consumption)	-	7,36,976.00	7,36,976.00	-	9,31,052.00	9,31,052.00
f) Rajbhasha Activities Expenses	-	45,110.00	45,110.00	-	42,319.00	42,319.00
g) Security Expenses						
<i>Jharkhand Home Guards</i>						
h) Sitting Charges for Meetings	-	65,84,190.00	65,84,190.00	-	59,23,125.00	59,23,125.00
i) Travelling & Conveyance	-	3,68,040.00	3,68,040.00	-	6,95,505.00	6,95,505.00
j) Legal Expenses	-	33,71,264.00	33,71,264.00	-	27,14,737.00	27,14,737.00
k) Bank Charges	-	1,37,500.00	1,37,500.00	-	1,54,850.00	1,54,850.00
l) Celebration & other Activities Expenses	-	9,219.00	9,219.00	-	21,441.00	21,441.00
m) Miscellaneous Expenditure	-	5,49,109.00	5,49,109.00	-	20,09,924.00	20,09,924.00
n) SPIC MACAY Expenses	-	7,22,649.00	7,22,649.00	-	65,847.00	65,847.00
<b>TOTAL</b>	<b>-</b>	<b>3,11,11,172.00</b>	<b>3,11,11,172.00</b>	<b>-</b>	<b>3,05,08,464.00</b>	<b>3,05,08,464.00</b>



**SCHEDULE- 14 - TRANSPORTATION EXPENSES**

PARTICULAR	Current Year		Total	Previous Year	
	Plan	Non Plan		Plan	Non Plan
<b>1. Vehicles (Owned by Institutions)</b>					
A) Insurance Expenses	-	1,70,249.00	1,70,249.00	-	1,79,774.00
B) Running Expenses (Fuel)	-	4,26,659.00	4,26,659.00	-	5,51,203.00
C) Vehicles Repairs & Maintenance	-	3,19,644.00	3,19,644.00	-	1,38,043.00
<b>2. Vehicles Hiring Expenses</b>					
	-	34,204.00	34,204.00	-	44,292.00
<b>Total</b>	<b>-</b>	<b>9,50,756.00</b>	<b>9,50,756.00</b>	<b>-</b>	<b>9,13,312.00</b>

**SCHEDULE- 15 - REPAIRS & MAINTENANCE**

PARTICULAR	Current Year		Total	Previous Year	
	Plan	Non Plan		Plan	Non Plan
<b>1. Annual Maintenance Cost</b>					
a) AMC of DG Set	-	80,040.00	80,040.00	-	47,200.00
b) AMC of Photocopier	-	78,470.00	78,470.00	-	86,090.00
c) AMC of Water Purifiers	-	26,850.00	26,850.00	-	33,285.00
<b>2. Building Maintenance</b>					
	-	46,44,662.00	46,44,662.00	-	23,88,145.00
<b>3. Cleaning Material &amp; Services</b>					
	-	4,21,041.00	4,21,041.00	-	4,34,296.00
<b>4. Computer Maintenance</b>					
	-	3,19,189.00	3,19,189.00	-	1,83,859.00
<b>5. Electrical Maintenance</b>					
	-	21,40,777.00	21,40,777.00	-	16,44,235.00
<b>6. Furniture &amp; Fixtures Maintenance</b>					
	-	51,661.00	51,661.00	-	47,729.00
<b>7. Gardening</b>					
	-	97,504.00	97,504.00	-	1,22,775.00
<b>8. Office Equipments Maintenance</b>					
	-	1,89,930.00	1,89,930.00	-	1,07,407.00
<b>9. Repair &amp; Maintenance-Others</b>					
	-	20,02,063.00	20,02,063.00	-	14,08,546.00
<b>Total</b>	<b>-</b>	<b>1,00,52,187.00</b>	<b>1,00,52,187.00</b>	<b>-</b>	<b>65,03,567.00</b>





**NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY**  
**HATIA, RANCHI-834003**  
**RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31.03.2020**

RECEIPTS	Sch. No.	Current Year 2019-20	Previous Year 2018-19	PAYMENTS	Sch. No.	Current Year 2019-20	Previous Year 2018-19
<b>I. Opening Balances</b>				<b>I. Expenses</b>	<b>20</b>		
A) Cash Balances				1. Non Plan Expenses		21,31,20,868.00	16,70,50,068.00
B) Bank Balances				1. Staff Payments & Benefits (Ess. Expenses)		2,72,81,056.00	1,59,83,470.00
In Savings Accounts				2. Academic Expenses		2,13,93,462.00	2,11,48,709.00
SB A/c No. 2730101007913 (Plan)		1,60,96,008.52	1,38,94,177.52	3. Administrative and General Expenses		3,00,980.00	2,48,466.00
SB A/c No. 2730101009559 (IDF)		2,31,429.60	4,35,54,447.60	4. Transportation Expenses		22,41,611.00	31,14,885.00
SB A/c No. 2730101009559 (IDF)		1,227.00	1,088.00	5. Repair & Maintenance			
SBI Hatia (O B)		3,344.10	3,344.10				
Canara Bank SB A/c No. 2730101011451(OH-31)		48,08,771.00	1,000.00	<b>II. Payments Against Sponsored Projects</b>	<b>21 (B)</b>	12,80,051.00	13,60,040.00
Canara Bank SB A/c No. 2730101011452(OH-36)		12,02,17,163.50	1,000.00	<b>III. Payments Against Sponsored Fellowship/Scholarship</b>	<b>21 (A)</b>	20,22,810.00	30,76,000.00
Canara Bank SB A/c No. 2730101011453(OH-35)		4,45,49,635.00	1,000.00				
				<b>IV. Expenditure on Fixed Assets</b>			
<b>II. Grants Received</b>				1. Plan Fixed Assets	<b>22</b>	2,38,70,741.00	1,26,21,476.00
From Government of India (MHRD)				2. Non Plan Fixed Assets	<b>23</b>		31,280.00
1. Plan Grant		10,00,00,000.00	9,00,00,000.00				
2. Non Plan Grant		34,36,00,000.00	27,75,95,000.00	<b>V. Interest on Loan of Employees/Staff</b>	<b>24</b>	17,730.00	
<b>III. Academic Receipts</b>	<b>16</b>			<b>VI. Loans, Advances and Deposits</b>	<b>25</b>	10,89,68,477.00	7,77,57,204.00
1. Academic		2,01,77,250.00	2,11,55,075.00				
2. Examination		31,50,800.00	25,06,400.00	<b>VII. Other Payments</b>	<b>26</b>	8,98,43,763.00	6,21,35,236.00
3. Other Fees		1,26,71,871.00	1,17,66,337.00				
<b>IV. Receipts Against Sponsored Projects</b>	<b>2(b)</b>	55,63,698.00	33,95,075.00	<b>VIII. Closing Balances</b>		48,363.00	
<b>V. Receipt Against Sponsored Fellowship</b>	<b>2(c)</b>	33,10,350.00	43,65,110.00	A) Cash Balances			
				B) Bank Balances			
				In Savings Accounts			
				Canara Bank SB A/c No. 2730101006938 (Non Plan)		3,56,02,216.62	1,60,90,009.52
				Canara Bank SB A/c No. 2730101007913(Plan)			2,31,429.60
				Canara Bank SB A/c No. 2730101009559 (IDF)		1,127.00	1,127.00
				SBI Hatia SB A/c (O B)		3,344.10	3,344.10
				Canara Bank SB A/c No. 2730101011451(OH-31)		6,94,28,890.02	48,08,771.00
				Canara Bank SB A/c No. 2730101011452(OH-36)		14,52,91,757.50	12,02,17,163.50
				Canara Bank SB A/c No. 2730101011453(OH-35)		7,84,32,860.00	4,45,49,635.00
				Canara Bank SB A/c No. 2730101011923(SERB Project I)		1,75,471.00	
				Canara Bank SB A/c No. 2730101012032 (Principal A/c)		1,54,09,982.00	
				Canara Bank SB A/c No. 2730101012429(SERB Project II)		28,46,031.00	
<b>VI. Term Deposits Encashed</b>			5,50,00,000.00				
FD Encashment							





VIII. Other Income						
1. Other Income	17	30,85,261.02	18,72,203.00			
IX. Miscellaneous receipts including Liability	18	5,19,17,810.50	9,69,43,255.00			
X. Deposits & Advances	19	36,68,731.00	40,05,479.00			
XI. Fund in Transit of FY 2018-19		9,00,00,000.00				
		<b>83,79,82,230.24</b>	<b>57,04,18,313.72</b>		<b>88,79,82,230.24</b>	<b>57,04,18,313.72</b>

AS INTERNAL AUDITOR  
For M/s Kumar Kash & Co (REGISTERED ACCOUNTANTS)

CA. VIKAS KUMAR  
MEMBER ICAI  
NO. 139238



*(Signature)*  
Deputy Registrar

कुलसचिव/Dy. Registrar  
निफ्ट, राँची/NIFFT, Ranchi

*(Signature)*  
Registrar

REGISTRAR  
NIFFT, RANCHI

*(Signature)*  
निदेशक  
DIRECTOR

निफ्ट, हटिया, राँची-3  
NIFFT, HATIA, RANCHI-3



## SCHEDULE- 16 - ACADEMIC RECEIPTS

PARTICULARS	AMOUNT
<b>1. Academic</b>	
a. Admission Fee	22,800.00
b. Application Fee	1,58,950.00
c. Computer Fee	8,89,500.00
d. Grade Card Fee	32,850.00
e. Library Access Fee	10,03,500.00
f. Registration/Enrolment Fee	2,11,600.00
g. Seat Rent	18,16,200.00
h. Tuition Fees	1,60,37,850.00
<b>(1) Sub Total</b>	<b>2,01,73,250.00</b>
<b>2. Examination Fees</b>	
a. Examination Fees-Institute	4,67,450.00
b. Examination Fees-Ranchi University	4,18,900.00
c. Examination Fees(Jharkhand Technical University)	12,64,450.00
<b>(2) Sub Total</b>	<b>21,50,800.00</b>
<b>3. Other Fees</b>	
a. Fine & Penalties	73,672.00
b. Gymkhana Fee	2,63,550.00
c. Hostel Fees	22,200.00
d. Hostel Maintenance Fee	31,59,000.00
e. Identity card Fee	50.00
f. Internet Access Fee	2,77,650.00
g. Medical Fee	5,10,000.00
<b>4. Admission Fees from CSAB 2019</b>	<b>67,61,000.00</b>
<b>5. CCMT 2019</b>	<b>16,06,750.00</b>
<b>(3) Sub Total</b>	<b>1,26,73,872.00</b>



**SCHEDULE- 17 - OTHER INCOME**

PARTICULARS	AMOUNT
<b>1. Other</b>	
a. Bus Charges Recovery	83,350.00
b. Certificate/Transcript verification fees	37,400.00
c. Misc. Receipts (sale of Tender Form etc.)	1,838.02
d. RTI Fees	404.00
e. Photocopy Charges	180.00
f. Recruitment Fees	3,34,500.00
g. Triable Area Allowance Recovery	17,17,711.00
<b>2. Income from Land &amp; Building</b>	
a. Electricity charges Recovered	2,79,122.00
b. Rent Recovered	2,10,500.00
c. Licence Fees	4,19,555.00
d. Water Charges Recovery	1,301.00
<b>TOTAL</b>	<b>30,85,861.02</b>



18. MISCELLANEOUS RECEIPT INCLUDING LIABILITIES	AMOUNT
PARTICULARS	
1. Deposit From Staff	
Salary held of Ponappa K	69,219.00
2. Deposit From Student	
Caution Money	5,49,500.00
3. Statutory Liabilities	
a. GPF Deduction from Salary	1,84,87,669.00
b. GIS Premium	28,600.00
c. LIC Premium	11,16,777.00
d. New Pension Scheme (Employees Contribution)	36,28,578.00
e. New Pension Scheme (Employers Contribution)	50,03,931.00
f. Professional Tax on Salary	1,60,801.00
g. TDS Payable U/sec. 192A	2,06,20,817.00
h. TDS Payable U/sec. 194C	74,568.00
i. TDS Payable U/sec. 194J	55,765.00
J. CPF Deduction from Salary	2,67,103.00
4. Other Current Liability	
a. Expense Payable	5,10,018.00
b. Amount Payable to Manoj Kumar	45,000.00
c. Amount Payable to P. Talukdar	2,600.00
d. Amount transfer from IIPC Account-2730101004765	11,23,915.50
e. Honorarium payable for CSAB	31,200.00
f. Indian Statistical Institute (Examination 2019)	33,099.00
g. Kumar Aman-Mess Fees	27,000.00
h. NIFFT Alumni Association	51,650.00
i. Vishal Yadav-Mess Fees	30,000.00
<b>TOTAL</b>	<b>5,19,17,810.50</b>







**SCHEDULE- 19 - DEPOSIT & ADVANCES**

PARTICULARS	AMOUNT
<b>1. Advance to Employees (Interest Bearing)</b>	
a. Car/Motorcycle/Scooter Advance	45,020.00
b. Computer Advance	1,47,600.00
c. House Building Advance	14,000.00
<b>2. Advance to Employees (Non Interest Bearing)</b>	
a. Expenses Advance	20,01,949.00
b. Festival Advance	8,100.00
c. Leave Travel Concession Advance	13,56,023.00
d. Medical Advance	1,62,815.00
e. Rolling Advance	33,734.00
f. Travelling Advance	94,489.00
<b>3. Claim Receivable</b>	
a. MOS Chair Professor Receivable	25,000.00
<b>TOTAL</b>	<b>38,88,731.00</b>





SCHEDULE - 20 - NON-PLAN EXPENSES		AMOUNT
PARTICULARS		
<b>1. Academic Expenses</b>		
a. Examination Expenses		21,07,200.00
b. Payment to Visiting Faculty		2,06,676.00
c. Stipend/Merit cum means Scholarship		2,39,35,378.00
d. Student Welfare Expenses		6,04,807.00
e. Laboratory & workshop Expenses		3,72,880.00
f. Participation in Seminar & Conferences Expenses		4,503.00
g. Seminar/Workshop/Conference Expenses		49,613.00
<b>(1) Sub Total</b>		<b>2,72,81,056.00</b>
<b>2. Administrative General Expenses</b>		
a. Communication		6,98,788.00
b. Infrastructure		95,68,823.00
c. Others Expenditure		1,11,25,851.00
		<b>2,13,93,462.00</b>
<b>3. Repair &amp; Maintenance</b>		
a. Annual Maintenance Cost		80,040.00
b. Building Maintenance		9,93,503.00
c. Computer Maintenance		75,817.00
d. Cleaning Material & Services		24,880.00
e. Electrical Maintenance		7,13,719.00
f. Furniture & Fixture Maintenance		4,030.00
g. Gardening		24,910.00
h. Repair & Maintenance-Printer		59,248.00
i. Repair & Maintenance-others		2,65,471.00
<b>(3) Sub Total</b>		<b>22,41,618.00</b>
<b>4. Staff Payments &amp; Benefits (Est. Expenses)</b>		
a. Allowances & Bonus		1,93,424.00
b. Children Education Allowance		13,62,881.00
c. Honorarium		1,24,165.00
d. Leave Travel Concession Facilities		3,72,590.00
e. Medical Facility		12,13,317.00
f. Payment to Adhoc Staff		16,18,419.00
g. Retirement & Terminal Benefits		7,28,79,024.00
h. Salaries & Wages		13,53,57,046.00
<b>(4) Sub Total</b>		<b>21,31,20,868.00</b>
<b>5. Transportation Expenses</b>		
a. Vehicle Hiring Expenses		9,249.00
b. Vehicles (Owned by Institution)		1,70,249.00
c. Vehicles Repair & Maintenance		1,21,482.00
<b>(5) Sub Total</b>		<b>3,00,980.00</b>
<b>TOTAL</b>		<b>26,43,37,984.00</b>



**SCHEDULE- 21 - PAYMENT AGAINST SPONSORED PROJECT AND FELLOWSHIP/SCHOLARSHIP**

PARTICULARS	AMOUNT
<b>A.RECEIPT AGAINST SPONSORED FELLOWSHIP/SCHOLARSHIP</b>	
i) Govt. of India SC/ST Scholarship	13,76,360.00
ii) S N Sinha Memorial Scholarship	5,000.00
iii) State Scholarship for Students	10,41,450.00
<b>21 (A) TOTAL</b>	<b>24,22,810.00</b>
<b>B.RECEIPT AGAINST SPONSORED PROJECT</b>	
i) Buriapur Surgical Cluster, MSME (West Bengal)	4,12,815.00
ii) Project-Science & Engineering Research Board(New 1)	76,663.00
iii) Project-Science & Engineering Research Board(New 2)	7,69,387.00
iv) Unnat Bharat Abhiyan	21,186.00
<b>21 (B) TOTAL</b>	<b>12,80,051.00</b>

**SCHEDULE- 22 - PLAN FIXED ASSETS**

PARTICULARS	AMOUNT
Capital Work in Progress	1,07,00,000.00
Computer & Peripherals	86,80,368.00
Furniture, Fixture & Fittings	3,02,760.00
Library Books & Scientific Journals	82,281.00
Office Equipment	2,06,500.00
Plant & Machinery	15,83,528.00
Scientific Laboratory Equipment	23,15,304.00
<b>TOTAL</b>	<b>2,38,70,741.00</b>





**SCHEDULE- 23 - NON PLAN FIXED ASSETS**

PARTICULARS	AMOUNT
TOTAL	-

**SCHEDULE- 24 - Interest on Loan of Employees**

PARTICULARS	AMOUNT
Interest on Loans of Employees/staff (Extra Deduct from Salary)	17,730.00
TOTAL	17,730.00



**SCHEDULE- 25 - LOAN, ADVANCES & DEPOSITS**

PARTICULARS	AMOUNT
<b>1. Advance &amp; Other Amount Receivable in cash/kind</b>	
a. Advance to Suppliers	7,56,03,516.00
b. On Capital Account	2,39,40,968.00
<b>2. Advance to Employees ( Non Interest Bearing)</b>	
a. Expenses Advance	42,95,254.00
b. Leave Travel Concession Advance	24,08,616.00
c. Medical Advance	1,85,000.00
d. Rolling Advance	7,55,123.00
e. Travelling Advance	2,89,000.00
f. CPDA Advance	3,09,000.00
<b>3. Prepaid Expense</b>	
a. Prepaid Internet Expenses	11,80,000.00
<b>TOTAL</b>	<b>10,89,68,477.00</b>

**SCHEDULE- 26 - OTHER PAYMENT**

PARTICULARS	AMOUNT
<b>1. Deposit From Students</b>	
a. Caution Money	18,93,750.00
<b>2. Other Current Liabilities</b>	
a. Expenses Payable	5,66,52,623.00
b. Amount Payable to P. Talukdar	2,600.00
c. Indian Statistical Institute (Examination 2019)	29,630.00
d. Kumar Aman-Mess Fees	13,500.00
e. Total Library Solution	63,19,064.00
f. NIFFT Alumni Association	200.00
g. Vishal Yadav-Mess Fees	30,000.00
<b>3. Statutory Liabilities</b>	
a. GPF Deduction from Salary	1,53,93,049.00
b. GIS Premium	23,800.00
c. LIC Premium	11,16,775.00
d. New Pension Scheme(Employees Contribution)	35,09,933.00
e. New Pension Scheme(Employers Contribution)	48,21,839.00
f. Extra Deduction of TDS under Section 92A, paid to Employees	37,000.00
<b>TOTAL</b>	<b>8,98,43,763.00</b>



NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY  
 HATIA, RANCHI-834003  
 BANK RECONCILIATION STATEMENT AS ON 31.03.2020  
 CANARA BANK SB A/C NO. 2730101006939 (NON PLAN A/C)

1) CANARA BANK SB A/C NO. 2730101006939 (NON PLAN A/C)		Amount
Balance as per Ledger as on 31.03.2020		3,56,02,216.62
Add: Amount credited in Bank but not entered in Cash Book as on 31.03.2020 (Annexure-I)		10,45,662.20
Less: Cheques deposited but not cleared as on 31.03.2020 (Annexure-II)		1,55,610.00
Balance as per Ledger as on 31.03.2020 (After Calculation)		3,64,92,268.82
Balance as per Bank Statement as on 31.03.2020		3,64,92,268.82
Difference		
2) CANARA BANK SB A/C NO. 2730101012032 (Loan Principal Payment Account)		Amount
Balance as per Ledger as on 31.03.2020		1,54,09,982.00
Balance as per Ledger as on 31.03.2020 (After BRS)		1,54,09,982.00
Balance as per Bank Statement as on 31.03.2020		1,54,09,982.00
Difference		
3) CANARA BANK SB A/C NO. 2730101011451		Amount
Balance as per Ledger as on 31.03.2020		6,94,28,890.02
Add: Amount credited in Bank but not entered in Cash Book		1,73,665.00
Less: Cheques deposited but not cleared in Cash Book		50,315.00
Balance as per Ledger as on 31.03.2020 (After Calculation)		6,95,52,240.02
Balance as per Bank Statement as on 31.03.2020		6,95,52,240.02
Difference		
4) CANARA BANK SB A/C NO. 2730101011453		Amount
Balance as per Ledger as on 31.03.2020		14,52,91,757.50
Add: Amount credited in Bank but not entered in Cash Book		78,800.00
Less: Cheques deposited but not cleared as on 31.03.2020		5,48,283.00
Balance as per Ledger as on 31.03.2020 (After Calculation)		14,48,22,274.50
Balance as per Bank Statement as on 31.03.2020		14,48,22,274.50
Difference		
5) CANARA BANK SB A/C NO. 2730101011452		Amount
Balance as per Ledger as on 31.03.2020		7,84,32,890.00
Add: Amount credited in Bank but not entered in Cash Book		5,39,241.00
Less: Balance as per Ledger as on 31.03.2020 (After Calculation)		7,85,72,131.00
Balance as per Bank Statement as on 31.03.2020		7,85,72,131.00
Difference		
6) CANARA BANK SB A/C NO. 2730101012429 (SERB Project II)		Amount
Balance as per Ledger as on 31.03.2020		28,46,632.00
Balance as per Ledger as on 31.03.2020 (After BRS)		28,46,632.00
Balance as per Bank Statement as on 31.03.2020		28,46,632.00
Difference		
7) CANARA BANK SB A/C NO. 2730101011192 (SERB Project I)		Amount
Balance as per Ledger as on 31.03.2020		1,75,472.00
Less: Amount debited in Cash book but not entered in Bank		979.00
Balance as per Ledger as on 31.03.2020 (After Calculation)		1,74,493.00
Balance as per Bank Statement as on 31.03.2020		1,74,493.00
Difference		



Annexure Forming Part of Bank Reconciliation Statement  
CAMARA BANK SB A/C NO. 2730101006939 (NON PLAN A/c)

ANNEXURE - I: Amount credited in Bank but not entered in Cash Book as on 31.03.2020

Date	Particulars	Chq. No.	Amount
23.09.2019	NEFT-GM GIF-SBIN419266698719		25,000.00
	NATIONAL INSURANCE CO L		
18.11.2019	DISBURSEMENT AC-KKBK193221059272		1,393.00
13.01.2020	Cash Deposit-Bobde Yogesh Datta		26,200.00
22.01.2020	NEFT COLLECTION AC-UTBI820022243404		9,100.00
10.07.2020	NEFT-BIHAR STATE EDU FIN CORP L PATNA L-N041201060349593		25,600.00
10.02.2020	NEFT-BIHAR STATE EDU FIN CORP L PATNA L-N041201060349593		28,350.00
18.02.2020	NEFT-BIHAR STATE EDU FIN CORP L PATNA L-N049201068074587		7,350.00
06.03.2020	NEFT-BIHAR STATE EDU FIN CORP L PATNA L-N065201084832495		81,200.00
13.03.2020	NEFT-SHILPA INSTRUMENTS AND SERVICES-IDIBH20079389426		3,000.00
13.03.2020	NEFT-SPARKONIX INDIA PVT LTD-SBIN320073302357		90,000.00
15.03.2020	NEFT-SPECTRIS TECHNOLOGIES PRIVATE LIMIT-HSBCN20074865047		5,000.00
17.03.2020	NEFT-UNWARD RTGS-000093097412		13,631.00
19.03.2020	NEFT-HIND HIGH VACUUM COMPANY PVT LTD-N07920109604750E		1,000.00
19.03.2020	NEFT-SHILPA INSTRUMENTS AND SERVICES-IDIBH20079389426		2,500.00
19.03.2020	NEFT-SHILPA INSTRUMENTS AND SERVICES-IDIBH20079389426		5,000.00
19.03.2020	NEFT-HW INDIA PVT LTD-BISS DV-CITIN20043728458		35,000.00
19.03.2020	NEFT-HIND HIGH VACUUM COMPANY PVT LTD-N07920109604750E		50,000.00
19.03.2020	NEFT-SHILPA INSTRUMENTS AND SERVICES-IDIBH20079389426		4,00,000.00
19.03.2020	NEFT-HW INDIA PVT LTD-BISS DV-CITIN20043728458		50,000.00
20.03.2020	NEFT-ADVANCE SCIENTIFIC EQUIPMENT PVT LT-N080201100015138		5,000.00
20.03.2020	NEFT-BIHAR STATE EDU FIN CORP L PATNA L-N080201100064704		24,700.00
31.03.2020	Semester Fees (Rs. 25,600)		1,02,400.00
31.03.2020	Semester Fees (Rs. 25,750)		51,500.00
31.03.2020	Visa Refund		238.20
	TOTAL		10,45,662.20

ANNEXURE - II: Cheques deposited but not cleared as on 31.03.2020

Date	Particulars	Chq. No.	Amount
23.10.2019	Semester Fees (Sandip Mandal)	715501	25,600.00
23.10.2019	Semester Fees (Kalyanmoy Mandal)	082146	25,600.00
23.10.2019	Semester Fees (Kumar Sroustabh)	230354	25,600.00
06.11.2019	Burapur Surgical Cluster-MSME	135681	2,010.00
09.03.2020	Semester Fees from Kumar Sourabh	871028	25,600.00
09.03.2020	Semester Fees from Kalyanmoy Mandal	082176	25,600.00
12.03.2020	Semester Fees from Arun Kumar Pibwal	006030	25,600.00
	TOTAL		1,55,610.00





# NATIONAL INSTITUTE OF FOUNDRY AND FORGE TECHNOLOGY

A Centrally Funded Technical Institute under MHRD

(Govt. of India)

HATIA, RANCHI- 834003 (JHARKHAND)



## STATEMENT OF ACCOUNTS FOR GENERAL PROVIDENT FUND FOR THE FINANCIAL YEAR 2019-20

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

*Audited by:*  
M/s Kumar Vikash & Company  
(Chartered Accountants)  
Ranchi





**NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY**  
**HATIA, RANCHI-834003**  
**GENERAL PROVIDENT FUND ACCOUNT**  
**BALANCE SHEET AS AT 31st MARCH, 2020**

Previous Year	Current Year	Previous Year	Current Year	Assets	Current Year
8,22,06,840.00	9,88,21,196.00	7,96,52,322.00	9,88,21,196.00	Investment in Term Deposit	8,06,15,974.00
Opening Balance	8,22,06,840.00			27303070000001/2	80,00,000.00
Add: Subscription	1,49,82,969.00			2730401001442/7	1,12,18,759.00
Add: Advances Recovered				2730401001442/8	1,74,01,608.00
Less: Withdrawals	48,67,000.00			2730401001627/4	1,59,01,012.00
Less: GPF Final settlements	5,08,592.00			2730401001848/7	77,77,812.00
Add: Interest Credited	70,06,979.00			2730401002217/5	1,01,58,391.00
Closing Balance	9,88,21,196.00			2730401002218/5	1,01,58,392.00
<b>1,28,00,489.29</b>	<b>1,09,48,190.36</b>	<b>32,05,428.00</b>	<b>1,09,48,190.36</b>	Accrued Interest	<b>29,40,249.07</b>
Interest Reserve				Cash at Bank	
Opening Balance	1,28,00,489.29			Canara Bank SB A/c No. 2730101007115	2,62,13,163.29
Less: Excess of Expense over Income	18,52,298.93				
Closing Balance	1,09,48,190.36				
<b>9,50,07,329.29</b>	<b>10,97,69,386.36</b>	<b>9,50,07,329.29</b>	<b>10,97,69,386.36</b>	<b>Total</b>	<b>10,97,69,386.36</b>

AS INTERNAL AUDITOR  
 For: M/s Kumar Vikash & CO (CHARTERED ACCOUNTANTS)

CA. Vikash Kumar (Proprietor)  
 MEMBERSHIP NO.: 423925



*(Signature)*  
 Deputy Registrar

शुभ कुलसचिव/Dy. Registrar  
 NIIFT, रॉंची/NIIFT, Ranchi

*(Signature)*  
 REGISTRAR  
 NIIFT, RANCHI

*(Signature)*  
 Director  
 निदेशक  
 DIRECTOR  
 NIIFT, हटिया, रॉंची-3  
 NIIFT, HATIA, RANCHI-3



**NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY**  
**HATIA, RANCHI-834003**  
**GENERAL PROVIDENT FUND ACCOUNT**  
**INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2020**

Previous Year	EXPENDITURE	Current Year	Previous Year	INCOME	Current Year
55,92,948.00	Interest credited to GPF Account	70,06,979.00	48,27,457.00	Interest Earned on Investment	47,81,999.07
273.00	Bank Charges	72.00	1,91,023.00	Interest received on FDR	50,47,178.00
			5,74,741.00	Add: Interest accrued on 31.03.2020	29,40,249.07
				Less: Interest Accrued on 31.03.2019	32,05,428.00
<b>55,93,221.00</b>	<b>Total</b>	<b>70,07,051.00</b>	<b>55,93,221.00</b>	Interest on Saving Bank Account	3,72,753.00
				Excess of Expenditure over Income adjust From Interest Reserve Account	18,52,298.93
				<b>Total</b>	<b>70,07,051.00</b>

AS INTERNAL AUDITOR  
 For: M/s Kumar Vikash & CO (CHARTERED ACCOUNTANTS)

CA. Vikash Kumar (Proprietor)  
 MEMBER (FIR) NO. M33928



*(Signature)*  
 REGISTRAR  
 NIFFT, RANCHI

*(Signature)*  
 DIRECTOR  
 निपट, हटिया, रांची-3  
 NIFFT, HATIA, RANCHI-3

*(Signature)*  
 Deputy Registrar

कुलसचिव/ Dy. Registrar  
 निपट, रांची/ NIFFT, Ranchi



**NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY**  
 HATIA, RANCHI-834003  
 GENERAL PROVIDENT FUND ACCOUNT  
 RECEIPT AND PAYMENT ACCOUNT FOR FINANCIAL YEAR ENDED 31st MARCH 2020

Previous Year	RECEIPTS	Current Year	Previous Year	PAYMENTS	Current Year
17,85,604.29	Opening Balance Canara Bank SB A/c No. 2730101007115	1,21,49,579.29	41,71,475.00	FD Investment	80,00,000.00
1,40,48,000.00	GPF Subscription	1,49,82,969.00	63,41,500.00	GPF Final Settlement	5,08,592.00
1,64,765.00	GPF Advance recovery		273.00	GPF Withdrawal	48,67,000.00
58,98,530.00	FD Encashment(30155723633/1 SBI)	1,10,69,482.00		Bank Charges	72.00
3,74,904.00	Interest on FD Encashment	10,14,044.00			
1,91,023.00	Interest on Saving Bank Account	3,72,753.00			
2,24,62,827.29	<b>Total</b>	<b>3,95,88,827.29</b>	1,21,49,579.29	Closing Balance	2,62,13,163.29
			2,24,62,827.29	Canara Bank SB A/c No. 2730101007115	3,95,88,827.29
				<b>Total</b>	

AS INTERNAL AUDITOR  
 For: M/s Kumar Vinash & CO (CHARTERED ACCOUNTANTS)

CA. VIKAS KUMAR (Proprietor)  
 MEMBERSHIP NO.: 303928



*(Signature)*  
 Deputy Registrar

शुभाशिव/Dy. Registrar, I.F.F.  
 निफ्ट/रांची/NIFFT, Ranchi

*(Signature)*  
 Registrar

REGISTRAR  
 NIFFT, RANCHI

*(Signature)*  
 Director

निफ्ट/रांची  
 DIRECTOR  
 निफ्ट, हरिया, रांची-3  
 NIFFT, HATIA, RANCHI-3



**GENERAL PROVIDENT FUND ACCOUNT  
DETAILS OF TERM DEPOSITS AS ON 31.03.2020**

Sl.	Account Number	Bank	Principal	Interest Accrued
1	2730401001627/4	CANARA	1,59,01,012.00	9,15,613.26
2	2730401001442/8	CANARA	1,74,01,608.00	2,48,168.86
3	2730401001442/7	CANARA	1,12,18,759.00	2,53,002.22
4	2730401001848/7	CANARA	77,77,812.00	60,025.74
5	2730401002217/5	CANARA	1,01,58,391.00	5,44,598.16
6	2730401002218/5	CANARA	1,01,58,392.00	5,44,598.17
7	2730307000001/2	CANARA	80,00,000.00	3,74,242.66
<b>Total:</b>			<b>8,06,15,974.00</b>	<b>29,40,249.07</b>

**Bank Reconciliation Statement as on 31.03.2020**

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

Particulars	Amount
Balance as per Ledger as on 31.03.2020	2,62,13,163.29
Balance as per Bank Statement as on 31.03.2020	2,62,13,163.29
Difference	-





**NATIONAL INSTITUTE OF FOUNDRY AND FORGE TECHNOLOGY**

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**STATEMENT OF ACCOUNTS FOR  
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME  
ACCOUNT  
FOR THE FINANCIAL YEAR 2019-20**

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

*Audited by:*  
**M/s Kumar Vikash & Company**  
(Chartered Accountants)  
Ranchi



NATIONAL INSTITUTE OF FOUNDRY AND FORGE TECHNOLOGY  
HATIA, RANCHI-834003

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME ACCOUNT

BALANCE SHEET AS AT 31st MARCH, 2020

SOURCES OF FUNDS		Schedule	Current Year 2019-20	Previous Year 2018-19
CORPUS/CAPITAL FUND	1		2,45,34,522.17	2,79,74,405.80
	TOTAL		2,45,34,522.17	2,79,74,405.80
APPLICATION OF FUNDS		Schedule	Current Year 2019-20	Previous Year 2018-19
FIXED ASSETS	2		2,26,74,284.06	2,61,14,167.69
CURRENT ASSETS	3		7,05,484.11	7,05,484.11
LOANS, ADVANCES & DEPOSITS	4		11,54,754.00	11,54,754.00
	TOTAL		2,45,34,522.17	2,79,74,405.80

AS INTERNAL AUDITOR

For: M/s Kumar Vikash & Co. (CHARTERED ACCOUNTANTS)

CA. Vikash Kumar (Proprietor)  
MEMBERSHIP NO.: 423928



*(Signature)*  
Deputy Registrar

कुलसचिव/Dy. Registrar  
नि.प.ए. राँची/NIFFT, Ranchi

*(Signature)*  
Registrar  
REGISTRAR  
NIFFT, RANCHI

*(Signature)*  
Director  
निदेशक  
DIRECTOR  
नि.प.ए. राँची-3  
NIFFT, HATIA, RANCHI-3



**NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY**  
HATIA, RANCHI-834003

**TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME ACCOUNT**

**INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON 31st MARCH, 2020**

	INCOME	Schedule	Current Year	Previous Year
GRANTS		-	-	-
OTHER INCOME		-	-	-
<b>TOTAL(A)</b>			-	-

	EXPENDITURE	Schedule	Current Year	Previous Year
OTHER EXPENSES		-	-	-
DEPRECIATION		2	34,39,883.63	39,05,253.31
<b>TOTAL(B)</b>			34,39,883.63	39,05,253.31
<b>Balance Being Deficit Carried to Capital Fund</b>				
			<b>(34,39,883.63)</b>	<b>(39,05,253.31)</b>

AS INTERNAL AUDITOR

For: M/s Kumar Vikash & CO. (CHARTERED ACCOUNTANTS)

*(Signature)*  
CA. Vikash Kumar (Proprietor)  
MEMBERSHIP NO.: M23928



*(Signature)*  
Deputy Registrar

का कुलसचिव / Dy. Registrar  
नि.ए. रॉबी / NIFFT, Ranchi

*(Signature)*  
Registrar

REGISTRAR  
NIFFT, RANCHI

*(Signature)*  
Director

DIRECTOR  
नि.ए. रॉबी / NIFFT, RANCHI-3



**NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY**  
HATIA, RANCHI-834003

**TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME ACCOUNT**  
RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31.03.2020

Previous Year	RECEIPTS	Current Year	Previous Year	PAYMENTS	Current Year
	Opening Balances			Expenses	
1,255.00	A) Cash Balances	1,255.00		Closing Balances	
7,04,229.11	B) Bank Balances	7,04,229.11	1,255.00	A) Cash Balances	1,255.00
	Receipts		7,04,229.11	B) Bank Balances	7,04,229.11
<b>7,05,484.11</b>		<b>7,05,484.11</b>	<b>7,05,484.11</b>		<b>7,05,484.11</b>

AS INTERNAL AUDITOR

For: M/s Kumar Vikash &amp; CO. (CHARTERED ACCOUNTANTS)

*(Signature)*  
CA. Vikash Kumar (Proprietor)  
MEMBERSHIP NO.: 428928



*(Signature)*  
Deputy Registrar

**डा. कुलसचिव/ Dy. Registrar**  
निफ्ट, राँची/ NIFFT, Ranchi

*(Signature)*  
Registrar

**REGISTRAR**  
NIFFT, RANCHI.

*(Signature)*  
Director

**निदेशक**  
**DIRECTOR**  
निफ्ट, हरिया, राँची-3  
NIFFT, HATIA, RANCHI-3





**SCHEDULE - 1 - CORPUS/CAPITAL FUND**

Particulars	Current Year	Previous Year
Balance at the beginning of the year	2,79,74,405.80	3,18,79,659.11
Add: Contributions towards Corpus/Capital fund	-	-
Add: Grants Received	-	-
Add: Excess of Income over Expenditure transferred from the Income & Expenditure Account	-	-
<b>TOTAL</b>	<b>2,79,74,405.80</b>	<b>3,18,79,659.11</b>
Deduct: Deficit transferred from Income & Expenditure Account	(34,39,883.63)	(39,05,253.31)
<b>Balance at the year end</b>	<b>2,45,34,522.17</b>	<b>2,79,74,405.80</b>



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

S.No	Assets Heads	Opening Balance	Additions	Deductions	Total	Depreciation for the Year	Closing Balance
	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
1	Scientific & Laboratory Equipment	2,56,08,061.65	-	-	2,56,08,061.65	29,77,174.70	2,26,30,886.95
2	Furniture, Fixtures & Fittings	1,12,782.24	-	-	1,12,782.24	69,385.13	43,397.11
3	Lib. Books & Scientific Journals	3,93,323.80	-	-	3,93,323.80	3,93,323.80	0.00
	<b>Total ( C )</b>	<b>2,61,14,167.69</b>	<b>-</b>	<b>-</b>	<b>2,61,14,167.69</b>	<b>34,39,883.63</b>	<b>2,26,74,284.06</b>

**SCHEDULE- 3 - CURRENT ASSETS(OB)**

Particulars	Current Year	Previous Year
1. cash in Hand	1,255.00	1,255.00
2. Cash at Bank	7,04,229.11	7,04,229.11
<b>Total</b>	<b>7,05,484.11</b>	<b>7,05,484.11</b>

**SCHEDULE- 4 - LOANS & ADVANCES(OB)**

Particulars	Current Year	Previous Year
1. M/s Ed.CIL (India) Ltd.	11,23,225.00	11,23,225.00
2. M/s NIFFT	31,529.00	31,529.00
<b>Total</b>	<b>11,54,754.00</b>	<b>11,54,754.00</b>





**NATIONAL INSTITUTE OF FOUNDRY AND FORGE TECHNOLOGY  
HATIA, RANCHI-834003**

**SIGNIFICANT ACCOUNTING POLICIES AND NOTES ON ACCOUNTS (FY: 2019-20)**

**A- SIGNIFICANT ACCOUNTING POLICIES**

**A) GENERAL**

The Financial Statement are prepared in three parts i.e. (i) Receipts and Payments Account, (ii) Income and Expenditure Account and (iii) Balance sheet along with other four subsidiary accounts of the Institute viz. NIFFT- General Provident Account, Technical Education Quality Improvement Programme-NIFFT, Ministry of Steel Technical Wing Account-NIFFT and Workshop on Excellence in Manufacturing Account-NIFFT. The Annual Accounts of the Institute for FY 2019-20 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 17<sup>th</sup> April, 2015.

**SIGNIFICANT ACCOUNTING POLICIES**

**1. Accounting Convention:**

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

**2. Revenue Recognition:**

- (i) The Institute is funded by the Ministry of Human Resource & Development (MHRD), Govt, of India. The government releases the Grant-in-Aid under two major heads i.e. PLAN and NON-PLAN. Grant-in-aid from Government of India is accounted for in the same financial year for which it is sanctioned by the MHRD, Government of India.
- (ii) The Institute, by way of its own nature/character, generates Internal Income. The major sources are various fees realized from students, interest earned on investments, consultancy and testing fees and other miscellaneous income. Fee from Students, Sale of Admission forms and realization against discarded/writtenoff 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.

**3. Fixed Asset & Depreciation:**

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

#### 4. Capital Work-in-Progress:

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

#### 5. Investments:

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

#### 6. Corpus/Capital Fund:

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

#### 7. Foreign Currency Transactions:

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



**8. Provisions:**

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

**9. Income Tax:**

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

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

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

For M/s Kumar Vikash & Company.  
Chartered Accountants

CA Vikash Kumar  
(Proprietor)



Deputy Registrar

Registrar

Director

**B- NOTES ON THE ACCOUNTS**

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

2. In the Balance sheet as on 31.03.2015 and the Balance Sheet of earlier years, Fixed Assets Created out of Plan Funds and Non Plan Funds were not exhibited distinctly. The Additions during the Year from 01.04.2015 from Plan and Non Plan Funds and the depreciation on those additions respectively have been exhibited distinctly in Sub Schedules A & B to the main schedule of Fixed Assets (Schedule -3).

3. SBI Bank A/c no - 36228721268 was treated as bank a/c for the F.Y. 2015-16 but from the Financial Year 2017-18, It is treated under the head loans, Advances & Deposit. The Institute explanation regarding the same is that the bank A/c is treated as advance with the limit of Rs. 10 lakh payment is made through this a/c for any expenditure made and the same A/c is claimed from the main A/c.

**4. Expenditure in Foreign Currency**

NIL

5. 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.

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

7. Schedule 1 to 26 are annexed to and bears an integral part of Balance Sheet as at 31<sup>st</sup> March 2020 and Income and Expenditure account for the year ended on that date.

For M/s Kumar Vikash & Company.

Chartered Accountants

CA Vikash Kumar  
(Proprietor)

Deputy Registrar

Registrar

Director





# **National Institute of Foundry & Forge Technology**

**A Centrally Funded Technical Institute under MHRD  
(Govt, of India)**

**HATIA, RANCHI- 834003 (JHARKHAND)**



**Separate Audit Report  
For the Financial Year 2019-20**



# भारतीय लेखापरीक्षा और लेखा विभाग

कार्यालय महानिदेशक लेखापरीक्षा (केन्द्रीय) लखनऊ



# INDIAN AUDIT AND ACCOUNTS DEPARTMENT

Office of the Director General of Audit (Central) Lucknow

No. DGAC/LKO/SAR-NIFFTR (2019-20)/2020-21/264

Dated:12.03.2021

The Director,  
National Institute of Foundry and Forge Technology (NIFFT),  
Hatia,  
Ranchi -834003

**Subject: Separate Audit Report on the accounts of National Institute of Foundry and Forge Technology (NIFFT), Hatia, Ranchi for the year 2019-20.**

Sir,

I enclose a copy of the Audit Report and Audit Certificate along with audited Annual Accounts of National Institute of Foundry and Forge Technology, Hatia, Ranchi for the year 2019-20 for information and necessary action.

2. A copy of each of the documents has been sent to the Secretary to the Government of India, Ministry of Human Resource Development, 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 National Institute of Foundry and Forge Technology, 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,

Encl: - As above.

Director General of Audit (Central), Lucknow

तृतीय तल, आडिट भवन, टी०सी०-३५-वी-१, विभूति खण्ड, गौती नगर, लखनऊ-२२६०१० (उ०प्र०) दूरभाष : ०५२२-२९७०७८९, फैक्स : ०५२२-२९७०७८० (म.नि.)  
3rd Floor, Audit Bhawan, T.C.-35-V-1, Vibhuti Khand, Gomti Nagar, Lucknow-226010 Ph. : 0522-2970789, Fax : 0522-2970780 (DG)





**Separate Audit Report of the Comptroller & Auditor General of India on the accounts of National Institute of Foundry and Forge Technology, Hatia, Ranchi for the year ended 31 March 2020.**

We have audited the Balance Sheet of National Institute of Foundry and Forge Technology, Hatia, Ranchi as at 31 March 2020 and the Income & Expenditure Account and Receipts & Payments Account for the year ended on that date under Section 20(1) of the Comptroller & Auditor General's (Duties, Powers & Conditions of Service) Act, 1971 read with Section 20 (i to ii) of the Memorandum of Association of National Institute of Foundry and Forge Technology Society. The audit has been entrusted for the period up to 2017-22. These financial statements are the responsibility of the Institute's management. Our responsibility is to express an opinion on these financial statements based on our audit.

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

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

4. Based on our audit, we report that:

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

(ii) The Balance Sheet, Income & Expenditure Account and Receipts & Payments Account dealt with by this report have been drawn up in the format approved by the Government of India, Ministry of Human Resource Development.



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

(iv) We further report that;

**A Balance sheet**

**A.1 Liabilities**

**A.1.1 Corpus/Capital Fund (Schedule-1) – Rs. 110.38 crore**

**A.1.1.1** The Institute received Grants of Rs. 44.96 crore (Capital Rs. 10.00 crore and Revenue Rs. 34.96 crore) from MHRD during the financial year 2019-20. The unspent balance of previous year was Rs. 33.61 crore (Plan Rs. 23.23 crore and Revenue Rs. 10.38 crore). Thus the Institute had total fund of Rs.78.57 crore. Out of this, the institute incurred expenditure amounting to Rs. 38.45 crore (Capital Rs. 5.96 crore and Revenue Rs. 32.49 crore). As such Rs. 40.12 crore was to be exhibited as 'Refundable to Ministry' under the head capital. But the institute exhibited Rs. 24.78 crore only 'Refundable to Ministry'. This resulted in overstatement of Capital fund and understatement of Current liabilities under the head grant 'Refundable to Ministry' by Rs. 15.34 crore.

**A.1.2 Current Liabilities (Schedule-2) - Rs. 31.43 crore**

**A.1.2.1** The Institute deposited Rs. 570.53 lakh (CPWD (Civil) Rs. 125.08 lakh and CPWD (Electrical) Rs. 445.45 lakh) for 24 works (Civil 6 works & Electrical 18 works)(Annexure-I & II), against which CPWD incurred expenditure of Rs.847.26 lakh (Civil Rs. 180.79 lakh and Electrical Rs. 666.47 lakh) upto 31.3.2020. As such the Institute was required to exhibit Rs. 276.84 lakh (Civil Rs. 55.82 lakh & Electrical Rs. 221.02 lakh) as liability. Non depiction resulted in understatement of liability and assets (WIP) by Rs. 276.84 lakh.

**A.2 Fixed Assets (Schedule-3) - Rs. 93.61 crore**

**A.2.1** CPWD (Civil) completed the 10 nos works of Rs. 10.42 crore during the year. As per Common Format of Accounts, the works got completed in the current year are transferred to respective fixed assets. But the Institute did not transfer these Assets to the respective fixed assets. This resulted in understatement of fixed assets and overstatement of WIP by Rs. 10.42 crore.



**A.2.2** The Institute showed Rs. 78.03 crore under the WIP. Out of this, Rs. 2.37 crore was incurred during the year and Rs. 75.67 crore for the previous year's works and which had already been completed by the CPWD. As per Common Format of Accounts of Capital work-in-progress, those works in progress (opening balance plus additions during the year) which get completed in the current year are transferred to respective fixed assets. But the Institute did not capitalize assets under the respective fixed assets. This resulted in understatement of fixed assets and overstatement of WIP by Rs. 75.67 crore.

#### **B. Receipts and Payments Account**

##### **B.1 Cash/Bank balance was overstated by Rs. 2.50 lakh**

Scrutiny of Bank reconciliation statement revealed that receipts of Rs. 2.50 lakh was received through various instruments more than three month, which were debited in cash/bank books but were not credited in bank till audit. This resulted in overstatement of Cash/Bank balance to that extent.

#### **C. Accounting Policy and Notes to Accounts**

**C.1** The Institute was situated on land leased by M/s HEC and the lease agreement expired in June 1998, but it was not renewed by M/s HEC till March 2020. This was not mentioned even in the Notes on Accounts.

**C.2** The Institute is accounting retirement benefit on cash basis. The accounting policy adopted by the Institute contravenes Accounting Standard 15 issued by ICAI as well as format of accounts prescribed by MHRD which requires that retirement benefits should be accounted on actuarial valuation basis.

**C.3** As per general significant accounting policy, the Institute did not prepare the separate account of Ministry of Steel, Technical wing Account, NIFFT and Workshop on Excellence in Manufacturing Accounts-NIFFT and the Institute did not prepare separate Balance Sheet, Income & Expenditure and Receipts and Payment accounts in the Annual Accounts.

#### **D. General**

##### **D.1 Dormant Accounts**

Closing balance of Receipts and Payments Account depicted dormant bank account with bank balance of Rs. 3,344.10 in SBI Savings account at Hatia and Rs. 1,166.00 in Canara Bank saving account at Hatia, Ranchi. The Institute, however, could not



produce Cash book or Bank statement against these accounts. As such, Bank balance is overstated to that extent.

**D.2** The Institute is not accounting the collection received from students on account of NIFFT Alumni Committee at the time of admission. A policy should be framed and the amount received on behalf of NIFFT Alumni Committee may be accounted for.

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

The Institute received Grants amounting to Rs. 44.96 crore (Capital Rs. 10.00 crore and Revenue Rs. 34.96 crore) from MHRD during the financial year 2019-20. The internal income of the Institute was Rs. 3.37 crore and interest earned on Government Grant was Rs. 1.29 crore (Capital Rs. 0.31 crore, Revenue Rs. 0.56 crore and IRG Rs. 0.42 crore). The unspent balance of previous year was Rs. 41.28 crore (Plan Rs. 23.23 crore and Revenue Rs. 10.38 crore and internal resources Rs. 7.67 crore). Thus, the Institute had total fund of Rs. 90.90 crore (Capital Rs. 33.54 crore, Revenue Rs. 45.90 crore and Internal resources Rs. 11.46 crore). Out of which the Institute utilized a sum of Rs. 38.45 crore (Capital Rs. 5.96 crore and Revenue Rs. 32.49 crore) and leaving of balance of Rs. 52.45 crore (Capital Rs. 27.58 crore and Revenue Rs. 13.41 crore and internal resources Rs. 11.46 crore) as unutilized amount as on 31.03.2020.

#### **F. Management letter**

Deficiencies which have not been included in the Audit Report have been brought to the notice of the Institute through a management letter issued separately for remedial/corrective action.

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

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



- (a) In so far as it relates to the Balance Sheet, of the state of affairs of the National Institute of Foundry and Forge Technology (NIFFT) , Hatia, Ranchi as at 31<sup>st</sup> March 2020, and
- (b) In so far as it relates to Income and Expenditure Account of the Surplus for the year ended on that date.

For and on behalf of the  
Comptroller and Auditor General of India

Place : Lucknow

Date : 12.3.2021

Director General of Audit (Central), Lucknow



### Annexure to Audit Report

#### 1. Adequacy of Internal Audit system:

The Internal Audit Wing of the Institute consists of one person only who conduct pre-check of bills only. Besides, no Internal Audit Manual has been prepared. Internal audit is conducted by a CA Firm.

#### 2. Adequacy of Internal Control System:

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

- The Institute has not prepared 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 have not been put in place.
- Poor manpower management exists in the Institute. More than 50 percent teaching and non-teaching posts were lying vacant in the institute for long period
- No transfer policy is in place especially the employees dealing with cash, valuables, stores and stock.
- Physical progress of the work-in-progress of buildings was not monitored by the concerned authority, resulting in delays in completion of these buildings.
- There is no Investment Committee in the Institute for investment of GPF and other surplus funds.
- Register of valuables has not been maintained.
- No proper procedures for checking, reconciliation, and authentication of ledgers have been designed.
- Advance was pending for more than 05 years for settlement.
- Expenditure control register was not maintained by the Institute.

#### 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.