



# NATIONAL INSTITUTE OF FOUNDRY AND FORGE TECHNOLOGY

A Centrally Funded Technical Institute Under MHRD (Govt. of India)

HATIA, RANCHI - 834 003 (JHARKHAND) INDIA  
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NATIONAL INSTITUTE  
OF  
FOUNDRY AND FORGE  
TECHNOLOGY

प्रशासनिक भवन ADMINISTRATIVE BUILDING

**ANNUAL REPORT**  
**2018-2019**

## BOARD OF GOVERNORS

1	<p><b>Shri Madhu Ranjan Kumar,</b>          Joint Secretary (DL &amp; BP), Room No.122 B-C          Ministry of Human Resource Development,          Department of Higher Education, Govt. of India,          Shastri Bhawan, New Delhi-110115</p>	In-Chair
2	<p><b>Smt. Darshana M. Dabral, JS &amp; FA</b>          Ministry of Human Resource Development          Department of Higher Education          Government of India, New Delhi 110 115          Attended by Sri D. K. Singh          Under Secretary, IFD, MHRD</p>	Member
3	<p><b>Professor Amol A Gokhale</b>          Department of Mechanical Engineering          Indian Institute of Technology, Bombay          IIT Area, Powai, Mumbai, Maharashtra 400076</p>	Member
4	<p><b>Professor D. Ravi Kumar</b>          Department of Mechanical Engineering          Indian Institute of Technology, Delhi          Hauz Khas New Delhi 110 016, India</p>	Member
5	<p><b>Professor M.K. Tiwari</b>          Department of Industrial Engg. and Management          Indian Institute of Technology (IIT)          Kharagpur 721 302 (W.B)</p>	Member
6	<p><b>Professor S. B. Kumar</b>          Dept.of MME,          NIFFT, Hatia, Ranchi</p>	Member
7	<p><b>Professor Amitava Mandal</b>          Dept. of ME          NIFFT, Hatia, Ranchi-3</p>	Member
8	<p><b>Professor P P Chattopadhyay</b>          Director          NIFFT, Hatia, Ranchi-3</p>	Member Secretary
9	<p><b>Professor R.K. Ohdar</b>          Prof. I/c Admin, NIFFT, Hatia, Ranchi-3          Invited Member</p>	Invited Member

## ADMINISTRATIVE AND FINANCE COMMITTEE

1	<b>Shri Madhu Ranjan Kumar</b> Joint Secretary (DL & BP) Room No. 122 B-C Ministry of Human Resource Development, Department of Higher Education, Govt. of India, Shastri Bhawan, New Delhi-110115	In-Chair
2	<b>Smt. Darshana M. Dabral, JS &amp; FA</b> Ministry of Human Resource Development Department of Higher Education Government of India, New Delhi 110 115	Member
3	<b>Professor S. B. Kumar,</b> Dept. of MME, NIFFT, Hatia, Ranchi	Member
4	<b>Professor Amitava Mandal</b> Dept. of ME NIFFT, Hatia, Ranchi-3	Member
5	<b>Professor P P Chattopadhyay</b> Director NIFFT, Hatia, Ranchi-3	Member Secretary
6	<b>Professor R.K. Ohdar</b> Prof. I/c Admin NIFFT, Hatia, Ranchi-3 Invited Member	Invited Member



## STANDING BUILDING COMMITTEE

1	<b>Prof. Partha Protim Chattopadhyay</b> Director, NIFFT, Hatia, Ranchi - 834003	Chairman
2	<b>Shri Madhu Ranjan Kumar,</b> Joint Secretary (DL & BP) Room No. 122 B-C, Ministry of Human Resource Development Department of Higher Education, Govt. of India, Shastri Bhawan New Delhi-110115	Member
3	<b>Dr. S.B. Kumar,</b> Member, BoG, Dept. of MME, NIFFT, Hatia, Ranchi - 834003	Member
4	<b>Prof. Binod Kumar,</b> Dean (Planning & Development), NIFFT, Hatia, Ranchi - 834003	Member
5	<b>Mr. S Pandey</b> GM (Engg. & Estate), Mecon Limited, Doranda, Ranchi - 834002	Member
6	<b>Mr. Janak Mahto</b> Director, NBCC, 401, Mangal Tower, Old H.B. Road, Ranchi-1	Member
7	<b>Shri S. Bandyopadhyay</b> A.M, Electrical Engineer Heavy Engineering Corporation Limited, Dhurwa, Ranchi - 834004	Member
8	<b>Professor Debasis Roy</b> Member Civil Construction and Maintenance Indian Institute of Technology, Kharagpur, Kharagpur, India - 721302	Member
9	<b>Dr. K. Sudhakar Reddy</b> Professor & Head, Civil Engineering Department Indian Institute of Technology Kharagpur, Kharagpur, West Bengal - 721 302	Member
10	<b>Executive Engineer (Elect.)</b> RCED, CPWD, Doranda, Ranchi - 2	Spl. Invitee
11	<b>Executive Engineer (Civil)</b> RCD, CPWD, Doranda, Ranchi - 2	Spl. Invitee
12	<b>Prof. R.K.Ohdar</b> Dept. of Forge Technology, I/C Administration, NIFFT, Hatia, Ranchi -3	Member Secretary

## ACADEMIC COUNCIL

1	Dr. P.P. Chattopadhyaya	Director
2	Vice Chancellor Ranchi University or His Nominee	Member
3	Dean, Faculty of Science, Ranchi University, Ranchi	Member
4	Controller of Examination, Ranchi University, Ranchi	Member
5	Sri Atul Saxena, GM & In-charge RDCIS, SAIL, Ranchi	Member
6	Sri Deepak Dokania, Director, BMC Metalcast Ltd, Jamshedpur	Member
7	Prof. M.K. Agrawal, Dept. of Metallurgical & Materials Engineering, NIT, Jamshedpur	Member
8	Dr. T. Venugopalan, Chief Technical Officer, TATA Steel, Jamshedpur	Member
9	Dr. D. Mukherjee, Steel Chair Professor	Invited Member
10	Professor S.R. Kumar, HOD (DASH)	Member
11	Dr. Amitesh Kumar, HOD (Foundry Tech.)	Member
12	Professor A.K. Singh, NIFFT, Ranchi	Member
13	Professor K.K. Singh, NIFFT, Ranchi	Member
14	Professor Nandita Gupta, NIFFT, Ranchi	Member
15	Dr Manoj Kumar, HOD (Forge Tech.)	Member
16	Professor P. Talukdar, NIFFT, Ranchi	Member
17	Professor R.K. Ohdar, NIFFT, Ranchi	Member
18	Dr. Vijay Toppo, HOD (ME)	Member
19	Professor Sanjay Kumar, NIFFT, Ranchi	Member
20	Professor A. Mondal, NIFFT, Ranchi	Member
21	Professor A.K. Pathak, NIFFT, Ranchi	Member
22	Dr. G. Das, HOD (MME)	Member
23	Professor B.K. Chakraborty, NIFFT, Ranchi	Member
24	Professor S.B. Kumar, NIFFT, Ranchi	Member
25	Professor B. Kumar, NIFFT, Ranchi	Member
26	Professor N.K. Singh, Dean Academic, NIFFT, Ranchi	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., Ph.D. (Ranchi University)	Professor
2	<b>Dr. K. K. Singh,</b> B. Sc. Engg. ( Met.), M.Tech. ( Met. Engg.), Ph.D. (IIT Kanpur), LMIFO, LMIIIM, 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. (IIT Kharagpur), MIIF, LMIIM, LMIFO	Associate Professor

## 2. ACTIVITIES:

### 2.1 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.

## 2.2 Research and Development/ Projects.

- (i) Doctoral & Post Doctoral Programmes-6 Ph. D. scholars were in 2018-19.
- (ii) M.Tech., B.Tech. and ADC Projects and seminars – As per academic record for year 2017-2018.

## 2.3 Seminar/ Conference/ Presentation / Publications.

1. Dr Nandita Gupta, (2018) “Gender Gap in disciplines related to (STEM): A constraint to innovation, hindering productivity, growth and economic development” Workshop On “Role of Women in STEM” September 14th, 2018, by Institution of Engineers Jharkhand State at Nepal House Doranda.
2. A. K. Singh, Bageesh Bihari, “Synthesis and characterization of hybrid reinforced metal matrix composites” presented a paper in ICMME 2018 at Kuala Lumpur, Malaysia, March 17-19, 2018.
3. Amitesh Kumar, “Modeling and Experimental Validation of Deformation of Al-33 Cu Droplet during Impingement on a Substrate” presented a paper in ICMME 2018 at Kuala Lumpur, Malaysia, March 17-19, 2018.
4. Nandita Gupta, S. Sen, “Development of microstructure and texture of medium carbon steel during warm deformation” in NIFFT, during 14th 15th April 2018.
5. Nandita Gupta, S. Sen, “Effect of Heat Treatment parameters on the carbon Spheroidization of 0.46% Carbon steel.” Presented in NCAMMM – 2018 during Feb. 16th -17th 2018 at CMERI Durgapur.
6. Amitesh Kumar, Modeling and Experimental Validation of Deformation of Al-33Cu Droplet during Impingement on a Substrate, Materials Science and Engineering 409 (2018) 012026 doi : 10.1088/1757-899X/409/1/012026.
7. Rajat Upadhyaya, Kamlesh Kumar Singh, Rajeev Kumar and Himanshu Pathak, Effect of One Step In-Mould Inoculation Method on the Characterization of Thin Wall Ductile Iron, International Journal of Metallurgy and Metal Physics, 2018, 3(2), pp. 1-8.
8. Mohd. Nadeem Bhatt, D. M. Afzal Khan, K. K. Singh, Effect of inoculation and nodularisation treatment temperature on recalescence and eutectic undercooling temperature in Spheroidal graphite (SG) cast iron, International Journal of Cast Metals Research, 2018, 31(5), pp. 261-268.
9. Rajat Upadhyaya, Kamlesh Kumar Singh and Rajeev Kumar. Study on the effect of austempering temperature on the Structure- Properties of Thin Wall Austempered Ductile Iron, Material Today, 2018, 5(5), Part 2, pp. 13472-13477.
10. Rajat Upadhyaya and Kamlesh Kumar Singh. Effect of some inoculants on the structure and properties of thin wall ductile iron. Material Today, 2018, 5(2), Part 1, pp. 3595-3601.

11. Dr. K. K. Singh Presented a technical paper on “Aluminium alloys, conventional cast and Rheocast” in a National Seminar on Opportunity and Challenges in use of Aluminium alloy in automotive industry at Habitat Centre, New Delhi on 8th September, 2018. Seminar organised by Indian Foundry Organisation (IFO).
12. One day workshop organised by Dr. Nandita Gupta Chairman and members Women cell NIFFT on “Awareness friendly attitude, ecofriendly behaviour and Mediation of relationship in the context of Indian Youth” 28<sup>th</sup> August 2018 at NIFFT.

#### 2.4 Industrial services and Consultancy:

##### Consultancy:

Consultancy “Prepared and submitted Detail Project Report for common Facility Center for Bauripur Surgical Cluster, Kolkata, W.B.; Taken by Dr. A. K. Singh, Dr. K.K. Singh and Dr. Amitesh Kumar. The consultancy charge of Rs. 15.0 Lacks.

Consultancy “Causes and remedy for centrifugal casting defects at GIF Jabalpur by Dr. Amitesh Kumar.

##### Industrial Tour/Training:

Dr. Amitesh Kumar, Co-ordinated and demonstrated Foundry workshop equipments to CMA trainees of Indian Railways, IRIMEE Jamalpur in Foundry Technology Department during their technical visit 23<sup>rd</sup> – 25<sup>th</sup> August 2018.

#### 2.5 Administrative Activities:

1.	<b>Dr. K. K. Singh</b>	Member Tender Committee Chairman Students Gymkhana Member Secretary of Golden Jubilee celebration committee of NIFFT
2.	<b>Prof. A. K. Singh</b>	Chairman Purchase Committee Dean Student
3.	<b>Dr. Amitesh Kumar</b>	Member Anti-ragging Committee Member of Tender Committee HOD Foundry Technology Deptt.

#### 1.5 Seminar conferences organized/attended

- 1) One day workshop organised by Dr. Nandita Gupta Chairman and members Women cell NIFFT on “Awareness friendly attitude, ecofriendly behaviour and Mediation of relationship in the context of Indian Youth” 28<sup>th</sup> August 2018 at NIFFT.
- 2) Kamlesh Kumar Singh, as Vice President (Technical), IFO organised the National Seminar on Opportunity and Challenges in use of Aluminium alloy in automotive industry at Habitat Centre, New Delhi on 8<sup>th</sup> September, 2018.

#### 2.6 Achievements

Dr. K.K. Singh was nominated as National Vice-President (Technical) of Indian Foundry Organization from May 2015 and continuing.



## DEPARTMENT OF FORGE TECHNOLOGY

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 program was introduced with the specialization of foundry and forge technology. Subsequently in 1991, two B Tech programs, 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. P. Talukdar,</b> B.E. (Met.), M.E. (Met. Engg.), Ph.D. (Jadavpur University)	Professor
2	<b>Dr. N. K. Singh,</b> B.Sc. Engg. (Mech.), M.Tech. (Foundry & Forge Tech.) Ph.D. (Ranchi 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)	Associate Professor & HoD
5	<b>Mr. Vineet Chak</b> M.Tech. (IIT Roorkee)	Assistant Professor
6	<b>Mr. Ajit Kumar Pramanik</b> M.Tech. (IIT Roorkee), Ph.D. (Jadavpur University)	Assistant Professor

## ACTIVITIES

### Academic Activities:

Number of subjects offered by the department:

Name of Course	No. of Subjects Offered
B.Tech. Course (ME & MME)	8
M.Tech. Course (Foundry-Forge & Mfg. Engg.)	6
A.D.C. (Foundry Tech. & Forge Tech.)	9

### Ph.D. Completed/ continuing in the Department:

1. Mr. M. Sivadasan, a regular Ph.D. Student of the Department of Forge Technology, NIFFT, Hatia, Ranchi is 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, NIFFT, Hatia, Ranchi - 834003. He has submitted his thesis in 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.
3. Md Asif Equbal, a part-time Ph.D. student of the Faculty of Engineering, Ranchi University, Ranchi working in the area of "Study on Supply Chain Performance Measurement in Indian Context" under the guidance of Dr. R. K. Ohdar, Professor, Forge Technology Department, has completed his thesis defense and been awarded Ph.D. degree from Ranchi University.
4. 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, Associate Professor, Forge Technology Department, NIFFT, Hatia, Ranchi - 834003.
5. Mr Sushant Rath, Sr. Manager (FR), RDCIS, SAIL, Ranchi - 834002, a part-time Ph.D. Student of the Faculty of Engineering, Ranchi University, Ranchi is working in the area of "Development of Mathematical-Artificial Neural Network hybrid auto-adaptive intelligent model for prediction of Roll force and mechanical properties during hot rolling of flat steel products" under the guidance of Dr. P. Talukdar, Professor, Forge Technology Department, NIFFT, Hatia, Ranchi - 834003.
6. Mr Amar Kumar, Assistant Professor, BIT Mesra, Ext Centre- Lalpur, Ranchi - 834002 a part-time Ph.D. Student of the Faculty of Engineering, Ranchi University, Ranchi is working in the area of "Optimization Of Parameters Influencing Energy Conservation In Power Sector Using Soft Computing Techniques" under the guidance of Dr. R. K. Ohdar, Professor, Forge Technology Department, NIFFT, Hatia, Ranchi - 834003 and Dr. Umesh Prasad, Assistant Professor, Department of Computer Science, BIT Mesra, Ext Centre- Lalpur, Ranchi - 834002.
7. 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 Ajit Kumar Pramanick.



## DEPARTMENT OF MANUFACTURING ENGINEERING

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 Ph.D. 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.), Ph.D., MIIM, MIIF	Associate Professor & HoD
6	<b>Dr. G. Rajamohan</b> B.E.(Mech.), M.E.(Mfg.Tech.), Ph.D., MIE	Associate Professor
7	<b>Dr. A. K. Sood</b> B.E.(Mech.), M.E.(Design.), Ph.D.	Associate Professor
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

## 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

### Paper review:

Review following number of papers:

Journal name	Paper review
Additive manufacturing	02
Robotics and Computer Integrated Manufacturing	01
Advance Manufacturing	01

### Ph.D. Guidance

1. Mr. Krishna Kumar Verma successfully defended his Ph.D. Thesis entitled "Computer-aided design of freeform surfaces using sparse and dense measurement data" during June 2018. This research work was carried out by him under the joint guidance of Dr. G. Rajamohan and Dr. Amitava Mandal.
2. Mr. Shariqul Hoda has joined as a Fulltime Scholar with Institute Scholarship under the guidance of Dr. G. Rajamohan. He will be working on metrology.

### Ph.D. Thesis Review

1. Reviewed a Ph.D. Thesis for VIT University, Vellore.

### Journal Papers Review

1. Reviewed about 10 papers for International Journal of Advanced Manufacturing Technology.

### Conference Chair

- 1) Invited to chair technical sessions in the International Conference on Computational Methods in Manufacturing (ICMM 2019), organized by the Department of Mechanical Engineering, Indian Institute of Technology Guwahati during March 2019.

**Invited Talks**

- 1) Delivered two invited talks at a short term course on coordinate metrology, organized by the Department of Mechanical Engineering, SRM Institute of Science and Technology, Chennai during January 2019. The topics were “Overview of coordinate metrology” and “Measurement strategies for CMMs”.

**Short Term Course Attended**

- 1) Attended a 5 days course on “Geometric Dimensioning and Tolerancing (GD&T)” at Central Manufacturing Technology Institute, Bangalore during December 2018.

**Ph.D. thesis completed: 01**

- 1) Thesis title: Development, Characterization and Machinability Study of Al/SiCP Metal Matrix Nano Composite. Supervised by Dr. Ratnakar Das and Dr. Ashok Kumar Sahoo, Dean School of Mechanical Engineering, KIIT (Deemed to be University), Bhubaneswar Odisha.

**Ph.D. ongoing: 04**

1. Rita Kumari Sahu (supervisors: Dr. Ratnakar Das, NIFFT and Dr. B. C. Routara, KIIT, Odisha)
2. Shambhu Kumar (Supervisors: Dr. Ratnakar Das and Dr. S. K. Parida, NIFFT)
3. M. K. Gupta (Supervisors: Dr. V. Toppo and Dr. Ratnakar Das, NIFFT)
4. Dharmaraj Meena (Supervisor: Dr. Ratnakar Das, NIFFT)

**M.Tech. thesis supervised : 06****Publications in journal/proceeding:**

1. Azhar Equbal, Md. Israr Equbal, A.K. Sood, “PCA-based desirability method for dimensional improvement of part extruded by fused deposition modelling technology,” Progress in Additive Manufacturing <https://doi.org/10.1007/s4-00072-018-40964>.
2. Pruthwiraj Sahu, Sambit Kumar Parida and Sisir Mantry, Effect of agglomerated zirconia-toughened mullite on the mechanical properties of giant cane fiber mat epoxy laminated composites, Structural Engineering and Mechanics, Vol. 70, No. 2019) 2) DOI: <https://doi.org/10.12989/sem.2019.70.2.000>
3. Ranjan K. Behera, S. K. Parida & R. R. Das Effect of the aspect ratio of the pre-existing rectangular adhesion failure on the structural integrity of the adhesively bonded single lap joint, Journal of Adhesion Science and Technology, DOI: 01694243.2019.1629731/10.1080
4. Ranjan K. Behera, S. K. Parida & R. R. Das (2019) Three Dimensional Adhesion Failure Analysis of the Single Lap Joint having Pre-Embedded Circular Defects, Journal of Strain Analysis for Engineering Design, [sagepub.com/journals-permissions](https://sagepub.com/journals-permissions) DOI: 0309324719867002/10.1177 [journals.sagepub.com/home/sdj](https://journals.sagepub.com/home/sdj)

5. Optimization of Semi-solid forging parameters of A5-356TiB 2 in-situ composites using ANSYS and DEFORM Simulation, S. Deepak Kumar, D Karthik, S. K. Parida, S. K. Jha, Innovations in soft-computing and Information Technology, Springer nature, Singapore Pte Ltd,2019. DOI: [https://doi.org/25\\_5-3185-13-981-978/10.1007](https://doi.org/25_5-3185-13-981-978/10.1007)
6. Pradyut Kumar Swain, Ratnakar Das, Ashok Kumar Sahoo (2018), Machining study of Al-SiCp metal matrix nano composite developed by ultrasonic assisted casting process, International Journal of Mechanical Engineering and Technology (IJMET) Volume 9, Issue 10, October 2018, pp. 1492–1484. (Scopus)
7. Rita Kumari Sahu, Ratnakar Das, Bharat Chandra Routara (2018), Effect of die pockets on the extruded products in Multi-hole Extrusion Process: A finite element simulation study. IOP Conf. Series: Materials Science and Engineering 012020 (2018) 455 IOP Publishing doi:-1757/10.1088 899X/012020/1/455. (Scopus)
8. Umasankar Das, Ratnakar Das and Vijay Toppo (2018), Wear behaviour study of Friction Stir Welded Dissimilar Metals: AA-6101T6 and AA-6351T6 Aluminium Alloys, IOP Conf. Series: Materials Science and Engineering 012212 (2018) 377 doi:899-1757/10.1088X/012212/1/377. (Scopus)
9. U. Das, R. Das, V. Toppo and S. Muthukumaran (2018), Metallurgical Characterization and Hardness Evaluation of Dissimilar Friction Stir Welded Al Alloy Flat Plates, IOP Conf. Series: Materials Science and Engineering 012071 (2018) 455 IOP Publishing doi:-1757/10.1088 899X/012071/1/455. (Scopus)
10. Pradyut Kumar Swain, Ashok Kumar Sahoo, Ratnakar Das and Payodhar Padhi (2018) Development, characterization and machining of Al and SiCp nano particles metal matrix nano-composite, AIP Conf. Proc. 8-020057–1-020057 ,1930; <https://doi.org/1.5022951/10.1063>. (Scopus)
11. Pradyut Kumar Swain, Ashok Kumar Sahoo, Ratnakar Das and Payodhar Padhi (2018) Investigation, evaluation and analysis of SiCp nano particle metal matrix nano composite using a hybrid process, AIP Conference Proceedings 2018) 020056 ,1930); doi: 1.5022950/10.1063. (Scopus)
12. Pradyut Kumar Swain, Ratnakar Das, Ashok Kumar Sahoo, Bikash Naik, Payodhar Padhi (2018) Synthesis and characterization of Al & SiCp nano particles by non-contact ultrasonic assisted method, AIP Conference Proceedings 2018) 020019 ,1966); doi: 1.5038698/10.1063. (Scopus)
13. Rita Kumari Sahu, Ratnakar Das, B. C. Rourata (2019) Extrusion of circular billet through circular, triangular and square multi-hole die, International Journal of Engineering and Advanced Technology, 8 Issue - 6, August 2019. (Scopus)
14. U. Das, R. Das, V. Toppo and S. Muthukumaran “Experimental Study on Tensile and Bending Behavior of Friction Stir Welded Butt Joints of Dissimilar Aluminum Alloys” Materials Today: Proceedings 4723–4717 (2019) 18. (Scopus)

**International Conferences**

1. Rita Kumari Sahu, Ratnakar Das, B. C. Routara, "Finite Element Analysis Of Die Designs In Multi-Hole Extrusion Process" International Conference on Recent Innovations and Developments in Mechanical Engineering NIT Meghalaya, Shillong, India, November 2018 ,10 – 8 Paper No. IC-RIDME344 :18.
2. Umasankar Das, Ratnakar Das, V. Toppo, S. Muthukumaran, "Characterization of Friction Stir Welded Joints of AA-6101T6 and AA-6351T6 Aluminum Alloys" International Conference on Recent Innovations and Developments in Mechanical Engineering, NIT Meghalaya, Shillong, India, November 2018 ,10 – 8, Paper No. IC-RIDME219 :18.
3. Rajamohan, G. (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.

**National Conferences :**

1. T Sahoo, S Parida, S Mantry, R Sahoo, S Deepak, Thermo-Mechanical characterization of plasma Sprayed YSZCeO<sub>2</sub> Nano-Composite Coatings on Inconel substrates Asia Steel International Conference, Bhubaneswar, India, February 2018 ,9-6.
2. Saquib Bin Reyaz ,SambitParida, About the design, development of an automated SMAW setup and the weldment analysis in air and wet working environment, in the proceeding of ICAMME,2019, KIIT Bhubaneswar, India March 2019, 17-15.
3. PruthwirajSahu, Sambit Kumar Parida, Effect of cenosphere filler on the hardness and impact strength of wild cane fibre mat reinforced laminated composites, in the proceeding of ICAMME,2019, KIIT Bhubaneswar, India March 2019, 17-15.
4. Ranjan K. Behera, Nitin Sharma, S. K.Parida, Finite element analysis of buckling, free vibration and flexure of clamped laminated composite plates in variable thermal environment, International Conference on Recent Innovations and Developments in Mechanical Engineering NIT Meghalaya, Shillong, India, November 2018 ,10 – 8

**completed 1. NPTEL course (8 weeks) in 2019**

**completed 1 week GIAN course in 2019**

**Administrative responsibility**

Dr. A.K Sood:

- 1 Chairman, CCC
- 2 Chief Hostel Warden
- 3 Chairman, Disciplinary committee.

Dr. G.Rajamohan :

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

## DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING

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 in the mentioned activities. Some of the salient achievements are listed as follows:

### FACULTY :

1	<b>Dr. B. K. Chakrabarty</b> Ph.D. (IIT, Kharagpur)	Professor
2	<b>Dr. S. B. Kumar</b> Ph.D. (IIT, BHU, Varanasi)	Professor
3	<b>Dr. B. Kumar</b> Ph.D. (IIT, Kharagpur)	Professor
4	<b>Dr. D. Mukherjee</b> Ph.D. (University of Birmingham, UK)	Steel Chair Professor
5	<b>Dr. B. Mallik</b> Ph.D. (IIT, Kharagpur)	Associate Professor
6	<b>Dr. G. Das</b> Ph.D. (IIT, Mumbai)	Associate Professor & HOD
7	<b>Dr. D. Roy</b> Ph.D. (IIT, Kharagpur)	Assistant Professor
8	<b>Dr. C. Chattopadhyay</b> Ph.D. (IIT, Kanpur)	Assistant Professor
9	<b>Dr. R. K. Gupta</b> Ph.D. (Brown University, USA)	Assistant Professor
10	<b>Mr. K. Sikdar</b> M.Tech (IIT, Kanpur)	Assistant Professor

### Publications in Journal / Proceeding :

1. Nidhi Khobragade, Koushik Sikdar, Binod Kumar, Debdas Roy, "Effect of Annealing on Microstructure, Grain Growth and Hardness of Nanocrystalline Cu-Zr Alloy Prepared by Cryogenic Ball Milling". Journal Materials Science and Research, Vol. 7, No. 2018) 3).
2. B. Mallik, K. Sikdar, D.Roy, "Synthesis and Characterization of Aluminium Base in situ Metal Matrix Composites by Spark Plasma Sintering". Journal Materials Science and Research, Vol. 7, No. 2018) 1).



3. B. Mallik, K. Sikdar, D. Roy, "Tribology performance of in situ reinforced Al-based Metal Matrix Composite processed by Spark Plasma Sintering". *Materials Performance and Characterization*, Vol. 8 No. 71-62 (2019) 1.
4. Nidhi Khobragade, Koushik Sikdar, Binod Kumar, Supriya Bera, Debdas Roy, "Mechanical and Electrical properties of copper-graphene nanocomposite fabricated by high pressure torsion". *Journal of Alloys and Compounds*, 132-123 (2019) 776.
5. K. Sikdar, A. Mahata, B.Roy, D.Roy "Hybrid thermal stabilization of Zr doped nanocrystalline Cu" *Materials and Design* 107564 (2019) 164
6. Viranshu Kumar, Ratnesh Kumar Gupta, Ghanshyam Das, *IOP Conf. Series: Materials Science and Engineering*, -012038 (2019) 653doi:899-1757/10.1088X/012038/1/653.
7. Viranshu Kumar, Ratnesh Kumar Gupta, Ghanshyam Das, *Materials Today: Proceedings*, Peer-review under responsibility of the scientific committee of the 2nd International Conference on Materials Manufacturing and Modelling, 29-28 March, ICM MM – 2019, Accepted.
8. Viranshu Kumar, Ratnesh Kumar Gupta, Ghanshyam Das, *Challenges and Opportunities in Sustainable Development*" at IEL, Jharkhand state centre, Ranchi on 4-3, November, 2018.
9. Viranshu Kumar, Ratnesh Kumar Gupta, Ghanshyam Das, "Advances in structural materials for sustainable development" at NML Jamshedpur on 19-18, January 2019.

#### Ph.D. Awarded

Serial Number	Name of the candidate	Date	Name of the Supervisor
1	Mr. Somraj Chakravarty	5 <sup>th</sup> May 2018	Dr. D. Roy
2	Ms. Anumeha Mishra	14 <sup>th</sup> May 2018	Dr. D. Roy & Dr. S. B. Kumar
3	Mr. Banshidhar Mallik	1 <sup>st</sup> March 2019	Dr. D. Roy

#### Administrative:

1. Prof. B. Kumar served as a Dean P&D.
2. Dr. D. Roy served as an Associate Dean ADC, Hostel warden (NIRALA Chatrabas), Chairman Security Management Committee.
3. Dr. G. Das served as a HOD and Chairman Gymkhana Committee.

#### Achievement:

1. Dr. D. Roy has been elected as an Executive Member in Indian institute of Metals (Ranchi Chapter).

## DEPARTMENT OF APPLIED SCIENCES AND HUMANITIES

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. 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 fulfill 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.

### Name of faculty members with Degree and Designation

1	<b>Dr. S. R. Kumar</b> Ph. D. (Materials Science)	Professor & HoD
2	<b>Dr. Anil Kumar</b> M.Tech. (Surface Sc. and Engg.); Ph. D (Engg.) in Metallurgy and Materials Engineering	Associate Professor
3	<b>Ms. Sujata S. Gupta</b> , MA (English)	Assistant Professor
4	<b>Ms. Madhu Kumari</b> , B. Sc. Engg. (E & C), M.Tech. (IT)	Assistant Professor
5	<b>Dr. Partha Sarathi Mondal</b> , Ph. D (Physics)	Assistant Professor
6	<b>Dr. Vikash Kumar Gupta</b> M.Tech. (Electrical Engg.) & Ph.D. (Electrical Engineering)	Assistant Professor
7	<b>Dr. Subhankar Basu</b> M.Tech. (Environmental Engineering) Ph. D (Bioscience Engg.)	Assistant Professor

### ACTIVITIES

#### A. Academic Activities

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

**B. Offers Doctoral Programme.****C. Research and Development Activities****Doctoral Programme:**

1. Mr. Shashi Kant Rajpal has submitted his doctoral thesis on “Development of Nanocrystalline Semiconducting Thin Film for Device Applications.” in February 2019 from Ranchi University, Ranchi under the supervision of Dr. S.R. Kumar.
2. Ms. Sudeshna Surbhi is carrying out her doctoral programme under the supervision of Dr. S.R. Kumar. She is working on the topic entitled “Synthesis and Characterisation of CdTe Thin Film in Non Aqueous Medium.”
3. Mr. Kumar Anurag full time research scholar is carrying out his doctoral programme under the supervision of Dr. S.R. Kumar.
4. Mr. Deependra Kumar Sinha has submitted his doctoral thesis on “Development of ecofriendly geo polymer products based on steel industry slag, fly ash and bottom ash Thin Film for Device Applications.” in 2018 from Ranchi University, Ranchi under the supervision of Dr. Anil Kumar.
5. Mr. Altaf Ahmad has submitted his doctoral thesis on “Studies of Corrosion behavior of Rebar embedded in concrete and its prevention” in 2018 under the supervision of Dr. Anil Kumar.
6. Mr. Rohit Ghosh is carrying out his doctoral programme under the supervision of Dr. Anil Kumar (Co-supervisor).
7. Mr. J. P. Singh is carrying out his doctoral programme under the supervision of Dr. Anil Kumar (Co-supervisor).
8. Ms. Nimisha Singh is carrying out her doctoral program under co-supervision of Dr. Subhankar Basu at TERI University.

**M.Tech. Projects:****A. Environmental Engineering**

1. Mr. S. L. Abhijin, “Reuse of Township domestic wastewater for Industrial purpose” (2018), Dr. S.R. Kumar (Supervisor).
2. Mr. Sumit Kumar Jha, “Environmental Impact Assessment Report of Kandla Port” (2018), Dr. S.R. Kumar (Supervisor).
3. Mr. Abhishek Prasad, “Study and Analysis of Colour Removal of Textile effluent and coke oven by product plant” (2018), Dr. S.R. Kumar (Supervisor).
4. Mr. Anoop Kumar Sharma, “Water pollution study of Subarnrekha River” (2018), Dr. Anil Kumar (Supervisor).
5. Mr. Prem Kumar, “Removal of fluoride content using fly ash” (2018), Dr. Anil Kumar (Supervisor).
6. Mr. Tushar Kumar, “Correlation between soil’s physical properties and ground water availability

in the district Dhanbad, Jharkhand, India” (2018), Dr. Anil Kumar (Supervisor).

7. Mr. Rishabh Kumar Gupta, “Consequence analysis comparison for natural gas pipeline” (2018), Dr. Madhu Kumari (Supervisor).
8. Mr. Vinay Yadav, “Design of dust extraction type air pollution control system with energy efficient features” (2018), Dr. Madhu Kumari (Supervisor).
9. Mr. Navin Kumar, “Challenges of municipal solid waste management of Ranchi” (2018), Dr. Madhu Kumari (Supervisor).
10. Mr. Kumar Suraj, “Air quality impact prediction for an open cast mine”(2018), Dr. S. Basu (Supervisor).
11. Mr. Abhishek Kumar, “Assessment and management of air quality of Dhanbad township”(2018), Dr. S. Basu (Supervisor).
12. Mr. Jitu Prasad Ghosh, “Coated ceramic membranes for reduced fouling in sewage treatment”(2018), Dr. S. Basu (Supervisor).
13. Mr. Rakesh Kumar Nayak, “Operation of AnMBR equipped with ceramic membranes”(2018), Dr. S. Basu (Supervisor).

#### **B. Manufacturing and Materials Science Engineering:**

1. Mr. Alok Kumar Singh (Manufacturing Engineering), “Industrial waste utilization for making construction constituents & optimization of its strength” (2018), Dr. Anil Kumar (Supervisor).
2. Mr. Hrishiraj Mishra (Materials Science Engineering), “Development of Mullitenano-fibers by electro-spinning method” (2018), Dr. Partha Sarathi Mondal (Supervisor).
3. 16 Mr. Sumantra Chowdhury (Materials Science Engineering), “Development of KNN Piezoceramic wafer” (2018), Dr. Partha Sarathi Mondal (Supervisor).

#### **Publications in Journal:**

1. Shashikant Rajpal, S.R. Kumar, “Development of Electrodeposited ZnTe Thin Films in Non-aqueous Medium”, Journal of Nanoelectronics and Optoelectronics, 194-190 ,(2018) (2)13.
2. Shashikant Rajpal, S.R. Kumar, “Thermoluminescent Properties of nanocrystalline ZnTe thin films: Structural and Morphological studies”, Physica B:Condensed Matter, 149-145,(2018)534.
3. S. Kumar, S. Rajpal, S. K. Sharma,, D. Roy, S. R. Kumar, “Influence of Annealing on Structural and Optical Properties of CdS Thin Films Developed by Chemical Route”, Journal of Ovonic Research,191-185, (2018)(3)14.
4. Shashikant Rajpal, S.R.Kumar, “Effect of Mg Concentration on the Structural, Morphological and Optical Properties of Ternary ZnMgO Nanocrystalline Thin Films”, Innovation in Materials Science and Engineering J. Chattopadhyay et al. (eds.), Springer Nature Singapore Pte Ltd. 2019, <http://doi.org/20-2949-13-981-978/10.1007>.

5. Rachit Ghosh, Sunil Kumar Gupta, Anil Kumar and Sanjay Kumar, "Durability and Mechanical behaviour of Fly Ash- GGBFS Geopolymer concrete utilizing Bottom Ash as fine aggregate", Transactions of Indian ceramic society, 33-24 (2019) (1)78.
6. Altaf Ahmad, Ranveer Kumar and Anil Kumar, "Effect of sodium molybdate and sodium tungstate in concrete rebar corrosion " Anti- Corrosion Methods and Materials, 263-253 (2019) (3)63.
7. Prateek Kumar Sharma, J.P. Singh, and Anil Kumar, "Effect of particle size on its physical and mechanical properties of fly ash based geopolymers", Transactions of the Indian Institute of Metals, 1337-1323 (2019) (5)72.
8. J.P. Singh, Deependra Kumar Sinha, Sujeeet Kumar, Manish Kumar Jain & Anil Kumar, "ETP sludge as filler & the role of AOD slag & GBFS in Fly ash -slag-Sludge blended Geopolymer", MOJ Civil Engineering ,384-379 (2018)(5)4.
9. Prateek Kumar Sharma, Thomas C. Alex, Anil Kumar and MenkaBhasin, "Physical Characteristics of Fly ash based Geopolymers", Advance Science, Engineering and Medicine.
10. Rachit Ghosh, Sunil Kumar Gupta, Anil Kumar and Sanjay Kumar, "Leaching and Efflorescence effects in geopolymer concrete", Journal of Metallurgy and Materials Science, 88 -79 (2018)(2)60.
11. Rachit Ghosh, Sunil Kumar Gupta, Anil Kumar and Sanjay Kumar, "Replacement of conventional fine aggregate with bottom ash in geopolymer concrete", Journal of Metallurgy and Materials Science, 187-173(2018)(3)60.
12. Rachit Ghosh, Anil Kumar, S. K. Gupta, SarmishthaPalitSagar and Sanjay Kumar, "Estimation of geopolymer concrete Strength from ultrasonic pulse velocity (UPV) using high power pulser", Journal of Building Engineering, 44-39 (2018)16.
13. S. Kumar, J. N. Djobo, A. Kumar and S. Kumar, "Size fractionation of brown fly ash: Utilization of grey fraction as a pozzolanic material in blended cement ", European Journal of Environmental and Civil Engineering, (2018).
14. Madhu Kumari and Dr. P.K. Singh, Utilization of solar energy in India", International Journal of Advance Research in Science and Engg. ISSN (O) 8354-2319, Vol. 07(07) Jul 2018.
15. A. Kaushik, S. Basu, V.S. Batra, M. Balakrishnan, "Fractionation of sugarcane molasses distillery wastewater and evaluation of antioxidant and antimicrobial characteristics", Ind Crops Prod., 80-73 (2018) 118.
16. N. Singh, I. Petrinic, C. Hélix-Nielsen, S. Basu, M. Balakrishnan, "Concentrating molasses distillery wastewater using biomimetic forward osmosis (FO) membranes", Water Research, 280-271, (2018) 130.
17. S. Basu, S. Mukherjee, M. Balakrishnan, M. Deepthi, V.R.R.N. Sailaja, "Polysulfone/nanocomposites mixed matrix ultrafiltration membrane for the recovery of Maillard reaction products", Membr. Water Treat., 113-105 ,(2018) (2)9.
18. S. Kaushik, S. Basu, S. Raturi, V.S. Batra, M. Balakrishnan, "Recovery of antioxidants from sugarcane molasses distillery wastewater and its effect on biomethanation", J. Water. Process Engg., 211-205 ,(2018) 25.

**Paper Presented/Attended in Seminars/Symposia/Conferences**

1. J. Ghosh and S. Basu, Modification of Biomass ash based filters for sewage treatment, The 6<sup>th</sup> IWA Regional Membrane Technology Conference-IWA 2018, M. S. University, Baroda 12-10 Dec 2018.
2. N. Singh, S. Basu, M. Balakrishnan Laccase immobilized on acetone silanized alumina supports for industrial wastewater treatment. 6th International Conference on Ecotoxicology & Environmental Sciences (ICEES21-19 (2018- Feb, 2018, Netaji Subhas Inst. Technol., Delhi.
3. N. Singh, S. Basu, I. Petrinic, C. Helix-Nielsen, M. Balakrishnan, Melanoidins up-concentration using biomimetic forward osmosis (FO) membrane, International Conference on Water Resource Management 12-11 Jan 2018, CSIR-CGCRI, Kolkata.

**Invited Talk**

1. Dr. S. Basu on Nanomaterials for Environmental Applications, Two day Workshop on Recently Developed Materials (RDM24-23 ,(2018-Feb, 2018, B.A. College of Engg. Technol., Jamshedpur.
2. Dr. P.S. Mondal on "Oxide Thermoelectric Materials", Two day Workshop on Recently Developed Materials (RDM24-23 ,(2018-Feb, 2018, B.A. College of Engg. Technol., Jamshedpur.

**Research & Development**

Research grant from SERB-DST for 36 months, Title: Chitosan based thin active layer forward osmosis (FO) membrane for sewage up-concentration and resource recovery, 21.2 Lakhs, Dr. S. Basu.

**Reviewer 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

**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, NIRE, NABA 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



## 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.-2018, B.Tech. -2018 and ADC 2018 had been started on respective scheduled time.

As a mark of the excellence following students have been awarded Gold Medal by Ranchi University during the 31st CONVOCATION of the University.

SN	Name of the students	Course	Branch	Batch
1	Mr. Manoj Verma	M.Tech.	Material science & Engineering	2015-2017
2	Mr. Aamir Sohail	M.Tec.h	Foundry Forge Technology	2016-2018

### Admission -2018

#### 1. Ph.D. Programme

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

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

#### 2. M.Tech.

##### Admission through CCMT-2018

<u>Branch</u>	<u>No. of seats</u>	<u>No. of seats filled</u>
1. Manufacturing Engineering	28	25
2. Foundry-Forge Technology	28	25
3. Environmental Engineering	28	23
4. Material Science & Engineering	28	18



**3. B.Tech.****Admission through JoSSA/CSAB-2018**

<u>Branch</u>	<u>No. of seats</u>	<u>No. of seats filled</u>
1. Manufacturing Engineering	60	55
2. Metallurgy and Materials Engineering	60	59
4. ADC		

**Admission through written test conducted by the Institute.**

<u>Branch</u>	<u>No. of seats</u>	<u>No. of seats filled</u>
1. Foundry Technology	46	46
2. Forge Technology	46	45

**Students Passed out in 2018****1. M.Tech. (18-2016)**

<u>Branch</u>	<u>No. of students passed out</u>
1. Manufacturing Engineering	20
2. Foundry-Forge Technology	21
3. Environmental Engineering	13
4. Material Science & Engineering	15

**2. B.Tech. (18-2014)**

<u>Branch</u>	<u>No. of students passed out</u>
1. Manufacturing Engineering	65
2. Metallurgy and Materials Engineering	58

**3. 44th ADC**

<u>Branch</u>	<u>No. of students passed out</u>
1. Foundry Technology	45
2. Forge Technology	36

### M.Tech. Foundry-Forge Technology 2017-2019 Batch

Sl No.	Roll No	Name Of The Students	Project Topic	Project Supervisor/Co-Supervisor
1	FF17M01	Mr. Abhishek Kumar Pandey	Optimization Of Forging Process Parameters For Closed Die Forging Of Connecting Rod	Dr. Manoj Kumar
2	FF17M02	Mr. Anuj Anand	Optimization Of Hot Forging Process Parameters For Close Die Forging Of Stub Axle	Dr. Manoj Kumar
3	FF17M03	Mr. Devendra Pal	Effects Of Strontium On The Structure And Properties Of Aluminium-Silicon Alloys	Dr. Nandita Gupta
4	FF17M04	Mr. Amit Kumar	Fabrication And Deformation Behaviour Of Al-4.5 Cu/Sic Composites	Dr. P. Talukdar
5	FF17M05	Mr. Shanu C	Fabrication And Characterization Of Aluminium Metal Matrix Composite Fabricated Through Stir Casting	Mr. Vineet Chak
6	FF17M06	Mr. Perli Ravi Teja	Effect Of Copper On Structure- Properties Of Cast And Heat Treated Aluminium-Silicon Alloys	Dr. K.K. Singh
7	FF17M07	Mr. Kumar Ravi Raj	Fabrication Of Al-4.5 Cu/Sic Composites Through Powder Metallurgy	Dr. P. Talukdar
8	FF17M08	Mr. Yugal Kishor Sahu	Fabrication Of Aluminium Metal Matrix Composite Fabricated Through Liquid Forging	Mr. Vineet Chak
9	FF17M09	Mr. Kunal Kachhap	Optimum Die Design For Camshaft By Using Simulation Software	Dr. N.K. Singh
10	FF17M10	Mr. Vitin Singh	Compound Casting And Heat Treatment Of Aluminium/Steel Bimetal	Dr. K.K. Singh
11	FF17M11	Mr. Kapil Deo Kumar	Effect Of Non-Contact Ultrasonic Vibration On Microstructure And Mechanical Properties Of Al-Cu-Mg Alloy	Dr. Amitesh Kumar
12	FF17M13	Mr. Arjun Kumar Gupta	Study Of Structure And Properties Of Aluminium Alloys Using Slope Casting In Intregation With Ultrasonic Vibration	Dr. Amitesh Kumar
13	FF17M15	Mr. Abhishek Kumar Tarun	Forging Die Design Of Front Axle Beam By Using Simulation	Dr. N.K. Singh
14	FF17M16	Mr. Amit Kumar	A Study On Microstructure And Mechanical Properties By Alloying Molybdenum And Silicon In Grey Cast Iron	Dr. A.K. Singh

15	FF17M17	Mr. Shekhar Kumar	Study Of Mechanical And Metallurgical Properties By Alloying Of Copper And Chromium	Dr. A.K. Singh
16	FF17M18	Mr. Sandeep Chaurasiya	Forging Design And Simulation Of Cam And Follower	Dr. R.K. Ohdar
17	FF17M19	Mr. Amit Kumar	A Study On Microstructure And Mechanical Properties By Alloying Chromium And Vanadium In Mild Steel	Dr. A.K. Singh
18	FF17M20	Mr. Rohan Kumar	Effect Of Alloying Element To Improve Thermal Conductivity Of Grey And Spheroidal Graphite Iron	Dr. A.K. Pramanick
19	FF17M21	Mr. Bijay Paul	Forging Die Design And Simulation Of Multi Throw Crank Shaft For V6 Engine	Dr. R.K. Ohdar
20	FF17M22	Mr. Arun Kumar	Effect Of Copper On Structure-Properties Of Cast And Heat Treated Ductile Iron	Dr. K.K. Singh
21	FF17M23	Mr. Saurabh Kumar	Effect Of Gating Design On Mould Filling And Mechanical Properties Of Al-Si Alloy	Dr. Nandita Gupta
22	FF17M24	Mr. Sumit Ranjan Sinha	Root Causes Analysis Of Crack In High Steel Cast Mining Shroud	Dr. A.K. Pramanick
23	FF17M25	Mr. T Lachana Dora	Die Design Optimization And Stress Analysis Of Stub Axle By Simulation	Dr. N.K. Singh
24	FF17M26	Mr. Kumar Karuna Nidhi	Effect Of Artificial Cooling On Metallurgical Properties Of Al-Si-Mg Casting In Permanent Mold	Dr. Nandita Gupta

### M.Tech. Manufacturing Engineering 2017-2019 Batch

Sl No.	Roll No	Name Of The Students	Project Topic	Project Supervisor/Co-Supervisor
1	ME17M01	Mr. Prabhakar Kumar Singh	Optimization Of Design Parameters Of Casting Die Using Simulation	Dr. Sanjay Kumar
2	ME17M02	Mr. Alok Kumar Shukla	Solidification Simulation Of Flywheel Casting By Using Procast Software	Dr. Sanjay Kumar
3	ME17M03	Mr. Amar Kumar	Machinability Study Of Aa 6351- Aluminium-T6	Dr. Ratnakar Das
4	ME17M04	Mr. Vishesh Kumar Gautam	Machinability Study Of Aisi 4340 Steel	Dr. Ratnakar Das
5	ME17M05	Mr. Ashish Narayan	A Studt Of Mechanical Behaviour Of Aluminium Alloy Composite Reinforced With Silicon Carbide And Fly Ash	Dr. Vijay Toppo
6	ME17M06	Mr. Ajeet Kumar Singh	Die Design Parameter Optimization And Stress Analysis Of A Lever	Dr. A. Mondal
7	ME17M07	Mr. Amit Kumar	Fabrication And Characterization Of Al/Sic And Fly Ash Composite By Ultrasonic Casting Technique	Mr. S.K. Soren
8	ME17M08	Mr. Akash Jaiswal	Experimental Study On Fixturing, Clamping And Tool Guide In Drilling Of Wood/Bio-Composites	Dr. Ratnakar Das
9	ME17M09	Md Azizur Rahman	Risk Analysis Using Failure Mode Effect Analysis (Fmea) On Forging Die Design	Dr. V.M.S. Hussain
10	ME17M10	Mr. Sajan Kumar	A Study And Analysis Of Mechanical Properties Of Tio <sub>2</sub> Nanoparticles Reinforced Aluminium Composite By Ultrasonic Casting Technique	Mr. S.K. Soren
11	ME17M12	Mr. Nitin Kumar	Influence Of Laser Power, Scanning Pattern And Scanning Velocity On Peak Temperature In Powder Bed Fusion Process.	Dr. A.K. Sood
12	ME17M14	Mr. Abhishek Pal	A Study Of Mechanical Behaviour Of Aluminium Alloy 6061 Reinforced With Alumina/Rice Husk Ash Particles Synthesized By Stir Casting	Dr. Vijay Toppo
13	ME17M15	Mr. Atul Balmiki	Finite Element Study On Multi-Hole Extrusion-Forging Process To Produce Micro Metallic Component	Dr. Ratnakar Das
14	ME17M16	Mr. Suraj Verma	Evaluation Of Flatness Error In End- Milled Surfaces	Dr. G. Rajamohan

15	ME17M18	Mr. Deepak Kumar	3-D Finite Element Analysis Of Adhesive Failure In Single Lap Joint	Dr. S.K. Parida
16	ME17M19	Mr. Mayank Pandey	Experimental Investigation Of Effect Of Argon And Argon + Hydrogen As A Shielding Gas In Mig Welding Of Austenitic Stainless Steel	Dr. Ratnakar Das
17	ME17M20	Mr. Amiya Ranjan Patra	Study On The Influence Of Process Parameters On The Melt Pool Dimension And Temperature In The Melt Pool For Laser Powder Bed Fusion Process	Dr. A.K. Sood
18	ME17M21	Ms. Joyita Sarkar	Characterization And Wear Behaviour Of Boron-Rich Developed Hardfacing Electrode	Dr. A.K. Pramanick
19	ME17M22	Mr. Sangeeth Purushothaman	On-Machine Verification Of Geometric Tolerances On A Five Axis Cnc Machining Centre	Dr. G. Rajamohan
20	ME17M23	Mr. Nikhil	Evaluation Of Microstructure And Mechanical Properties Of Al-Si Alloy Of Semi Solid Casting Using Cooling Slope	Dr. S.K. Parida
21	ME17M24	Mr. Gaurav Parmar	A Study Of Mechanical Properties Of Mig And Tig Welded Dissimilar Joints Of Mild Steel And 304 Austenitic Stainless Steel	Dr. A. K. Pathak
22	ME17M26	Mr. Vivekanand Kumar	Performance Evaluation Of Trucking Industry: A Truck Drivers Perspective	Dr. V.M.S. Hussain

### M.Tech. Materials Science Engineering 2017-2019 Batch

Sl No.	Roll No	Name Of The Students	Project Topic	Project Supervisor/Co-Supervisor
1	MM17M01	Mr. Vinit Kumar Singh	Evaluation Of Mechanical Properties Of Dissimilar Welded Joints Of Austenitic Stainless Steel (Aisi 304L) And Ferritic Stainless Steel (Aisi 430)	Dr. Binod Kumar
2	MM17M02	Mr. Abhay Kumar	Selection Of Shielding Gas For Mig Welded Dissimilar Joints Of Austenitic Stainless Steel (Aisi 304L) And Ferritic Stainless Steel (Aisi 430)	Dr. Binod Kumar
3	MM17M03	Mr. Abhishek Kumar Singh	Microstructural Characterisation Of Nanostructured Cu-Al Alloy By X-Ray Diffraction Profile Analysis	Mr. Koushik Sikdar
4	MM17M04	Mr. Anruddha Patel	Study Of Ultrasonic Behaviour Of Mild Steel	Dr. B. Mallik
5	MM17M05	Mr. Vishal Kumar	Study Of Mechanical Behaviour Of Duralumin	Dr. B. Mallik
6	MM17M06	Mr. Umakant	Graphene Nanocomposite Coating On Aluminium Substrate Against Degradation	Dr. Ghanshyam Das
7	MM17M08	Mr. Ajay Kumar Singh	Effect Of Heat Treatment On Microstructure And Corrosion Behaviour Of 2205 Super Duplex Stainless Steel	Dr. R.K. Gupta
8	MM17M09	Mr. Nitish Kumar	Study Of Mechanical Propertise Of Aluminium Based Metal Matrix Composites (Ammc)	Dr. B. Mallik
9	MM17M10	Mr. Ankit Kiran	Microstructural Characterization Of Nanostructured Cu-0.5% Nb Alloy By Xrd Profile Analysis	Mr. Koushik Sikdar
10	MM17M11	Ms. Katkar Tanvi Sudhakar	Heat Treatment Behaviour Of Aisi 430 Ferritic Stainless Steel Weld Joints	Dr. Binod Kumar
11	MM17M12	Mr. Gaurav Nidhi Pandey	Corrosion Study Of Magnesium Alloy Mg AZ91 Used In Aerospace And Automotive Industry	Dr. Ghanshyam Das
12	MM17M13	Mr. Rahul Kumar Singh	Corrosion Study Of Al 7075-T6 In 3.5% Nacl Solution	Dr. Ghanshyam Das
13	MM17M14	Mr. Brajesh Kumar	Development Of Nickel-Copper Alloy Coating On Metal Substrate By Electro-Deposition	Dr. Debdas Roy
14	MM17M16	Mr. Rakesh Roshan	Evaluation Of Weldability Of 700 Mc Steel Using Mig & Pulsed Mig Welding	Dr. Debdas Roy
15	MM17M17	Mr. Atul Kumar Yadav	Graphene Coating On Steel Substrate And Its Corrosion Performance	Dr. Ghanshyam Das
16	MM17M18	Mr. Abhinav Krishna	Effect Of Heat Treatment On Microstructure And Corrosion Behavior Of F55 (Usn S32760) Super Duplex Stainless Steel	Dr. R.K. Gupta
17	MM17M19	Mr. Sumit Kumar	Structure-Propertise Co-Relationship Of Laser Welded Dual Phase Steel Joints	Dr. Debdas Roy
18	MM17M20	Mr. Udit Kumar	Effect Of Heat Treatment On Microstructure And Corrosion Behavior Of 2507 Super Duplex Stainless Steel	Dr. R.K. Gupta

### M.Tech. Environmental Engineering 2017-2019 Batch

Sl No.	Roll No	Name Of The Students	Project Topic	Project Supervisor/Co-Supervisor
1	AS17M01	Mr. Jatin Yadav	Water Treatment Of Swarnarekha River Using Moringa Oleifera A Natural Coagulant	Dr. S.R. Kumar
2	AS17M02	Mr. Apurva Tilak	Study Of Water Quality Variation Of Subarnarekha River During Monsoon, Post-Monsoon And Pre-Monsoon Around Ranchi	Dr. S.R. Kumar
3	AS17M05	Ms. Sonali Choudhury	Recovery Of Protein And Carbohydrate From Dairy Wastewater Using Two Stage Uf-Fo System	Dr. S. Basu
4	AS17M07	Mr. Rishi Shandilya	Quality Assessment Of Surface Water Resources Of Seraikela Kharsawan District Of Jharkhand	Dr. Anil Kumar
5	AS17M08	Mr. Sushil Maini	Groundwater Quality Assessment Of Seraikela Kharsawan District Of Jharkhand	Dr. Anil Kumar
6	AS17M09	Md Layakat Ansari	A Comparative Study Of Waste Water Quality At Different Areas In Ranchi	Mrs. Madhu Kumari
7	AS17M11	Mr. Ananda Mandal	Removal Capacity Of Organic-Dye In Water By Fuller's Earth And It's Composite	Dr. P.S. Mondal
8	AS17M12	Mr. Ambesh Raman	Solar Distillation Of Water For Rural Household In India	Mrs. Madhu Kumari
9	AS17M13	Mr. Manish Kumar	Assessment Of Groundwater Quality Of Ranchi Township Area, Jharkhand, India, Using Water Quality Index Method	Mrs. Madhu Kumari
10	AS17M14	Md Abdul Hakim Rabbani	Designing Of Filter, Filtration Of Water Using Uv Filter And Removeal Of Hardness By Salfonated Polystyrene	Dr. S.R. Kumar
11	AS17M18	Mr. Himanshu Ankit	Study Of Treatment Of Dairy Wastewater Using Membrane Bioreactor And Reverse Osmosis	Dr. S. Basu
12	AS17M19	Mr. Debasish Pal	Properties Investigation Of Fly Ash And Ggbfs Based Geopolymer And Concrete Products	Dr. Anil Kumar
13	AS17M21	Mr. Mrinal Kanti Dolai	Development Of Heterogeneous Adsorbent For Removal Of Arsenic Ion From Simulated Water	Dr. V.K. Gupta
14	AS17M22	Mr. Abhishek Kumar	Assessment Of Groundwater Quality With Special Reference To Fluoride Of Tupudana, Hatia, Region Of Ranchi-Jharkhand	Dr. V.K. Gupta

15	AS17M23	Mr. Umesh Kumar Singh	Electro-Spun Nanofiber Membrane For Water Filtration Application	Dr. P.S. Mondal
16	AS17M24	Mr. Shubhankar Hira	Assessment Of Ground Water Quality In And Around Hec Township	Dr. P.S. Mondal
17	AS17M25	Mr. Suman Nayak	To Find The Statistical Co-Relation Between Bio-Chemical Oxygen Demand & Chemical Oxygen Demand Parameters For A Sewage Treatment Plant Situated At Shyamali, Ranchi	Dr. P.S. Mondal
18	AS15M08	Mr. Kumar Anshuman	Assessment Of Bio-Toilets Trains Passing Through Mughalsarai Station	Dr. Anil Kumar
19	AS15M16	Mr. Shambhu Nath Sharma	Treatment Of Municipal Solid Waste By Organic Composting	Mrs. Madhu Kumari



### B.Tech. Manufacturing Engineering (2015-2019 Batch)

SI No.	Roll No	Name of Student	CGPA	Title of the Project	Guide Name
1	05/15	Prakash Kumar	7.58	Lean Manufacturing strategies adopted by indian industries	Mr. A. M. Murmu
	10/15	Taiyab Ali	7.27		
2	16/15	Md. Janisar Alam	7.09	Energy management in Manufacturing Industries.	Dr. Madhu Kumari
	40/15	Mr. Vikash Kumar Singh	6.6		
3	59/15	Mr. Kishan Bharti	6.63	Forging Die Design and Simulation of Automotive Part. Coupling Flange	Dr. Manoj Kumar
	24/15	Mr. Satya Prakash Arya	8.15		
4	12/15	Mr. Ashhar Parwez	7.9	Implementation of JIT in a Supply Chain	Mr. S.K. Soren
	18/15	Mr. Gaurav Kumar	7.2		
5	44/15	Mr. Kishlay Kishore	6.84	Application of Six Sigma Method in Manufacturing Industry	Mr. S.K. Soren
	35/15	Mr. Krishna Kumar	7.81		
6	07/15	Mr. Santan Kumar Jha	8.58	Forging Die Design and Simulation of Automotive Yoke	Dr. Manoj Kumar
	28/15	Mr. Manu Adarsh	7.04		
7	41/15	Mr. Nikhil Kumar	7.5	Supply Chain Management in Automotive Industry.	Dr. R. K. Ohdar
	43/15	Mr. Amit Kumar	7.7		
8	33/14	Mr. Niraj Kumar	6.20	A Three Dimensional Finite Element Analysis of Temperature Field During Laser Welding	Mr. A.M. Murmu
	51/14	Mr. Manish Kumar	6.32		
9	20/15	Ms. Ayushi	6.5	A Study on Ultrasonic Casting	Mr. S. K. Soren
	22/15	Ms. Anoushka Sinha	7.84		
10	38/15	Mr. Shivam Agarwal	6.96	Simulation of Grey Cast Iron Casting & its Experimental Validation	Dr. Amitesh Kumar
	39/15	Mr. Aman Kumar	6.1		
11	33/15	Mr. Rahul Ranjan	6.7	Optimization of Design Criteria of Pitman Arm	Dr. N.K. Singh
	09/15	Mr. Diwakar Kumar	6.7		
12	54/15	Mr. Rohit Topno	6.56	Effect of D.C. Current on the Morphology of Ductile Iron	Dr. Amitesh Kumar
	30/15	Mr. Rajnish Kumar	6.52		
13	37/15	Mr. Gangadhar Kumar	7.38	Study of Effect of Direct Current in Grey Cast Iron	Dr. Amitesh Kumar
	61/15	Mr. Shyam Sundar Xalxo	6.49		
14	56/15	Mr. Deepak Rajak	6.17	Experimental Study of Defects in Centrifugal Casting & Their Solutions	Dr. Amitesh Kumar
	34/15	Mr. Ankit Kumar	8.46		
15	56/13	Mr. Mukesh Kumar	5.6	Effect of Copper in Gray Cast Iron	Dr. Amitesh Kumar
	42/14	Mr. Sudarshan Kumar	6.4		
16	14/15	Mr. Rajesh Kumar	7.2	Study of supply chain management practices adopted by tata steel & Sail	Mr. A. M. Murmu
	11/15	Mr. Anup Kumar	6.96		

17	21/15	Mr. Kanhaiya Kumar Singh	6.65	Energy Conservation in Manufacturing Industry	Dr. Madhu Kumari
	53/15	Mr. Sonu Kr. Paswan	6.67		
18	71/14	Ms. Ragini Deogam	5.96	Study of Austempered Ductile Iron	Dr. Madhu Kumari
	26/15	Mr. Praveen Kumar Mehta	6.7		
19	02/15	Mr. Dinkar Anand	8.02	Six Sigma Application in Forging Process Optimisation	Dr. R. K. Ohdar
	36/15	Mr. Kaushlendra Kumar	7.82		
20	03/15	Mr. Shivam Dubey	7.73	Single Axis Solar Tracking System	Dr. Madhu Kumari
	06/15	Mr. Anup Kumar Chouhan	6.69		
21	04/15	Mr. Abhay Pratap Singh	6.89	Design and Development of Paper Bag Making Machine	Dr. Ratanakar Das
	47/15	Mr. Gulabchand Kumar	6.31		
22	08/15	Shahan Ahmad Khan	6.25	Consumer Behaviour in Marketing	Dr. S.S. Gupta
23	49/15	Mr. Ashish Barman		Circular Economy	Dr. S. S. Gupta
	57/15	Mr. Mittagadapala Srikanth			
24	52/15	Mr. Bitla Shiva Kumar		Consumer Behaviour	Dr. S. S. Gupta
	62/15	Mr. Bhukya Basu			
25	13/15	Md. Shahbaj Ansari	8.4	Study of inflecone factors & operational strategies for energy efficiency improvement of CNC Machining.	Mr. A.M. Murmu
	60/15	Mr. Sameer Murmu			
26	15/15	Ms. Nidhi Kumari	7.99	Die Design of connecting rod	Dr. N. K. Singh
	25/15	Mr. Amit Kumar	7.6		
27	27/15	Mr. Amar Kumar Pandey	7.5	Die Design and Optimization of Pitmanam Arm Forging	Dr. N. K. Singh
	17/15	Mr. Mayank Raj	8.27		
28	48/15	Ms. Mylapalli Bhulakshmi	6.7	Study on Ultrasonic Welding	Mr. S. K. Soren
	51/15	Ms. Edla Anusha	6.75		
29	31/15	Mr. Anmol Gaurav	6.52	Design & Analysis of Connecting Rod with Different Cross-Selection using Catia-V5 and Ansys	Dr. A. K. Sood
	46/15	Mr. Kumar Shivam	6.9		
30	16/14	Mr. Ritesh Kumar	6.3	Supply Chain Management in Manufacturing Companies	Dr. Madhu Kumari
	42/15	Mr. Sonu Kumar	6.69		
31	45/15	Mr. Aman Verma	6.5	Use of Quality circle in Indian industry	Mr. A. M. Murmu
32	66/14	Mr. Kundan Kumar Paswan	5.87	Latest Advancement in the UT Technique for the Defect Analysis	Dr. Madhu Kumari
	32/15	Mr. Aakash Gaurav			
33	19/15	Mr. Kamal Nayan Keshav	6.99	Scope and use of Renewable Energy Sources in Indian Industries	Dr. Vikash Kumar Gupta
	29/15	Mr. Sourabh Kumar	6.83		

### B.Tech. Metallurgy & Materials Engineering (2015-2019 Batch)

SI No.	Roll No	Name of Student	CGPA	Title of the Project	Guide Name
1	82/15	Mr. Satyam Kumar Shukla	8.6	Optimization of process parameters for dissimilar weld joints (430/304L) prepared by Mig process.	Dr. Binod Kumar
	85/15	Mr. Amit Kumar Tiwari	8.2		
2	87/15	Mr. Sayantan Mukherjee		Deformation and Corrosion Resistance Properties of AZ <sub>31</sub> Mg - alloy.	Dr. G. Das
	94/15	Mr. Sarath S. P.			
3	96/15	Ms. Sandhya Bharti	8.27	Effect of heat treatment on corrosion behavior of 304 steel	Dr. R.K. Gupta
	120/15	Ms. Anchal Snehita Barla	7.89		
4	83/15	Mr. Prasenjit Sarangi	7.47	Effect of Heat Treatment on Corrosion Properties of 304L Stainless Steel	Dr. R.K. Gupta
	98/15	Mr. Ajeet Kumar	6.5		
5	100/15	Mr. Saddam Hussain		Effect of Heat Treatment on Microstructure and Corrosion Behavior of 2205 Duplex Stainless Steel	Dr. R.K. Gupta
	103/15	Mr. Shreshth Anand	6.8		
6	102/15	Mr. Anand Prasad	7.1	Effect of Ferrosilicon on S.G. Iron (AD Iron)	Dr. B. Mallick
	119/15	Mr. Prashant Kumar	6.9		
7	84/15	Mr. Dhananjay Singh	7.92	Study of Deformation and Corrosion Resistance Properties of Aluminium alloy	Dr. G. Das
	107/15	Mr. Tapan Gorai	7.04		
8	66/15	Mr. Kanhaiya Kumar	8.1	Cryogenic Deformation Behavior Study of FCC Metal Using Molecular Dynamics Simulation	Prof. P.P. Chattopadhyay
	71/15	Mr. Ranesh Kumar Saha	8.35		
9	74/15	Mr. Lakshya Chauhan	8.75	Effect of Environmental Parameters on Corrosion of Aluminium Alloy-2024	Dr. G. Das
10	77/15	Mr. Abhineet Kumar	8.83	Stress Corrosion Cracking of X80 Pipeline Steel Under Various Co <sub>2</sub> Concentration	Dr. G.Das
	123/15	Mr. Shyamal Kumar Hembram	6.75		
11	76/15	Mr. Abhishek Tomer	8.98	Tungsten Dispersed copper based composite	Dr. D. Roy
	101/15	Mr. Surbhi Gupta	8.83		
12	111/15	Ms. P. Rajeshwari	8.04	Study on Aluminium Based In-Situ Metal Matrix Composites	Dr. D. Roy
	115/15	Ms. N. Rajyalakshmi	7.27		
13	79/15	Ms. Anupama Shukla	9.02	Nano Tungsten Dispersed Copper Alloy Processed by Spark Plasma Sintering	Dr. D. Roy
14	104/15	Ms. Priya Sinha		Development of Copper-Graphene composite for electrical applications	Dr. D. Roy
	90/15	Ms. Shilpa Raj			
15	109/15	Mr. Rajesh Yadav	7.96	Effect of Heat Treatment on Corrosion Behavior of 316 LN Stainless Steel	Dr. R.K. Gupta
	69/15	Mr. Anish Kumar Pathak			

16	89/15	Ms. Nishat Anjum	8.98	Effect of Different Forging Processes on Microstructure Evolution for Low Alloy Steel	Dr. Manoj Kumar
	95/15	Ms. Soumya Sinha	8.76		
17	112/14	Mr. Rakesh Kumar	6.56	Effect of silicon on structure properties of Aluminium- Silicon alloys.	Dr. K. K. Singh
	114/13	Mr. Divyanshu Bharti	6.02		
18	72/15	Mr. Mahendra Kumar	9.29	Effect of Shielding Gas Composition on Dissimilar Weld Joints (430/340L) Prepared by Mig Welding Process	Dr. Binod Kumar
	105/15	Mr. Amrendra Verma	7.38		
19	99/15	Mr. V. Sai Nikesh	7.28	Importance and Emergency of Circular Economy	Mrs. S.S. Gupta
	124/15	Mr. Gauram Tigga	6.61		
20	65/15	Mr. Shanu Sinha	8.87	Aluminium Nickel Alloy	Mr. Kaushik Sikdar
	75/15	Mr. Saurav Kumar	7.84		
21	67/15	Mr. K. Sai Krishna	7.92	Multiaxial Forging of Pure Magnesium	Mr. Kaushik Sikdar
	68/15	Mr. Akshat Godha	8.2		
22	70/15	Mr. Himanshu S. Dwivedi	7.38	Optimization of Gating & Riser Design Through Simulation Technique	Dr. K.K. Singh
	91/15	Mr. Himanshu Verma	7.88		
23	92/15	Mr. Vaibhav Malik	8.11	High Strength Aluminium Alloys	Mr. Kaushik Sikdar
	106/15	Mr. Niraj Raj	8.76		
24	81/15	Mr. Rupesh Kumar	7.46	Graphene Doping	Mr. Kaushik Sikdar
	86/15	Mr. Aniket Srivastava	7.9		
25	110/15	Mr. Abhishek Anand	7.58	Determination and corrosion resistance behavior of aluminium alloy	Dr. G. Das
	94/13	Mr. Sharvan Kumar	5.58		
26	97/15	Mr. Prakash Godara	7.87	Study of Solidification Behavior of Grey Cast Iron	Dr. K.K. Singh
	88/15	Mr. Ramniwas Chotiya	7.31		
27	113/15	Mr. G. Raj Kumar	7.21	Study of Mechanical Properties of Al-alloy Produced by Stir Casting Technique	Dr. . B. Mallik
	73/15	Mr. S. Saikumar	7.51		
28	116/15	Mr. Gurrela Lokesh		Corrosion Study of Titanium as a Biomaterial for Implants	Dr. G. Das
	117/15	Mr. Bankapalli Ganesh			
29	80/15	Mr. Kumar Sourav	8.27	Synthesis and characterisation of precipitation hardened 2024 Aluminium alloy	Dr. K.K. Singh
	108/15	Ms. Sneha Kumari	8.06		
30	78/15	Mr. Rishabh Raj Kumar	7.85	Motivation Change with Generation	Mrs. S.S. Gupta
31	105/14	Mr. Adarash Raj	6.28	Ultrasonic Testing and Evaluation of SG Iron	Dr. B. Mallik

### B.Tech. Metallurgy & Materials Engineering (2015-2019 Batch)

Sl. No.	Roll No.	Name of Students	Title of the Seminar	Guide Name
1	065/15	Mr. Shanu Sinha	Development of High Temperature Aluminium Alloys	Mr. Kausik Sikdar
2	066/15	Mr. Kanhaiya Kumar	Recent Advancement on dye Penetrant Inspection	Mr. B. Mallik
3	067/15	Mr. Kalagarla Sai Krishna	Multiaxial Forging of Pure Magnesium	Mr. Kausik Sikdar
4	068/15	Mr. Akshat Godha	Multiaxial Forging of Pure Magnesium	Mr. Kausik Sikdar
5	069/15	Mr. Anish Kumar Pathak	Value extraction (mill scale) in Iron & steel industry	Dr. R.K. Gupta
6	070/15	Mr. Himanshu Shekhar Dwivedi	Development in light metal alloys for aerospace industry	Dr. K.K. Singh
7	071/15	Mr. Ranesh Kumar Saha	Corrosion and surface treatment of Mg alloys for automobile industry	Dr. G. Das
8	072/15	Mr. Mahendra Kumar	Physical and high temperature characterisation of raw materials of blast furnace	Dr. Binod Kumar
9	073/15	Mr. Sriram Sai Kumar	Reducing rejection rate of castings using simulation model	Mr. B. Mallik
10	074/15	Mr. Lakshya Chauhan	High Strength hot rolled microalloyed steel for LPG gas cylinder	Dr. G. Das
11	075/15	Mr. Saurav Kumar	Hot Rolling Surface Defect	Mr. Kausik Sikdar
12	076/15	Mr. Abhishek Tomer	Development of carbide free nanostructured bainitic steel and its future application	Dr. D. Roy
13	077/15	Mr. Abhineet Kumar	Study of nano coatings on steel substrate	Dr. G. Das
14	078/15	Mr. Rishabh Raj Kumar	Motivation Change with Generation	Mrs. S.S. Gupta
15	079/15	Ms. Anupama Shukla	Studies on titanium based alloys for biomedical application	Dr. D. Roy
16	080/15	Mr. Kumar Sourav	Development in application of aluminium alloys for automobile industry	Dr. K.K. Singh
17	081/15	Mr. Rupesh Kumar	Thin Slab Casting and Rolling Mill	Mr. Kausik Sikdar
18	082/15	Mr. Satyam Kumar Shukla	Hydrogen storage alloys	Dr. Binod Kumar
19	083/15	Mr. Prasenjit Sarangi	Function and working of blast furnace	Dr. R.K. Gupta
20	084/15	Mr. Dhananjay Singh	Utilisation of Iron ore fines: Technical options and challenges	Dr. G. Das
21	085/15	Mr. Amit Kumar Tiwari	Structure property correlation in HSLA steels	Dr. Binod Kumar
22	086/15	Mr. Aniket Srivastava	Hot Strip Mill	Mr. Kausik Sikdar

23	087/15	Mr. Sayantan Mukherjee	Process for manufacturing of tubes (Telescopic fork front tube)	Dr. G. Das
24	088/15	Mr. Ramniwas Chotiya	Development in secondary steel making	Dr. K.K. Singh
25	089/15	Ms. Nishat Anjum	Study of hot rolled sheet metal during blanking operation	Dr. Manoj Kumar
26	090/15	Ms. Shilpa Raj	Studies on bioceramics for biomedical application	Dr. D. Roy
27	091/15	Mr. Himanshu Verma	Development in micro alloyed steels	Dr. K.K. Singh
28	092/15	Mr. Vaibhav Malik	Ceramic Ball Bearing	Mr. Kausik Sikdar
29	094/15	Mr. S.P. Sarath	Study corrosion resistance properties of Titan 31 alloys	Dr. G. Das
30	095/15	Ms. Soumya Sinha	Study of hot rolled sheet metal during forming operations	Dr. Manoj Kumar
31	096/15	Ms. Sandhya Bharti	Steel rebars with modified technology of thermo mechanical treatment (TMT)	Dr. R.K. Gupta
32	097/15	Mr. Prakash Godara	Development and application of high Mn steel casting	Dr. K.K. Singh
33	098/15	Mr. Ajeet Kumar	Agglomeration of sprange Iron fines	Dr. R.K. Gupta
34	099/15	Mr. Vicharapu Sai Nikesh	Hydrides in Zirconium and Its Importance in Nuclear Fuel Tube	Mrs. S.S. Gupta
35	100/15	Md Saddam Hussain	Function and working of DRI	Dr. R.K. Gupta
36	101/15	Ms. Surbhi Gupta	Improvement of toughness of high cr white cast iron	Dr. D. Roy
37	102/15	Mr. Anand Prasad	Application of Al-based in sifu nano composite	Mr. B. Mallik
38	103/15	Mr. Shreshth Anand	Purification of steel in RH vessel	Dr. R.K. Gupta
39	104/15	Ms. Priya Sinha	Studies on Magnesium Alloy for Automobiles or Aviation Application Industries	Dr. D. Roy
40	105/15	Mr. Amrendra Verma	Effect of controlled rolling on the hardenability of dual phase steel	Dr. Binod Kumar
41	106/15	Mr. Niraj Raj	X-Ray Fluorescence	Mr. Kausik Sikdar
42	107/15	Mr. Tapan Gorai	Corrosion performance of automative sheet steels.	Dr. G. Das
43	108/15	Ms. Sneha Kumari	Development in recovery of vanadium and gallium from the red mud	Dr. K.K. Singh
44	109/15	Mr. Rajesh Yadav	Study of effect of MgO on viscosity of blast furnace slag	Dr. R.K. Gupta
45	110/15	Mr. Abhishek Anand	Analysis of defects present in the casting products	Dr. G. Das
46	111/15	Ms. Penjarla Rajeshwari	TRIP steels: an advanced steel for light weight automotive parts	Dr. D. Roy
47	113/15	Mr. Guthala Rajkumar	Preparation of al-based metal matix composites	Mr. B. Mallik

48	115/15	Ms. Nallapati Rajya Lakshmi	Novel Ultra High Strength Marging Steel	Dr. D. Roy
49	116/15	Mr. Gurrala Lokesh	Comparative study of bio compitable materials in human body	Dr. G. Das
50	117/15	Mr. Bankapaali Ganesh	Inplant biomaterials: A comprehensive review	Dr. G. Das
51	119/15	Mr. Prashant Kumar	Properties of Al-based situ nano composite	Mr. B. Mallik
52	120/15	Ms. Anchal Snehita Barla	Heat Treatment of Cast Iron	Dr. R.K. Gupta
53	123/15	Mr. Shyamal Kumar Hembram	Study of aluminium based nano materials	Dr. G. Das
54	124/15	Mr. Gautam Tigga	The emergence and importance of circular economy	Mrs. S.S. Gupta
55	105/14	Mr. Adarash Raj	Defects in castings and its prevention	
56	112/14	Mr. Rakesh Kumar	Uses of Ti alloys in aircraft components	Dr. K.K. Singh
57	94/13	Mr. Sharvan Kumar	Carbion properties of galvanised steel	Dr. G. Das
58	114/13	Mr. Divyanshu Bharti	Uses of aluminium alloys in bicycle parts	Dr. K.K. Singh

### 45Th ADC Foundry Technology, List of Project and Seminar

Si No.	Roll No.	Students Name	Title of the project	Title of Seminar	Guide Name
1	45101	Mr. Somnath Dutta	Effect of Mn Addition of Ductile Iron.	Application of Ductile Iron in automotive Sector.	Dr. Amitesh Kumar
2	45102	Mr. Sanjoy Das	Effect of Cooling Rates on Microstructure & Properties of Compacted Graphite (C. G.) Iron.	Production and Application of Mg-Alloy.	Dr. K.K. Singh
3	45103	Mr. Ujjawal Kumar	Production and Characterisation of Gray Iron.	Austempered Ductile Iron and its Application.	Dr. A.K. Singh
4	45104	Mr. Rakesh Kumar	Production and Characterisation of Gray Iron.	Alloyed Iron & Their Application.	Dr. A.K. Singh
5	45105	Mr. Sankhajeet Chatterjee	Production & Properties of Ductile Iron Casting	Grey Iron Casting : Production, Properties & Application.	Dr. A.K. Singh
6	45106	Mr. Tanay Mukherjee	Effect of Cooling Rates on Microstructure & Properties of Compacted Graphite (C. G.) Iron.	Production and Application of ADI (Austempered Ductile Iron).	Dr. K.K. Singh
7	45107	Mr. Subhasis Chandra	Effect of Mn Addition of Ductile Iron.	Application of Magnesium Alloy Casting in Automotive Sector.	Dr. Amitesh Kumar
8	45108	Ms. Tanishka Sinha	Study and Characterisation of Ductile Iron.	Study of Austempered Ductile Iron.	Dr. A.K. Singh
9	45109	Mr. Satyajit Karmakar	Effect of Cu & Cr Addition in Grey Cast Iron.	Characteristics & Application of Dual Phase Steel.	Dr. Amitesh Kumar
10	45110	Mr. Krishnendu Mukherjee	Effect of Cu & Cr Addition in Grey Cast Iron.	Study on Metal Matrix Composites.	Dr. Amitesh Kumar
11	45111	Mr. Rishabh Srivastava	Study of Effect of Cr & Mn in Grey Iron Casting.	Operation & Application of High Pressure Molding line.	Dr. Amitesh Kumar
12	45112	Mr. Pravas Das	Effect of Cu & Cr Addition in Grey Cast Iron.	Study of Thin Strip Casting.	Dr. Amitesh Kumar
13	45113	Ms. Draksha Bano	Study of Effect of Cr & Mn in Grey Iron Casting.	Study of Rail Steel.	Dr. Amitesh Kumar
14	45114	Mr. Shouvik Nandi	Production and Characterisation of Ductile Iron.	Study of Grey Iron.	Dr. A.K. Singh
15	45115	Mr. Anjan Das	Effect of Cooling Rates on Microstructure & Properties of Compacted Graphite (C. G.) Iron.	Process Control for the Production of S. G. Iron and its Application.	Dr. K.K. Singh



16	45116	Mr. Rupam Karmakar	Production & Properties of Ductile Iron Casting	Austempered Ductile Iron Casting : Production Properties & Application	Dr. A.K. Singh
17	45117	Mr. Sayan Bhattacharjee	Effect of Mn Addition of Ductile Iron.	Present Scenario of Indian Foundry in Automotive Sector.	Dr. Amitesh Kumar
18	45118	Mr. Ajay Kumar Gupta	Effect of Mg on Structure-properties of Al-Si Alloys	Processing of Al-Alloys.	Dr. K.K. Singh
19	45119	Mr. Ashish Kumar Vishwakarma	Effect of Mg on Structure-properties of Al-Si Alloys	Development in Welding Technology of Al-Alloys	Dr. K.K. Singh
20	45120	Md. Faiyaz Alam	Study of Effect of Cr & Mn in Grey Iron Casting.	Study of Bake Hardening of Steel.	Dr. Amitesh Kumar
21	45121	Mr. Sailen Maji	Effect of Mg on Structure-properties of Al-Si Alloys	Al-Alloys for Automotive Application	Dr. K.K. Singh
22	45122	Mr. Nairrit Biswas	Effect of Section Casting on Structure and Properties of Grey Cast Iron.	Advantages & Application of High Pressure Molding.	Dr. Amitesh Kumar
23	45123	Mr. Mehboob Ansari	systematic Optimization of Aluminum Sand Casting Gating Systems.	Avoid Shrinkage Defects and Maximizing Yield in Ductile Iron.	Dr. Nandita Gupta
24	45124	Mr. Arijit Pramanik	Study of Effect of Copper in Grey Cast Iron Castings.	Energy Conservation in Foundry.	Dr. Amitesh Kumar
25	45125	Mr. Oliver Guria	systematic Optimization of Aluminum Sand Casting Gating Systems.	Investigation of Cast Iron Processing to Produce Controlled Dual Graphite Structure in Castings.	Dr. Nandita Gupta
26	45126	Mr. Chandan Kumar Yadav	Effect of Section Thickness on Microstructure and Properties of Ductile Iron Castings.	Production & Properties of ADI.	Dr. Amitesh Kumar
27	45127	Mr. Kartik Gorai	Study of Mechanical Properties of Grey Cast Iron.	Plastic : As a Pattern Materials.	Dr. A.K. Singh
28	45129	Md. Aamir Akhter	Effect of Section Thickness on Microstructure and Properties of Ductile Iron Castings.	Safety Parameters in Foundry Industry.	Dr. Amitesh Kumar
29	45130	Ms. Asmita Mandal	Study and Characterisation of Ductile Iron.	Study of Investment Casting.	Dr. A.K. Singh
30	45131	Mr. Rajesh Khan	Effect of Section Thickness on Microstructure and Properties of Ductile Iron Castings.	Production, Properties & Application of Compacted Graphite Iron.	Dr. Amitesh Kumar
31	45132	Mr. Allauddin Ansari	Study of Effect of Copper in Grey Cast Iron Castings.	Source of Pollution & its Controlling Methods in Foundry.	Dr. Amitesh Kumar

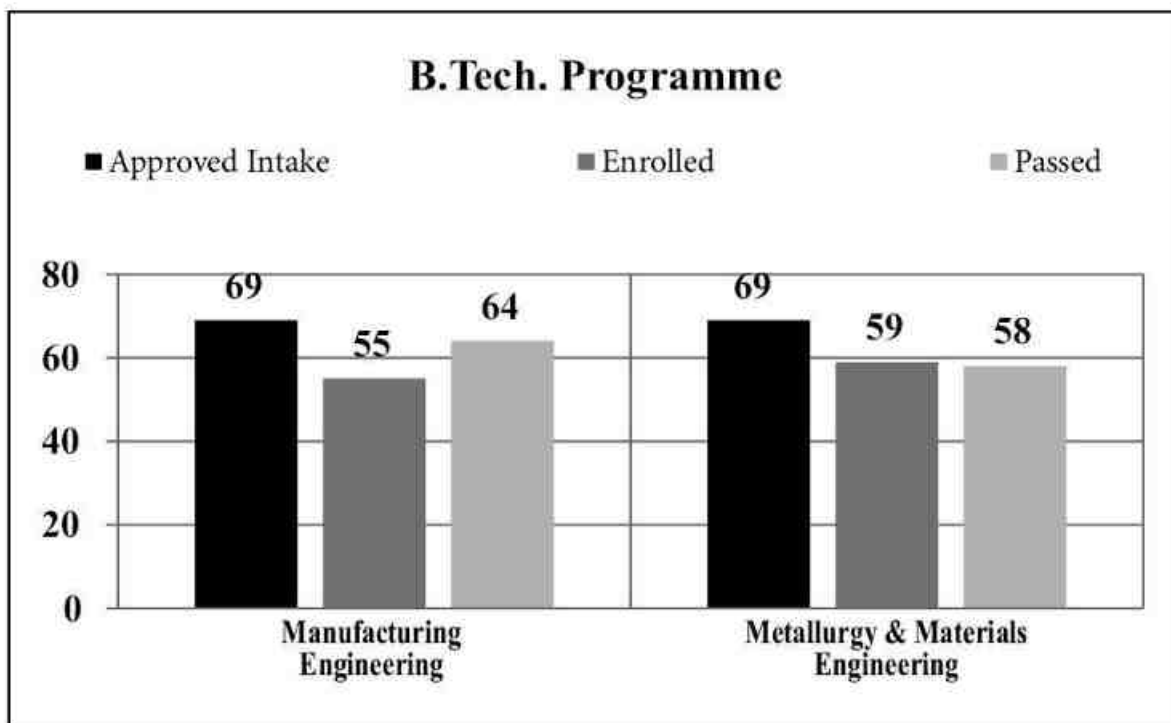
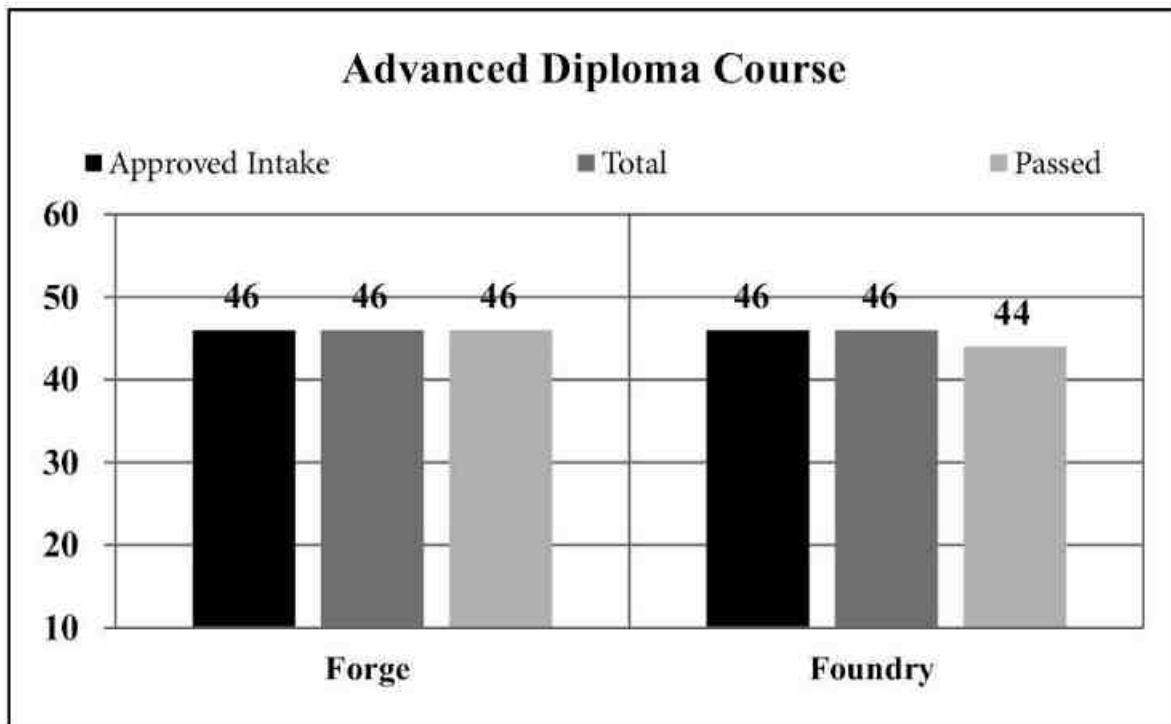
32	45133	Mr. Pushkar	Effect of Heat Treatment and Alloying with Nickel on the Tensile Properties of S. G. Iron Measured on a 25mm Section Size.	Porosity Reduction in Cost Foam Casting of Cylinder Heads by an Advanced Metal Stirring Process.	Dr. Nandita Gupta
33	45134	Mr. Dev Kumar Karmakar	Study of Mechanical Properties of Grey Cast Iron.	S. G. Iron-Production and Application.	Dr. A.K. Singh
34	45135	Mr. Rana Pal	Effect of Heat Treatment and Alloying with Nickel on the Tensile Properties of S. G. Iron Measured on a 25mm Section Size.	Advantages of Pouring Compacted Graphite Iron Using the Lost Foam Casting Processes.	Dr. Nandita Gupta
35	45136	Mr. Subhash Chandra Das	Effect of Heat Treatment and Alloying with Nickel on the Tensile Properties of S. G. Iron Measured on a 25mm Section Size.	Improving Investment Casting Mold Permeability Using Graphite Particles.	Dr. Nandita Gupta
36	45137	Mr. Sona Mondal	Effect of Section Casting on Structure and Properties of Grey Cast Iron.	Manufacturing and Application of Austempered Ductile Iron.	Dr. Amitesh Kumar
37	45138	Mr. Aniket Saha	Effect of Section Casting on Structure and Properties of Grey Cast Iron.	Study of Semi-Solid Casting.	Dr. Amitesh Kumar
38	45139	Mr. Asit Kirtania			
39	45140	Mr. Mrinmoy Mandal	systematic Optimization of Aluminum Sand Casting Gating Systems.	The Effect of Nodularity and Surface Condition on the Fatigue Properties of C. G. Iron.	Dr. Nandita Gupta
40	45141	Mr. Pravhat Majhi	Study of Effect of Copper in Grey Cast Iron Castings.	Application of Computation in Foundry.	Dr. Amitesh Kumar
41	45142	Ms. Preeti Bharti	Production and Characterisation of Gray Iron.	S. G. Iron Production and its Application.	Dr. A.K. Singh
42	45143	Mr. Suraj Singh Binjhia	Production and Characterisation of S. G. Iron.	Grey Iron-In Engineering Material.	Dr. A.K. Singh
43	45144	Mr. Sanjib Murmu	Production and Characterisation of S. G. Iron.	Aluminium Alloys.	Dr. A.K. Singh
44	45145	Mr. Nimai Chand Mandal	Study of Mechanical Properties of Grey Cast Iron.	Alloyed Grey Iron Production and Application.	Dr. A.K. Singh
45	45146	Mr. Debasish Ghosh	Production and Characterisation of S. G. Iron.	Non-Ferrous Alloys.	Dr. A.K. Singh

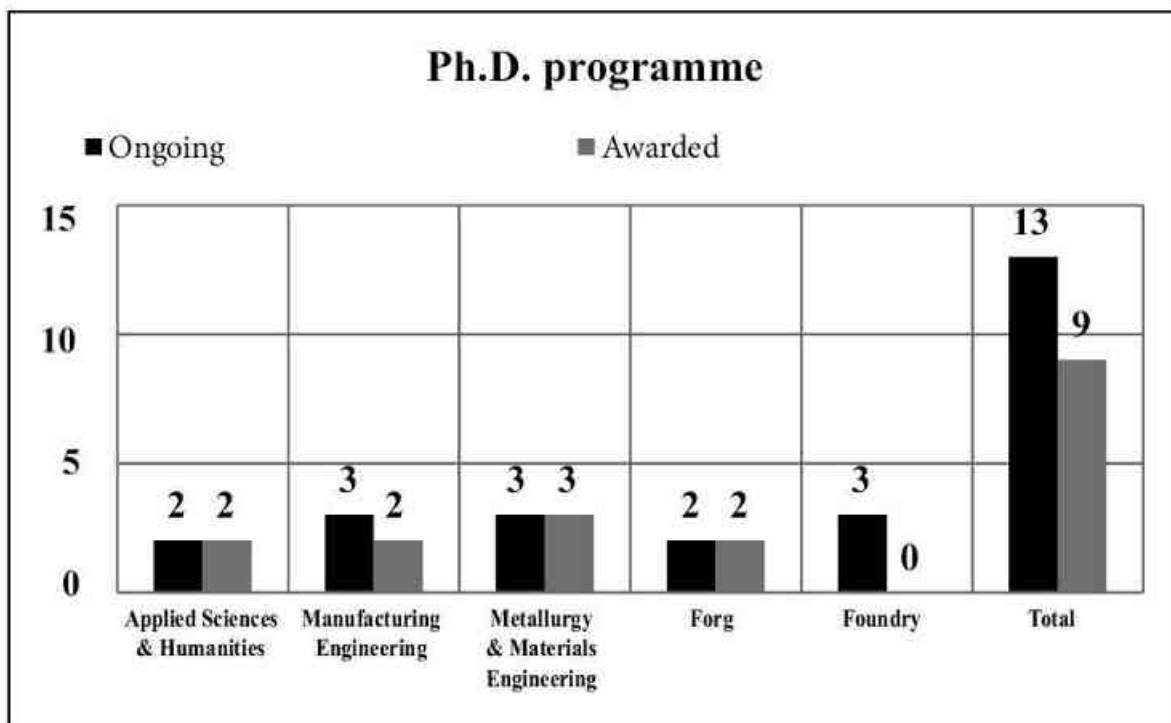
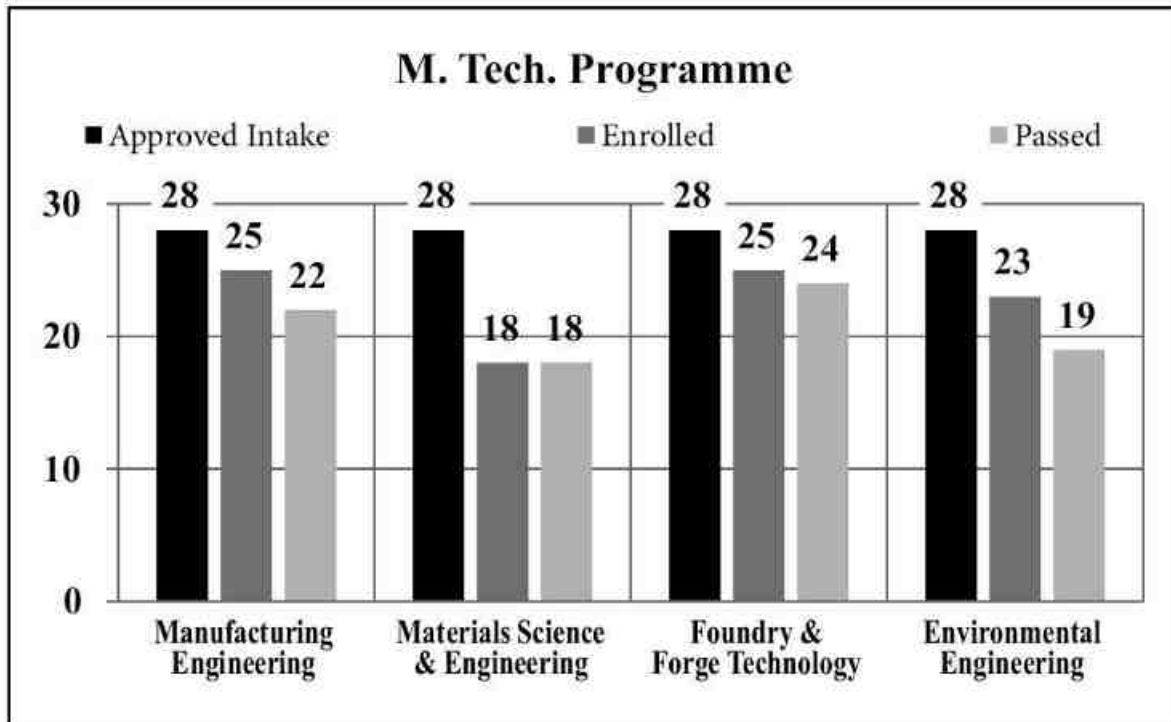
### 45Th ADC Forge Technology, List of Project and Seminar

Sl No.	Roll No.	Student Name	Title of the project	Title of the Seminar	Guide Name
1	45201	Ms. Apoorwa Priya	Design of Gear Blank.	Defects in Open Die Forging.	Dr. Manoj Kumar
2	45202	Mr. Subrata Ghosh	A Study on Heat-Treated Forged En 19 Steel.	Friction Hammers.	P. Talukdar
3	45203	Mr. Parimal Paul	Forge ability Test of Mild Steel by Hot Notch Bar Upset Method.	Precision Forging Process.	Dr. Manoj Kumar
4	45204	Mr. Kausar SK	A Study on Heat-Treated Forged En 19 Steel.	Flashless Forging.	P. Talukdar
5	45205	Mr. Bikash Mehatari	A Study on Heat-Treated Forged En 9 Steel.	Forging of Copper Alloys.	P. Talukdar
6	45206	Mr. Saddam Hos-sain Mollah	A Study on Heat-Treated Forged En 9 Steel.	High Energy Rate Forming.	P. Talukdar
7	45207	Mr. Soumya Pal	A Study on Heat-Treated Forged En 24 Steel.	Factors Effecting on Die Filling.	P. Talukdar
8	45208	Mr. Sourav Sen	A Study on Heat-Treatment of Forged En 31 Steel.	Forging Lubricants.	P. Talukdar
9	45209	Mr. Vivek Kumar	Design of Gear Blank.	Defects in Close Die Forging in Hammer.	Dr. Manoj Kumar
10	45210	Mr. Rakesh Kumar	Forge ability Test of Mild Steel.	Defects During Heat Treatment of Forged Components.	Dr. Manoj Kumar
11	45211	Mr. Manish Kumar Verma	Forge ability of EN 8 Grade Steel.	Study on Forge ability of Medium Carbon Steel.	A. K. Parmanick
12	45214	Mr. Sabyasachi Layek	A Study on Heat-Treatment of Forged En 31 Steel.	Vertical Counter Blow Hammer.	P. Talukdar
13	45215	Mr. Arka Konar	Forging Behavior of En 8 Grade Material.	Study on Wear Behavior of Different Forging Die Material.	A. K. Parmanick
14	45216	Mr. Samiran Ghosh	A Study on Heat-Treated Forged En 9 Steel.	Hot Isostatic Press	P. Talukdar
15	45217	Mr. Soumik Layek	Effect of Upsetting Ratio on Mechanical Properties of Hot Forged Mild Steel.	Recent Development of Die Material.	Dr. Manoj Kumar
16	45218	Mr. Nilesh Mardanya	Effect of Upsetting Ratio on Mechanical Properties of Hot Forged Mild Steel.	Insert Die v/s Solid Die.	Dr. Manoj Kumar

17	45219	Mr. Tapan Sahoo	Forging Behavior of En 24 Grade Material.	Study on Different Types of Forging Hammers.	A. K. Parmanick
18	45220	Mr. Ayan Dey	Forging Behavior of En 24 Grade Material.	Study on Heat Treatment of Forge Material.	A. K. Parmanick
19	45221	Mr. Ram Prasad Patra	A Study on Heat-Treated Forged En 8 Steel.	Heat-Treatment of Forging Dies.	P. Talukdar
20	45223	Mr. Subhadeep Podder			
21	45224	Mr. Dibyendu Dhar	A Study on Heat-Treated Forged En 24 Steel.	Improvement of Die Life.	P. Talukdar
22	45225	Mr. Basudev Dhua	Forge ability Test of Mild Steel by Hot Notch Bar Upset Method.	Polution Free Lubricant for Die Forging.	Dr. Manoj Kumar
23	45226	Mr. Koushik Hazra	A Study on Heat-Treated Forged En 8 Steel.	Application of Wedge Press in Forging.	P. Talukdar
24	45227	Mr. Goutam Dutta	Effect of Upsetting Ratio on Mechanical Properties of Hot Forged Mild Steel.	Die Life Improvement.	Dr. Manoj Kumar
25	45228	Mr. Sanny Kumar Singh	Design of Gear Blank.	Defect in Close Die Forging in Press.	Dr. Manoj Kumar
26	45229	Mr. Manoj Bhagat	Rejection Control of Forge Component.	Die Manufacturing process.	Dr. N.K. Singh
27	45231	Mr. Debdas Kotal	Forge ability Test of Mild Steel by Hot Notch Bar Upset Method.	Powder Forging of Automobile Connecting Rod.	Dr. Manoj Kumar
28	45232	Ms. Ankita Kumari	Forge ability Test of Mild Steel.	Ring Rolling.	Dr. Manoj Kumar
29	45233	Mr. Rajesh Das	Forging Behavior of En 8 Grade Material.	Study on High Temperature Behavior of Forging Die Material.	A. K. Parmanick
30	45234	Mr. Anirban Maji	Forging Behavior of En 8 Grade Material.	Study on Connecting Rod Manufactures by Powder Forging.	A. K. Parmanick
31	45235	Mr. Praful Kumar Singh	Die Design of Yoke and Optimization of Parameters.	Powder Forging.	Dr. N.K. Singh
32	45236	Mr. Ram Jeevan Munda	Rejection Control of Forge Component.	Forging Defects.	Dr. N.K. Singh
33	45237	Mr. Sanjay Sarkar	Die Design of Yoke and Optimization of Parameters.	Iso Thermal Forging.	Dr. N.K. Singh
34	45238	Mr. Pankaj Kumar	Forge ability Test of Mild Steel.	Quenching Media for Heat Treatment of Carbon Steel.	Dr. Manoj Kumar
35	45239	Mr. Rakesh Mondal	Forging Behavior of En 8 Grade Material.	Study on Heat Treatment of Tool Steel.	A. K. Parmanick

## SUMMARY OF ACADEMIC ACTIVITY





## GENERAL ADMINISTRATION

### RETIREMENT

Sl. No.	Name	Designation	Date of Retirement
1.	Dr. S. B. Kumar	Professor	31/05/2018
2.	Mr. Lakhan Razak	Assistant	30/10/2018

### RESIGNATION

1.	Dr. Renu Kumari	Asst. Professor	12/07/2018
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### STAFF STRENGTH AS ON 31.03.2019

Director	01
Professor	12
Associate Professor	09
Assistant Professor	16
Sr. Medical Officer	01
Librarian Sr.	01
Assistant Registrar	02
Assistant Superintendent Workshop	01
Hindi Officer	01
Sr. Technical Assistant	03
Assistant	04
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 :	75

## 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.



## NIFFT HOSTELS

### Hostels

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

1. Nirala Chatrawas
2. Homi J Bhaba Chatrawas
3. M. Visveshwaraya Chatrawas
4. Jagdish Chandra Bose Chatrawas
5. Kalpana Chawla Chatrawas

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

**INDUSTRIAL LIAISON CELL****COMMITTEE MEMBERS**

<b>Faculty Members</b>	
<b>Dr. Kamlesh Kumar</b> Professor Dept. of Foundry Technology	Chairman
<b>Dr. C Chattopadhyay</b> Assistant Professor Dept. of Material and Metallurgical Engg.	Member
<b>Mr. Vineet Chak</b> Assistant Professor Dept. of Forge Technology	Member
<b>Dr. Subhankar Basu</b> Assistant Professor Dept. of Applied Science and Humanities	Member Secretary

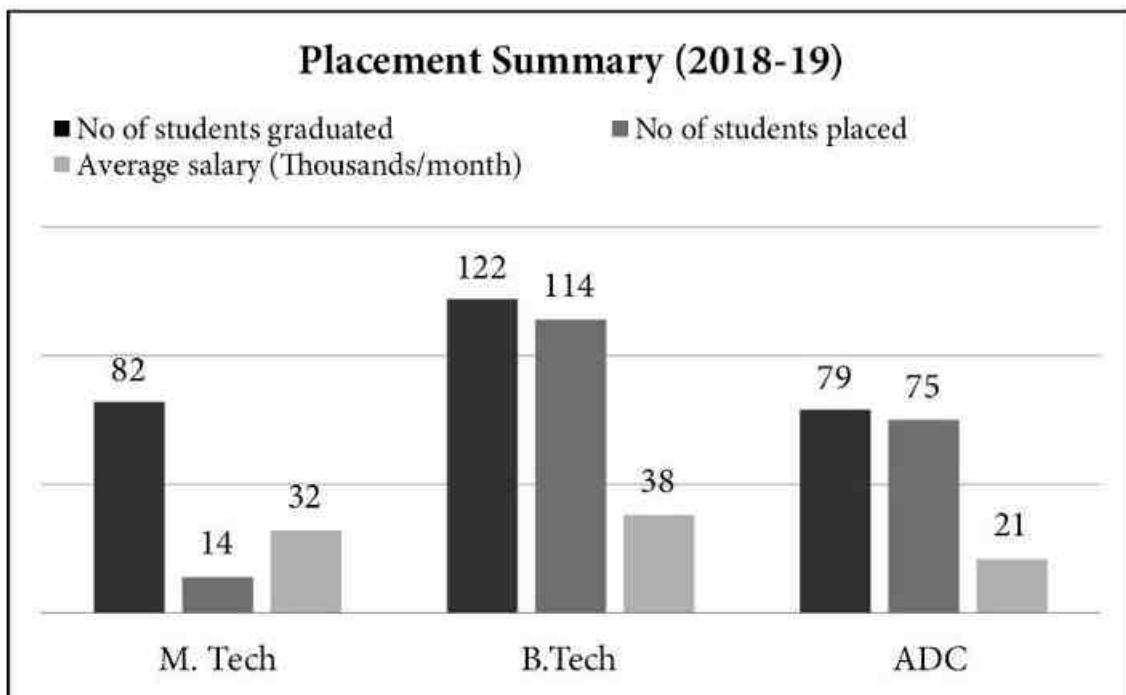
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## PLACEMENT REPORT

### Detailed placement data for 2018-2019

#### Placement percentage (Branch-wise)

Course	No. of students appeared	No. of students placed	% of placement
Advance Diploma Course (Foundry and Forge Tech)	79	75	94.93
B.Tech (Manufacturing Engg. and Metallurgical Engg.)	122	114	93.40
M.Tech (FFT,ME, MSE and MME)	82	14	17.07



### Placement data (Recruiter-wise )

Name of Recruiters	No. of students Placed		
	B.Tech	A.D.C	M.Tech
Ashok Leyland	2	-	-
Bebitz Flanges	1	-	1
Bonfiglioli	1	-	2
Castamet	1	-	-
Crescent Foundry	-	5	1
Electrosteel Casting Ltd.	2	-	-
Endurance Technologies	3	-	-
Flometallic	-	2	-
Foseco	2	-	1
Garima Global Pvt Ltd	-	1	-
Hil Ltd	3	-	-
Hindalco	4	-	-
Jsw	6	3	-
Kpmg	2	-	-
Mahadev Manufacturers	-	5	-
Metso India Pvt. Ltd	-	2	-
Pink City Jewel House	-	-	1
Ptc Industries	4	-	-
Rkfl	-	2	-
Rockman Industries Ltd	2	2	-
Rsb Transmission	-	-	1
Shanghvi Forge Ltd	1	4	-
Shivalik Engineering Industries Ltd	1	11	5
Shivam Auto Tech Ltd	15	15	-
Sri Ram Piston	-	2	-
Synergy Green Industries Ltd.	3	6	1
Tata Motors	4	-	-
Tata Hitachi	2	-	-
Vedanta	11	-	-
Oriental Foundry	1	1	-
Sona Forging	6	-	-
Uttamgalva Steels	8	--	-
Higher Studies	14	3	-
Umashakti Steels	2	21	1
Viraj Profile Ltd	13	12	-

## 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 to day 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 Harrasment against women
  - Committee for selection of Gender champion
  - Acting as Asstt. Public Information officer
  - In-charge Administration



## Annexures Forming Part of Bank Reconciliation Statement

## ANNEXURE- I: Amount credited in Bank but not entered in Cash Book as on 31.03.2019

Date	Particulars	Chq. No.	Amount
01.05.2018	Double Challan Deposit-Yash Nishant		1,700.00
18.03.2019	BSFCL,Patna-N07719077754603		10,000.00
27.03.2019	BSFCL,Patna-N086190784527915		40,600.00
	<b>TOTAL</b>		<b>52,300.00</b>

## ANNEXURE- II: Cheques deposited but not cleared as on 31.03.2019

Date	Particulars	Chq. No.	Amount
11.05.2017	Examination Fees-Institute		2,300.00
04.09.2017	Tuition Fees		22,350.00
08.09.2017	Tuition Fees		25,600.00
29.12.2017	Examination Fees-Institute		1,700.00
10.07.2018	Application Fees	524149	500.00
10.07.2018	Application Fees	153162	1,000.00
10.07.2018	Application Fees	462694	1,000.00
10.07.2018	Application Fees	384795	1,000.00
18.03.2019	Double Entry (N365180713691491) dated:31.12.2018		25,600.00
18.03.2019	Double Entry (N053190757092432) dated:22.02.2019		25,600.00
	<b>TOTAL</b>		<b>1,06,650.00</b>



# **NATIONAL INSTITUTE OF FOUNDRY AND FORGE TECHNOLOGY**

A Centrally Funded Technical Institute under MHRD

(Govt. of India)

HATIA, RANCHI 834003 JHARKHAND



## **GENERAL PROVIDENT FUND FOR THE FINANCIAL YEAR 2018-19**

(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, 2019

Previous Year	Current Year	Previous Year	Current Year
7,15,05,848.00	8,22,06,840.00	8,14,29,995.00	7,96,52,322.00
<b>Liabilities</b>			
<u>GPF</u>			
Opening Balance	7,18,05,848.00		1,60,46,909.00
Add: Subscription	1,40,48,000.00		95,32,371.00
Add: Advances Recovered	1,64,766.00		95,32,372.00
Add: Amount capitalised from GPI	9,08,253.00		1,10,69,482.00
Less: Withdrawals	61,41,500.00		1,05,59,356.00
Less: GPF Final settlements	41,71,475.00		1,56,13,012.00
Add: Interest Credited	55,92,948.00		72,98,820.00
<b>Closing Balance</b>	<b>8,22,06,840.00</b>		
			<b>32,05,428.00</b>
<u>Interest Reserve</u>			
Opening Balance	1,42,83,483.29	28,73,732.00	
Less: Excess of Expense over	1,28,00,489.29		
Income			17,85,604.29
Less: transfer to GPF Fund A/c			
<b>Closing Balance</b>	<b>1,28,00,489.29</b>		<b>1,21,49,579.29</b>
<b>Total</b>	<b>9,50,07,329.29</b>	<b>8,60,89,331.29</b>	<b>9,50,07,329.29</b>
		<b>Total</b>	

AS INTERNAL AUDITOR

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

CA. Vikash Kumar (Proprietor)

MEMBERSHIP NO.: 423928

PLACE : RANCHI

DATE: 22.06.2019



*(Signature)*  
Asstt. Registrar-Accounts

*(Signature)*  
Director



**NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY**  
**HATIA, RANCHI-834003**  
**GENERAL PROVIDENT FUND ACCOUNT**  
**INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2019**

EXPENDITURE	Current Year	INCOME	Current Year
Interest credited to GPF Account	55,92,948.00	Interest Earned on Investment Interest received on FDR Add: Interest accrued on 31.03.2019 Less: Interest Accrued on 31.03.2018	48,27,457.00
Bank Charges	273.00	Interest on Saving Bank Account Excess of Expenditure over Income adjust From Interest Reserve Account	1,91,023.00 5,74,741.00
<b>Total</b>	<b>55,93,221.00</b>	<b>Total</b>	<b>55,93,221.00</b>

AS INTERNAL AUDITOR

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

CA. Vikash Kumar (Proprietor)

MEMBERSHIP NO.: 423928

PLACE : RANCHI

DATE: 22.06.2019


  
 Asstt. Registrar

  
 Director

**NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY**

HATIA, RANCHI-834003

GENERAL PROVIDENT FUND ACCOUNT

RECEIPT AND PAYMENT ACCOUNT FOR FINANCIAL YEAR ENDED 31st MARCH 2019

RECEIPTS	Current Year	PAYMENTS	Current Year
Opening Balance			
Canara Bank SB A/c No. 2730101007115	17,85,604.29	GPF Final Settlement	41,71,475.00
GPF Subscription	1,40,48,000.00	GPF Withdrawal	61,41,500.00
GPF Advance recovery	1,64,766.00	Bank Charges	273.00
FD Encashment(270302000004/3)	58,98,530.00		
Interest on FD Encashment	3,74,904.00		
Interest on Saving Bank Account	1,91,023.00	Closing Balance	1,21,49,579.29
		Canara Bank SB A/c No. 2730101007115	
<b>Total</b>	<b>2,24,62,827.29</b>	<b>Total</b>	<b>2,24,62,827.29</b>

AS INTERNAL AUDITOR

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

CA. Vikash Kumar (Proprietor)

MEMBERSHIP NO.: 423928

PLACE : FANCHI

DATE: 22.06.2019



*[Signature]*  
Asstt. Registrar

*[Signature]*  
Director

**NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY**

HATIA, RANCHI-834003

**GENERAL PROVIDENT FUND ACCOUNT  
DETAILS OF TERM DEPOSITS AS ON 31.03.2019**

Sl.	Account Number	Bank	Principle	Interest Accrued
1	2730401001442/5	Canara	1,60,46,909.00	8,00,866.00
2	2730401002217/4	Canara	95,32,371.00	5,46,357.00
3	2730401002218/4	Canara	95,32,372.00	5,46,357.00
4	30155723633/1(SBI)	Canara	1,10,69,482.00	6,89,714.00
5	2730401001442/6	Canara	1,05,59,356.00	2,64,592.00
6	2730401001627/4	Canara	1,56,13,012.00	2,88,000.00
7	2730401001848/6	Canara	72,98,820.00	69,542.00
<b>Total:</b>			<b>7,96,52,322.00</b>	<b>32,05,428.00</b>



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

**Bank Reconciliation Statement as on 31.03.2019**

1) CANARA BANK SB A/C NO. 2730101007115 (NIFFT GPF A/C)	Particulars	Amount
	Balance as per Ledger as on 31.03.2019	1,21,49,579.29
	Balance as per Bank Statement as on 31.03.2019	1,21,49,579.29
	Difference	-



# NATIONAL INSTITUTE OF FOUNDRY AND FORGE TECHNOLOGY

HATIA, RANCHI-834003

## TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME ACCOUNT

BALANCE SHEET AS AT 31st MARCH, 2019

SOURCES OF FUNDS	Schedule	Current Year 2018-19	Previous Year 2017-18
CORPUS/CAPITAL FUND	1	2,79,74,405.80	3,18,79,659.11
<b>TOTAL</b>		<b>2,79,74,405.80</b>	<b>3,18,79,659.11</b>
APPLICATION OF FUNDS	Schedule	Current Year 2018-19	Previous Year 2017-18
FIXED ASSETS	2	2,61,14,167.69	3,00,19,421.00
CURRENT ASSETS	3	7,05,484.11	7,05,484.11
LOANS, ADVANCES & DEPOSITS	4	11,54,754.00	11,54,754.00
<b>TOTAL</b>		<b>2,79,74,405.80</b>	<b>3,18,79,659.11</b>

AS INTERNAL AUDITOR

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

CA. Vikash Kumar (Proprietor)

\*MEMBERSHIP NO.: 423928

PLACE : RANCHI

DATE: 22.06.2019



*(Signature)*  
Asstt. Registrar-Accounts

*(Signature)*  
Director

**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, 2019**

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

	EXPENDITURE	Schedule	Current Year	Previous Year
OTHER EXPENSES	-	-	-	-
DEPRECIATION	2	2	39,05,253.31	1,49,83,238.28
<b>TOTAL(B)</b>			<b>39,05,253.31</b>	<b>1,49,83,238.28</b>
<b>Balance Being Deficit Carried to Capital Fund</b>			<b>(39,05,253.31)</b>	<b>(1,49,83,238.28)</b>

AS INTERNAL AUDITOR

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

CA. Vikash Kumar (Partner)

MEMBERSHIP NO.: 423928

P-ACE : RANCHI

DATE: 22.06.2019



Asstt. Registrar-Accounts

*(Signature)*  
Director

# **NATIONAL INSTITUTE OF FOUNDRY AND FORGE TECHNOLOGY**

A Centrally Funded Technical Institute under MHRD

(Govt. of India)

HATIA, RANCHI 834003 JHARKHAND



## **TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME ACCOUNT FOR THE FINANCIAL YEAR 2018-19**

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

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

# NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY

HATIA ,RANCHI-834003

## TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME ACCOUNT

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31.03.2019

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

AS INTERNAL AUDITOR

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

CA. Vikash Kumar (Partner)

MEMBERSHIP NO.: 423928

PLACE : RANCHI

DATE: 22.06.2019



Asstt. Registrar-Accounts

  
 Director



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

Particulars	Current Year	Previous Year
Balance at the beginning of the year	31,879,659.11	46,862,897.39
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>31,879,659.11</b>	<b>46,862,897.39</b>
Deduct: Deficit transferred from Income & Expenditure Account	(3,905,253.31)	(14,983,238.28)
<b>Balance at the year end</b>	<b>27,974,405.80</b>	<b>31,879,659.11</b>



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

S.No	Assets Heads	Opening Balance	Additions	Deductions	Total	Depreciation for the Year	Closing Balance
<b>1</b>	<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	2,85,85,236.35	-	-	2,85,85,236.35	29,77,174.70	2,56,08,061.65
2	Furniture, Fixtures & Fittings	1,82,167.37	-	-	1,82,167.37	69,385.13	1,12,782.24
3	Vehicles	26,464.01	-	-	26,464.01	26,464.01	-
4	Lib. Books & Scientific Journals	12,25,553.27	-	-	12,25,553.27	8,32,229.47	3,93,323.80
	<b>Total ( C )</b>	<b>3,00,19,421.00</b>	<b>-</b>	<b>-</b>	<b>3,00,19,421.00</b>	<b>39,05,253.31</b>	<b>2,61,14,167.69</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: 2018-19)**

**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 2018-19 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 on going concern concept, unless otherwise stated, and on Accrual Method of Accounting.

**2. Revenue Recognition:**

- (i) The Institute is funded by the Ministry of Human Resource & Development (MHRD), Govt, of India. The government releases the Grant-in-Aid under two major heads i.e. PLAN and NON-PLAN. Grant-in-aid from Government of India is accounted for in the same financial year for which it is sanctioned by the MHRD, Government of India.
- (ii) The Institute, by way of its own nature/character, generates internal income. The major sources are various fees realized from students, interest earned on investments, consultancy and testing fees and other miscellaneous income. Fee from Students, Sale of Admission forms and realization against discarded/written off assets are accounted for on Cash Basis.
- (iii) Interest on Savings Bank Accounts is accounted for on Cash Basis.
- (iv) Interest on interest bearing advances to staff for house building, vehicles and computers are accounted for on accrual basis in the year of advance even, though the actual recovery of interest in case of house building advances starts after full repayment of principal amount.

**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 Written Down Value 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  
(Accounts)  
(Proprietor)

Date: 22/06/2019

Place: Ranchi



Director



Asst Registrar

**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 .The method of depreciation has been changed from WDV to SLM as instructed by MHRD. Due to unavailability of data for fixed assets SLM method is used taking retrospective effect from 2006. As the management was able to provide data from 2006 (Schedule3).
4. 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.
5. Expenditure in Foreign Currency  
NIL
6. 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.
7. Previous year's Figures have been regrouped /rearranged wherever found necessary.
8. Schedule 1 to 17 are annexed to and bears an integral part of Balance Sheet as at 31<sup>st</sup> March 2019 and Income and Expenditure account for the year ended on that date.

For M/s Kumar Vikash & Company.

Chartered Accountants

  
CA Vikash Kumar  
(Accounts)  
(Proprietor)

  
Director

  
Asst. Registrar

Date: 22/06/2019  
Place: Ranchi




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7. Previous year's Figures have been regrouped /rearranged wherever found necessary.
8. Schedule 1 to 17 are annexed to and bears an integral part of Balance Sheet as at 31<sup>st</sup> March 2019 and Income and Expenditure account for the year ended on that date.

For M/s Kumar Vikash & Company,  
Chartered Accountants

  
CA Vikash Kumar  
(Accounts)  
(Proprietor)

  
Director

  
Asstt. Registrar

Date: 22/06/2019  
Place: Ranchi



**8. Provisions:**

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

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For M/s Kumar Vikash & Company.

Chartered Accountants



CA Vikash Kumar  
(Accounts)  
(Proprietor)

Date: 22/06/2019

Place: Ranchi

  
Director  
Asstt. Registrar



भारतीय लेखा परीक्षा और लेखा विभाग  
कार्यालय प्रधान निदेशक लेखापरीक्षा (केन्द्रीय) लखनऊ



INDIAN AUDIT AND ACCOUNTS DEPARTMENT  
Office of the Principal Director of Audit (Central) Lucknow



No. PDAC/LKO/SAR-NIFFTR/2018-19/ 213

Dated: 10-12-2019

To

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 2018-19.**

Sir,

I enclose a copy of the Audit Report and Audit Certificate along with audited Annual Accounts National Institute of Foundry and Forge Technology (NIFFT), Hatia, Ranchi for the year 2018-19 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 (NIFFT), 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,

Director General of Audit (Central)

Encl: - As above.

Registered  
24-12-19

SR  
26/12/19

**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 2019.**

We have audited the Balance Sheet of National Institute of Foundry and Forge Technology, Hatia, Ranchi as at 31 March 2019 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 Institutes 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 and 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 Resources 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 Institutes 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 121.27crore**

The Institute received grant in aid of Rs 14 crore under the head capital during the year, Interest earned from Government Grant was Rs. 0.10 Crore and unspent balance of previous year was Rs 13.21 crore. Thus the total fund amounting to Rs 27.31 crore was available with the institute during the year. Out of which the Institute incurred expenditure of Rs 4.08 crore under the head capital. As such Rs 23.23 crore was to be exhibited as 'Refundable to Ministry' under the head capital which was not exhibited. This resulted in overstatement of Capital fund and understatement of Current liabilities under the head grant refundable to ministry by Rs 23.23 crore.

**A.1.2** The unspent revenue grant of the previous year was Rs 4.87 crore. During the year, the Institute received revenue grant of Rs 31.76 crore and interest earned from Government Grant was Rs 0.22 crore. Thus the total revenue grantsRs 36.85 crore was available with the institute during the year. Out of which the institute utilized Rs 26.47 crore. As such Rs 10.38 crore was to be shown as grant refundable to Ministry. Non-exhibition resulted in understatement of Current liabilities and overstatement of Capital fund by Rs 10. 38 crore.

**A.1.3** The Institute earned interest of Rs 32.58 lakh from Government grant during the year. The Institute, however, neither added the interest in unspent grant nor exhibited it as refundable to the ministry in the Annual accounts. However, the Institute exhibited

this interest under Income & Expenditure Account. This resulted in understatement of liability and overstatement of excess of income over expenditure by Rs 32.58 lakh.

### **A.2 Current Liabilities (Schedule-2) -Rs 3.38 crore**

**A.2.1.**The Institute deposited with CPWD (Electrical) Rs 526.68 lakh for 18 works, against which CPWD incurred expenditure of Rs 579.28 lakh up to 31.3.2019. As such the Institute was required to exhibit Rs 52.60 lakh as liability. Non depiction resulted in understatement of liability and assets (WIP) by Rs 52.60 lakh.

### **A.3 Fixed Assets (Schedule-3)-Rs 89.98 crore**

**A.3.1**The Institute showed Rs 63.11 crore under the WIP. Out of which Rs 2.30 crore was incurred during the year and Rs 60.81 crore for the prior year's works and which was all ready 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 60.81 lakh.

**A.3.2** The Institute had total Fixed Assets of Rs. 43.99 crore. But the institute did not prepare the Assets Register. The Institute also not carried out the physical verification of fixed assets.

Sl No	Head of Accounts	Amount (Rs in crore)
1	Sch-3 Fixed Assets	41.79
2	Sch-3A. Plan Fixed Assets	2.06
3	Sch-3B. Plan Fixed Assets	0.14
	<b>Total</b>	<b>43.99</b>

### **B. Income& Expenditure**

**B.1.** The CPWD incurred expenditure of Rs20.48 lakh on day to day operation and maintenance of pressure filtration plant out of advance given by the Institute. Though the expenditure was reflected in Form 65 submitted by CPWD, the Institute did not account for the expenditure in Income and Expenditure Account resulting in understatement of

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

**C.1** The Institute is accounting retirement benefit on cash basis. The accounting policy adopted by the Institute contravene 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.2** 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, I&E and Receipts and Payment accounts in the Annual Accounts.

**D. Grants- in-Aid**

The Institute received Grants Rs 45.76 crore (Capital Rs 14.00 crore and Revenue Rs 31.76 crore) from MHRD during the financial year 2018-19. The internal income of the Institute was Rs 3.66 crore. Interest earned on Government Grant was Rs. 0.32 crore (Plan Rs.0.10 crore and non-plan Rs. 0.22 crore). The unspent balance of previous year was Rs 22.09 crore (Plan Rs 13.21 crore and Non Plan Rs 4.87 crore and internal resources Rs 4.01 crore ). Thus, the Institute had total fund of Rs 71.83 crore (Plan/Capital Rs 27.31 crore, Non plan/Revenue Rs 36.85 crore and Internal resources Rs 7.67 crore). Out of which the Institute utilized a sum of Rs 30.55 crore (Plan/Capital Rs 4.08 crore and Non Plan/Revenue Rs 26.47 crore) and leaving of balance of Rs 41.28 crore (Plan/Capital Rs 23.23 crore and Non Plan/ Revenue Rs 10.38 crore and internal resources Rs 7.67 crore) as unutilized amount as on 31.03.2019.

**E. 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.

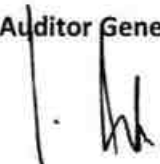
(a) In so far as it relates to the Balance Sheet, of the state of affairs of the National Institute of Foundry and Forge Technology, Hatia, Ranchi as at 31<sup>st</sup> March 2019, and

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

Place: Lucknow.

Date:

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

  
Director General of Audit (Central), Lucknow

**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:

- According to Rule 14 (i) of the Rules and Regulation of Memorandum of Association (MOA) of NIFFT 'The Board shall ordinarily meet once in every three months. Records revealed that during the year 2018-19 only three meetings of BOG were held. No action was taken to hold the meeting quarterly as per rule. This was in contravention of the provision of the MOA.
- 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 and has not been put in place.
- No transfer policy is in place especially the employees dealing with cash, valuables, stores and stock have been put in place.
- Physical progress of the work-in- progress of buildings was not monitored by the concerned authority, resulting in delays in completion of these buildings.
- No Management Reporting system exists in the Institute.
- 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

- No physical verification was done of Fixed Assets and Inventory during the year.
- Cheque issue register were not being maintained properly. Date of encashment of cheque was also not recorded in the Register.
- Acknowledgements of receipts were not attached with vouchers.
- Physical verification of cash and cash book was not periodically done by the institute.
- Day to day Receipts of revenue not remitted in to bank timely.
- The following Registers were not maintained by the Institute. It is maintained in tally.
  - a) Medical claim Register
  - b) Investment Register
  - c) Register of contracts
  - d) Grants-in-aid Register
  - e) Internal Audit Report of CA
  - f) List of Projects and consultancy

### **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. In absence of physical verification, actual existence of assets could not be ascertained in Audit. Besides, no fixed assets register was maintained by the Institute.

### **4. Regularity in payment of statutory dues:**

The institute was regular in payment of statutory dues



# National Institute of Foundry & Forge Technology

A Centrally Funded Technical Institute Under MHRD  
Govt. of India

Hatia, Ranchi - 834003 (Jharkhand)



## Annual Accounts

For the Financial Year 2018-19

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

*Audited by :*

**M/s Kumar Vikas & Company.**

(Chartered Accountants)

Ranchi

**NATIONAL INSTITUTE OF FOUNDRY AND FORGE TECHNOLOGY**  
**ANNUAL ACCOUNTS FOR THE FINANCIAL YEAR 2018-19**  
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# NATIONAL INSTITUTE OF FOUNDRY AND FORGE TECHNOLOGY

HATIA, RANCHI-834003

## BALANCE SHEET AS ON 31st MARCH, 2019

SOURCES OF FUNDS		Schedule	Current Year 2018-19	Previous Year 2017-18
CORPUS/CAPITAL FUND		1	1,21,27,38,608.94	1,02,18,11,821.67
CURRENT LIABILITIES		2	3,37,68,729.20	2,28,42,121.20
<b>TOTAL</b>			<b>1,24,65,07,338.14</b>	<b>1,04,46,53,942.87</b>
APPLICATION OF FUNDS		Schedule	Current Year 2018-19	Previous Year 2017-18
FIXED ASSETS		3		
a) Tangible Assets			14,01,86,444.28	14,63,24,883.31
b) Capital work-In-Progress			75,66,66,139.00	12,55,61,369.00
c) Intangible Assets			30,61,937.40	68,76,656.60
CURRENT ASSETS		4	27,64,15,632.40	11,29,70,209.90
LOANS, ADVANCES & DEPOSITS		5	7,01,77,185.06	65,29,20,824.06
<b>TOTAL</b>			<b>1,24,65,07,338.14</b>	<b>1,04,46,53,942.87</b>

AS INTERNAL AUDITOR

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

CA. Vikash Kumar (Proprietor)

MEMBERSHIP NO.: 423928

PLACE : RANCHI

DATE: 22.06.2019



*(Signature)*  
Asstt. Registrar-Accounts

*(Signature)*  
25-08-19  
Director

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

Particulars	Current Year	Previous Year
Balance at the beginning of the year	1,02,18,11,821.67	91,12,87,931.66
Add: Contributions towards Corpus/Capital fund		-
Add: Grants from UGC, Govt. of India, state Government to the extent utilised for capital expenditure		-
Add: Assets Purchased out of Earmarked Funds		-
Add: Assets Purchased out of Sponsored Projects, where ownership vests in the institution		-
Add: Capital Grants received from Ministry of Human Resource Development (Govt. of India)	14,00,00,000.00	10,00,00,000.00
Add: Assets Donated / Gifts Received		-
Add: Others Additions (Building appreciation)	-	2,51,71,416.98
Less: Others Deduction (Custom Duty paid during the FY 2016-17 for SERB Project new)	-	(1,47,453.00)
Add: Excess of Income over Expenditure transferred from the Income & Expenditure Account	5,09,26,787.27	-
<b>TOTAL</b>	<b>1,21,27,38,608.94</b>	<b>1,03,63,11,895.64</b>
Deduct: Deficit transferred from Income & Expenditure Account	-	(1,45,00,073.97)
<b>Balance at the year end</b>	<b>1,21,27,38,608.94</b>	<b>1,02,18,11,821.67</b>



**SCHEDULE - 2 - CURRENT LIABILITIES**

		<b>CURRENT LIABILITIES</b>	
		<b>Current Year</b>	<b>Previous Years</b>
<b>1</b>	<b>Deposit From Staff</b>	13,77,524.00	11,47,108.00
<b>2</b>	<b>Deposit From Student</b>		
<b>a</b>	Caution Money	67,69,103.50	65,54,003.50
<b>b</b>	Unclaimed fees	5,10,950.00	2,53,550.00
<b>3</b>	<b>Deposit-Others</b>		
<b>a</b>	Earnest Money	9,36,841.00	51,36,841.00
<b>b</b>	Security Deposit	1,74,738.30	1,74,738.30
<b>4</b>	<b>Statutory Liabilities</b>		
<b>a</b>	LIC Premium	6,698.40	6,698.40
<b>b</b>	TDS U/s 192A	38,444.00	1,890.00
<b>c</b>	TDS U/s 194C	48,957.00	39,870.00
<b>d</b>	TDS U/s 194J	1,049.00	(9,051.00)
<b>e</b>	GPF Deduction from Salary	65,380.00	60,710.00
<b>f</b>	Employees Loan Repayment	19,607.00	19,607.00
<b>g</b>	Professional Tax on Salary	6,807.00	41,488.00
<b>h</b>	New Pension Scheme (Employees Contribution)	33,636.00	-
<b>i</b>	New Pension Scheme (Employer Contribution)	33,636.00	-
<b>5</b>	<b>Other Current Liability</b>		
<b>a</b>	Receipt against Sponsored Projects	41,19,095.00	31,55,923.00
<b>b</b>	Receipt against Sponsored Fellowship & Scholarship	25,42,523.00	12,53,413.00
<b>c</b>	<b>Other Liabilities</b>	<b>FY 2018-19</b>	<b>FY 2017-18</b>
<b>a</b>	Account Payable/ Receivable	2,23,441.00	2,23,441.00
<b>b</b>	AICTE	1,40,000.00	1,40,000.00
<b>c</b>	Grant From CBSE Board	50,000.00	50,000.00
<b>d</b>	M/s Total Library Solution	92,784.00	92,784.00
<b>e</b>	NIFFT Alumni Association	4,78,200.00	3,42,500.00
<b>f</b>	Expenses Payable	1,60,99,315.00	41,56,607.00
		<b>3,37,68,729.20</b>	<b>2,28,42,121.20</b>



**SCHEDULE - 2(a) - 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	Chair Professor-Ministry of Steel	-	-	-	-	-	-	-
2	Consultancy-Tata Steel Ltd.	2,72,000	-	3,02,083	5,74,083	5,74,083	-	-
3	Direct Admission of Students Abroad(DASA)	1,28,175	-	-	1,28,175	-	1,28,175	-
4	Project-Board of Research in Nuclear Science(BRNS)	16,39,363	-	-	16,39,363	-	16,39,363	-
5	Project-Science and Engineering Research Board(Old)	1,80,450	-	-	1,80,450	-	1,80,450	-
6	Project-Science & Engineering Research Board(New 1)	2,33,373	-	-	2,33,373	96,849	1,36,524	-
7	Project-Science & Engineering Research Board(New 2)	-	-	9,78,525	9,78,525	-	9,78,525	-
8	Technical Education Quality Improvement Programme	18,704	-	-	18,704	-	18,704	-
9	Buriapur Surgical Cluster, MSME (West Bengal)	6,71,158	-	7,50,000	14,21,158	4,94,399	9,26,759	-
10	Naval Dockyard Mumbai Publication	12,700	-	2,94,000	3,06,700	3,06,700	-	-
11	Unnat Bharat Abhiyan	-	-	1,85,000	1,85,000	74,405	1,10,595	-
	<b>Total</b>	<b>31,55,923</b>	<b>-</b>	<b>25,09,608</b>	<b>56,65,531</b>	<b>15,46,436</b>	<b>41,19,095</b>	<b>-</b>

**SCHEDULE - 2(b) - 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	4,09,600	-	21,46,560	25,56,160	12,52,000	13,04,160	-
2	Ministry of Steel Scholarship	-	-	6,00,000	6,00,000	6,00,000	-	-
3	S N Sinha Memorial Scholarship	10,000	-	5,000	15,000	5,000	10,000	-
4	State Scholarship for Students	8,33,813	-	16,13,550	24,47,363	12,19,000	12,28,363	-
	<b>Total</b>	<b>12,53,413</b>	<b>-</b>	<b>43,65,110</b>	<b>56,18,523</b>	<b>30,76,000</b>	<b>25,42,523</b>	<b>-</b>



SCHEDULE - 3 FIXED ASSETS (O.B)

Sl. No	Assets Heads	Rate of Depreciation (%)	Gross Block			Depreciation for the Year			Net Block	
			Opening Balance 01.04.2018	Additions	Closing Balance	Depreciation Opening Balance	Depreciation for the Year	Total Depreciation	As on 31.03.2019	As on 31.03.2018
1	2	3	4	5	6	7	8	9=7+8	10=11-8	11
1	Land	0%	-	-	-	-	-	-	-	-
2	Site Development	0%	-	-	-	-	-	-	-	-
3	Buildings	2%	16,65,43,001.73	-	16,65,43,001.73	5,62,07,138.19	33,30,860.03	5,95,37,998.22	10,70,05,003.51	11,03,35,863.54
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	10,54,19,112.92	61,26,413.10	11,15,45,526.02	1,09,60,441.22	1,70,86,854.32
8	Plant & Machinery	5%	-	-	-	-	-	-	-	-
9	Scientific & Laboratory Equipment	8%	-	-	-	-	-	-	-	-
10	Office Equipment	7.5%	-5,41,790.36	-	15,41,790.36	-5,41,790.36	-	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	2,00,32,953.46	16,80,580.79	2,17,13,534.25	6,88,162.29	23,68,743.08
14	Vehicles	10%	-8,35,719.00	-	18,35,719.00	-8,35,719.00	-	18,35,719.00	-	-
15	Lib. Books & Scientific Journals	10%	10,05,24,632.58	-	10,05,24,632.58	9,48,49,049.01	48,53,947.47	9,97,02,996.48	-	48,53,947.47
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>28,23,82,979.94</b>	<b>1,59,91,801.39</b>	<b>29,83,74,781.33</b>	<b>11,86,53,607.02</b>	<b>13,46,45,408.41</b>
17	Capital work in Progress (B)	-	-	-	-	-	-	-	-	-
Sl. No	Intangible Assets	Rate of Depreciation (%)	Gross Block			Depreciation for the Year			Net Block	
			Opening Balance 01.04.2018	Additions	Closing Balance	Depreciation Opening Balance	Depreciation for the Year	Total Depreciation	As on 31.03.2019	As on 31.03.2018
18	Computer Software	40%	-	-	-	-	-	-	-	-
19	E-Journals	40%	-	-	-	-	-	-	-	-
20	Patents	9 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>28,23,82,979.94</b>	<b>1,59,91,801.39</b>	<b>29,83,74,781.33</b>	<b>11,86,53,607.02</b>	<b>13,46,45,408.41</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 01.04.2018	Additions	Closing Balance	Depreciation OB	Depreciation for the Year	Total Depreciation	As on 31.03.2019	As on 31.03.2018
1	2	3	4	5	6=4+5	7	8	9=7+8	11	
1	Land	0%	-	-	-	-	-	-	-	
2	Site Development	0%	-	-	-	-	-	-	-	
3	Buildings	2%	-	-	-	-	-	-	-	
4	Roads & Bridges	2%	-	-	-	-	-	-	-	
5	Tube wells & Water Supply	2%	-	-	-	-	-	-	-	
6	Sewage & Drainage	2%	-	-	-	-	-	-	-	
7	Electrical Installation and Equipment	5%	-	-	-	-	-	-	-	
8	Plant & Machinery	5%	840,646.00	1,293,012.00	2,133,658.00	78,826.85	106,682.90	185,509.75	1,948,148.25	761,819.15
9	Scientific & Laboratory Equipment	8%	943,922.00	8,518,724.00	9,456,646.00	123,661.76	756,531.68	880,193.44	8,576,452.56	820,260.24
10	Office Equipment	7.5%	209,705.00	218,500.00	428,205.00	26,252.25	32,115.38	58,367.63	369,837.37	183,452.75
11	Audio Visual Equipment	7.5%	443,260.00	142,999.00	586,259.00	47,953.50	43,969.43	91,922.93	494,336.07	395,306.50
12	Computers & Peripherals	20%	2,561,369.00	498,328.00	3,059,697.00	747,473.60	611,939.40	1,359,413.00	1,700,284.00	1,813,895.40
13	Furniture, Fixtures & Fittings	7.5%	732,147.00	1,033,761.00	1,765,908.00	99,416.85	132,443.12	231,859.97	1,534,048.02	632,730.14
14	Vehicles	10%	4,728,110.00	-	4,728,110.00	1,020,650.90	472,811.00	1,493,461.90	3,234,648.10	3,707,459.10
15	Lib Books & Scientific Journals	10%	769,582.00	1,029,701.00	1,799,283.00	149,830.40	179,928.30	329,758.70	1,469,524.30	619,751.60
16	Tube wells & Water Supply	2%	210,300.00	-	210,300.00	4,206.00	4,206.00	8,412.00	201,888.00	205,094.00
17	Small Value Assets	100%	-	-	-	-	-	-	-	-
<b>Total (A)</b>			<b>11,439,041.00</b>	<b>12,729,025.00</b>	<b>24,168,066.00</b>	<b>2,298,272.11</b>	<b>2,340,627.21</b>	<b>4,638,899.32</b>	<b>19,529,166.67</b>	<b>9,140,768.88</b>
17	Capital work in Progress (B)		125,561,369.00	631,104,770.00	756,666,139.00	-	-	-	756,666,139.00	125,561,369.00
<b>Total (B)</b>			<b>125,561,369.00</b>	<b>631,104,770.00</b>	<b>756,666,139.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>756,666,139.00</b>	<b>125,561,369.00</b>
18	Intangible Assets									
18	Computer Software	40%	-	-	-	-	-	-	-	-
19	E-Journals	40%	17,102,825.00	5,044,018.00	22,146,843.00	10,225,168.40	8,858,737.20	19,084,905.60	3,061,937.40	6,876,656.60
20	Patents	9 Years	-	-	-	-	-	-	-	-
<b>Total (C)</b>			<b>17,102,825.00</b>	<b>5,044,018.00</b>	<b>22,146,843.00</b>	<b>10,225,168.40</b>	<b>8,858,737.20</b>	<b>19,084,905.60</b>	<b>3,061,937.40</b>	<b>6,876,656.60</b>
<b>Grand Total (A+B+C)</b>			<b>154,103,235.00</b>	<b>648,877,813.00</b>	<b>802,981,048.00</b>	<b>12,524,440.51</b>	<b>11,199,364.41</b>	<b>23,723,804.92</b>	<b>779,257,243.07</b>	<b>141,578,794.48</b>





## SCHEDULE - 3B NON PLAN FIXED ASSETS

S.No	Assets Heads	Rate of Depreciation (%)	Gross Block		Depreciation for the Year			Net Block		
			O.B. 01.04.2018	Additions	Closing Balance	Depreciation OB	Depreciation for the Year	Total Depreciation	As on 31.03.2019	As on 31.03.2018
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%	117,495.00	-	117,495.00	7,049.70	2,349.90	9,399.60	108,095.40	110,445.30
6	Sewage & Drainage	2%	-	-	-	-	-	-	-	-
7	Electrical Installation and Equipment	5%	-	-	-	-	-	-	-	-
8	Plant & Machinery	5%	65,737.00	-	65,737.00	9,033.05	3,286.85	12,319.90	53,417.10	56,703.95
9	Scientific & Laboratory Equipment	8%	-	-	-	-	-	-	-	-
10	Office Equipment	7.5%	140,600.00	-	140,600.00	19,005.75	10,545.00	29,550.75	111,049.25	121,594.25
11	Audio Visual Equipment	7.5%	268,790.00	-	268,790.00	60,477.75	20,159.25	80,637.00	188,153.00	208,312.25
12	Computers & Peripherals	20%	2,656,211.00	55,430.00	2,711,641.00	758,703.40	542,328.20	1,301,031.60	1,410,609.40	1,897,507.60
13	Furniture, Fixtures & Fittings	7.5%	88,171.00	-	88,171.00	17,090.03	6,612.83	23,702.85	64,468.14	71,080.97
14	Vehicles	10%	-	-	-	-	-	-	-	-
15	Lib. Books & Scientific Journals	10%	33,822.00	2,404.00	36,226.00	6,355.50	3,622.60	9,978.10	26,247.90	27,466.50
16	Scientific & Laboratory Equipment	8%	49,560.00	-	49,560.00	3,964.80	3,964.80	7,929.60	41,630.40	45,595.20
17	Small Value Assets	100%	-	-	-	-	-	-	-	-
Total (A)			3,420,386.00	57,834.00	3,478,220.00	881,679.98	592,869.43	1,474,549.40	2,003,670.59	2,538,706.02
17	Capital work in Progress	-	-	-	-	-	-	-	-	-

S.No	Intangible Assets	Rate of Depreciation	Gross Block		Depreciation for the Year			Net Block		
			O.B. 01.04.2018	Additions	Closing Balance	Depreciation OB	Depreciation for the Year	Total Depreciation	As on 31.03.2019	As on 31.03.2018
18	Computer Software	40	-	-	-	-	-	-	-	-
19	E-Journals	40	-	-	-	-	-	-	-	-
20	Patents	9 Years	-	-	-	-	-	-	-	-
Total (C)			-	-	-	-	-	-	-	-
Grand Total (A+B+C)			3,420,386.00	57,834.00	3,478,220.00	881,679.98	592,869.43	1,474,549.40	2,003,670.59	2,538,706.02



## SCHEDULE - 4 - CURRENT ASSETS

		PARTICULAR	Current Year	Previous Year
<b>1</b>	<b>Sundry Debtors:</b>			
a	Debts outstanding for a period exceeding six months		5,14,152.68	5,14,152.68
<b>2</b>	<b>Cash and Bank Balances</b>			
a	<b>In Saving Accounts</b>			
i	Canara Bank SB A/c No. 2730101006939 (Non-Plan)		1,60,90,009.52	1,38,94,177.52
ii	Canara Bank SB A/c No. 2730101007913 (Plan)		2,31,429.60	4,35,54,47.6C
iii	Canara Bank SB A/c No. 273010109959		1,127.00	1,088.0C
iv	SBI Hatia SB A/c (O.B.)		3,344.10	3,344.1C
v	Canara Bank SB A/c No. 2730101011451		48,08,771.00	1,000.0C
vi	Canara Bank SB A/c No. 2730101011452		12,02,17,163.50	1,000.0C
vii	Canara Bank SB A/c No. 2730101011453		4,45,49,635.00	1,000.0C
<b>3</b>	<b>Cash</b>			
a	Cash in hand		-	-
<b>4</b>	<b>Investment</b>	(schedule-4(a))	-	5,50,00,000.00
<b>5</b>	<b>Fund in Transit</b>		9,00,00,000.00	-
	<b>TOTAL</b>		<b>27,64,15,632.40</b>	<b>11,29,70,209.90</b>



**SCHEDULE 4(a) : INVESTMENTS**

	Amount in Rupees	
	Current Year	Previous Year
Term Deposit with Nationalized Bank	-	5,50,00,000.00



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

	Current Year	Previous Years
<b>1 Advances to Employees: (Non Interest Bearing)</b>		
a Expenses Advance	7,04,699.00	2,95,385.00
b Festival Advance	9,000.00	42,750.00
c Leave Travel Concession Advance	2,24,386.00	3,74,569.00
d Medical Advance	2,87,219.00	15,079.00
e Travelling Advance	34,965.00	7,327.00
f Rolling Advance	3,88,085.00	3,59,602.00
<b>2 Advances to Employees: (Interest Bearing)</b>		
a House Building Advances	13,000.00	37,000.00
b Computer Advance	3,57,594.00	98,894.00
c Car/Motorcycle/Scooter Advance	98,190.00	1,82,210.00
<b>3 Advances &amp; Other amounts Recoverable on Capital Account</b>		
a NIFT-Golden Jubilee Celebration	20,10,199.33	30,10,199.33
b Contribution to Annual Feast-JIINKS	16,00,000.00	16,00,000.00
c Advance SBI online A/c -1268	10,62,063.20	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	3,00,000.00
<b>b to Suppliers</b>		
a <b>Advance to Suppliers(O.B)</b>		
a M/s Ed.CIL (India) Ltd. (for Campus Wide Networking)	13,53,195.00	13,53,195.00
b M/s Mecon Ltd.	5,00,000.00	5,00,000.00
c M/s National Informatic Centre	3,29,07,670.00	3,29,07,670.00
d M/s Patents Info	15,000.00	15,000.00
e M/s Sreeleathers	3,235.00	3,235.00
b Deposits Against Foreign Letter of Credit(O.B.)	65,21,899.53	65,21,899.53
c Advance to Central Public Works Department	1,71,12,134.00	59,92,16,904.00
d Advance to Hotel Peepal Tree	9,070.00	-
<b>4 Prepaid Expense</b>		
a Pre Paid Internet Expenses	11,80,000.00	11,80,000.00



	Current Year	Previous Years
<b>5 Deposits</b>		
<b>a Telephone</b>		
a Security Deposit With P&T Department	29,550.00	29,550.00
<b>b Electricity</b>		
a Security Deposit With Jharkhand Electricity Board	12,15,000.00	12,15,000.00
c AICTE	1,88,047.00	1,88,047.00
d Others		
a CBI Attachment	5,54,613.00	5,54,613.00
b Security Deposit & Earnest Money (O.B.)	2,16,707.00	2,16,707.00
c SBI (FDR) Scholar Fund	23,378.00	23,378.00
d Security Deposit With Jayant Gas Co.	32,501.00	32,501.00
e Security Deposit With Ranchi University	2,50,000.00	2,50,000.00
f Student Welfare Fund	21,563.00	21,563.00
g M/s Jyoti India	-	55,000.00
<b>6 Income Accrued:</b>		
a On Advance to Employees	14,143.00	14,143.00
b On Investment	-	3,95,541.00
<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	83,170.00
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>7,01,77,185.06</b>	<b>65,29,20,824.06</b>



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

**INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON 31st MARCH, 2019**

INCOME	Schedule	Current Year	Previous Year
ACADEMIC RECEIPTS	6	3,66,46,162.00	3,72,45,333.00
GRANTS	7	31,75,95,000.00	23,56,95,000.00
INCOME FROM INVESTMENT	8	7,00,975.50	14,73,216.00
INTREST EARNED	9	25,57,387.00	28,11,157.00
OTHER INCOME	10	19,17,067.00	28,51,831.00
<b>TOTAL(A)</b>		<b>35,94,16,591.50</b>	<b>28,00,76,537.00</b>
EXPENDITURE	Schedule	Current Year	Previous Year
STAFF PAYMENT & BENEFITS (Establishment Expenses)	11	19,71,75,111.00	19,04,91,610.00
ACADEMIC EXPENSES	12	4,56,05,315.00	3,37,84,572.00
ADMINISTRATIVE AND GENERAL EXPENSES	13	3,05,08,464.00	2,60,53,534.90
TRANSPORTATION EXPENSES	14	9,13,312.00	9,91,915.00
REPAIR & MAINTENANCE EXPENSES	15	65,03,567.00	58,58,345.00
DEPRECIATION	3	2,77,84,035.23	3,73,96,826.07
<b>TOTAL(B)</b>		<b>30,84,89,804.23</b>	<b>29,45,76,802.97</b>
<b>Balance Being Deficit Carried to Capital Fund (A-B)</b>		<b>5,09,26,787.27</b>	<b>(1,45,00,265.97)</b>

AS INTERNAL AUDITOR

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

CA. Vikash Kumar (Proprietor)

MEMBERSHIP NO.: 423928

PLACE : RANCHI

DATE: 22/05/2019



*Vikash*  
Asstt. Registrar-Accounts

*D. 23-08-19*  
Director

## SCHEDULE - 6 - ACADEMIC RECEIPTS

PARTICULAR		Current Year	Previous year
FEES FROM STUDENTS			
<b>1 Academic</b>			
a	Admission Fee	66,100.00	53,800.00
b	Application Fee	2,49,525.00	1,24,000.00
c	Computer Fee	12,65,500.00	12,86,000.00
d	Grade Card Fee	48,750.00	48,150.00
e	Library Access Fee	12,23,500.00	13,43,000.00
f	Registration/Enrolment Fee	2,89,800.00	3,47,500.00
g	Seat Rent	25,07,400.00	24,75,000.00
h	Tuition Fees	2,25,10,050.00	2,24,21,100.00
	<b>Total (A)</b>	<b>2,81,60,625.00</b>	<b>2,80,98,550.00</b>
<b>2 Examinations</b>			
a	Examination Fee-Institute	6,34,500.00	7,83,950.00
b	Examination Fee-Ranchi University	22,16,100.00	23,08,400.00
	<b>Total (B)</b>	<b>28,50,600.00</b>	<b>30,92,350.00</b>
<b>3 Other Fees</b>			
a	Fines & Penalties	1,06,687.00	1,98,033.00
b	Gymkhana Fee	3,70,350.00	3,85,800.00
c	Hostel Fee	61,400.00	48,400.00
d	Hostel Maintenance Fee (Establishment Charges)	40,08,000.00	43,53,000.00
e	Identity Card Fee (Re-issued)	350.00	800.00
f	Internet Access Fee	3,84,150.00	3,74,400.00
g	Medical Fee	6,94,500.00	6,94,000.00
h	Seminar/Thesis Fees	9,500.00	-
	<b>Total (C)</b>	<b>56,34,937.00</b>	<b>60,54,433.00</b>
	<b>GRAND TOTAL (A+B+C)</b>	<b>3,66,46,162.00</b>	<b>3,72,45,333.00</b>



## SCHEDULE - 7 GRANTS

PARTICULAR	Govt. of India(MHRD)		Current Year Total	Previous Year Total
	Plan	Non Plan		
Receipts during the Year	-	31,75,95,000.00	31,75,95,000.00	23,56,95,000.00
Less: Refund	-	-	-	-
			<b>31,75,95,000.00</b>	<b>23,56,95,000.00</b>

## SCHEDULE - 8 - INCOME FROM INVESTMENTS

PARTICULAR	Current Year	Previous Year
1 Interest on Term Deposit with Nationalized Bank	7,00,975.50	10,77,675.00
2 Interest accrued on Term Deposit but not received	-	3,95,541.00
<b>Note-10</b>	<b>7,00,975.50</b>	<b>14,73,216.00</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	10,46,664.00	14,24,929.00	24,71,593.00	26,46,397.00
2 Interest on Loans of Employees			85,794.00	1,64,760.00
			<b>25,57,387.00</b>	<b>28,11,157.00</b>





**SCHEDULE -10- OTHER INCOME**

PARTICULAR	Current Year	Previous Year
<b>A. Income from Land &amp; Buildings</b>		
1. Electricity Charges Recovered	2,47,177.00	2,22,752.00
2. Rent Recovered	2,34,675.00	2,59,700.00
3. License Fee Recovered	3,33,770.00	3,25,587.00
4. Water Charges Recovered	924.00	958.00
<b>Total (A)</b>	<b>8,16,546.00</b>	<b>8,09,397.00</b>
<b>B. Others</b>		
<b>1. Others Incomes</b>		
a) Bus Charges Recovery	69,550.00	19,660.00
b) Certificate Verification & Transcript Fee	49,000.00	32,160.00
c) Photocopy Charges	276.00	-
2. Income From Consultancy	44,432.00	5,35,690.00
3. Misc. Receipts	41,904.00	14,54,924.00
4. Recruitment Fees	6,19,275.00	-
5. RTI Fees	665.00	-
6. Rechecking Charges	3,200.00	-
7. Income From Scrape Sale	2,72,219.00	-
<b>Total (B)</b>	<b>11,00,521.00</b>	<b>20,42,434.00</b>
<b>Grand Total ( A+B)</b>	<b>19,17,067.00</b>	<b>28,51,831.00</b>



## SCHEDULE - 11 - STAFF PAYMENTS &amp; 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)	-	9,67,31,406.00	9,67,31,406.00	-	8,72,49,893.00	8,72,49,893.00
b) Salary Arrear	-	48,95,177.00	48,95,177.00	-	2,39,18,528.00	2,39,18,528.00
2. Allowance and Bonus	-	5,27,016.00	5,27,016.00	-	1,00,166.00	1,00,166.00
<b>3. Retirement and Terminal Benefits</b>						
a)Composite Transfer/TA Grant	-	2,84,536.00	2,84,536.00	-	26,564.00	26,564.00
b)Encashment of Leave	-	50,51,702.00	50,51,702.00	-	10,60,689.00	10,60,689.00
c)Leave Salary & Pension Contribution	-	1,15,415.00	1,15,415.00	-	3,14,844.00	3,14,844.00
d)Other Retirement Benefit	-	-	-	-	64,950.00	64,950.00
e)Payment of Gratuity	-	25,72,468.00	25,72,468.00	-	45,03,880.00	45,03,880.00
f)Pension	-	4,26,09,896.00	4,26,09,896.00	-	3,66,64,173.00	3,66,64,173.00
g)Commutation	-	44,30,884.00	44,30,884.00	-	20,71,577.00	20,71,577.00
h)Arrear to Pensioner	-	71,33,566.00	71,33,566.00	-	34,38,713.00	34,38,713.00
4. Leave Travel Concession facilities	-	18,11,216.00	18,11,216.00	-	7,79,354.00	7,79,354.00
5. Medical Facility	-	12,69,896.00	12,69,896.00	-	12,29,928.00	12,29,928.00
6. Children Education Allowance	-	8,31,912.00	8,31,912.00	-	8,32,993.00	8,32,993.00
7. Honorarium	-	1,53,921.00	1,53,921.00	-	1,23,939.00	1,23,939.00
<b>8. Payment to Adhoc Staff</b>						
a)Consultants & Contractual Staff	-	13,65,879.00	13,65,879.00	-	3,94,170.00	3,94,170.00
b)Salary-System Administrator	-	3,29,491.00	3,29,491.00	-	3,00,743.00	3,00,743.00
c)Salary-Lab Staff's	-	4,32,822.00	4,32,822.00	-	-	-
d).ndian Allied Security-Manpower Supply	-	1,72,09,794.00	1,72,09,794.00	-	1,65,41,492.00	1,65,41,492.00
e)Bombay Intelligence Security-Sweeping & Cleaning	-	91,29,947.00	91,29,947.00	-	79,35,752.00	79,35,752.00
f)M/s Service Master Clean Ltd.-Manpower Supply	-	-	-	-	29,39,262.00	29,39,262.00
g)Physical Trainer	-	70,000.00	70,000.00	-	-	-
h)Accountant	-	2,18,167.00	2,18,167.00	-	-	-
<b>TOTAL</b>	-	<b>19,71,75,111.00</b>	<b>19,71,75,111.00</b>	-	<b>19,04,91,610.00</b>	<b>19,04,91,610.00</b>



## SCHEDULE - 12 - ACADEMIC EXPENSES

PARTICULAR	Current Year			Previous Year		
	Plan	Non Plan	Total	Plan	Non Plan	Total
1. Examination Expenses	-	18,84,000.00	18,84,000.00	-	25,95,728.00	25,95,728.00
2. Payment to Visiting Faculty	-	20,35,263.00	20,35,263.00	-	19,70,558.00	19,70,558.00
<b>3. Stipend /Merit Cum Means Scholarship</b>	-	-	-	-	-	-
a) Merit-Cum-Means Scholarship	-	13,60,000.00	13,60,000.00	-	13,26,000.00	13,26,000.00
b) Scholarship to M.Tech Students	-	2,96,60,521.00	2,96,60,521.00	-	1,75,39,615.00	1,75,39,615.00
c) Stipend to Advanced Diploma Course Students	-	39,02,404.00	39,02,404.00	-	42,94,994.00	42,94,994.00
d) Stipend to PhD Scholars	-	42,21,838.00	42,21,838.00	-	29,16,448.00	29,16,448.00
<b>4. Student Welfare Expenses</b>	-	-	-	-	-	-
a) NIFFT Clinic Expenses	-	1,44,376.00	1,44,376.00	-	98,161.00	98,161.00
b) Student Medical Reimbursement	-	-	-	-	675.00	675.00
c) Students Recreation Activities	-	4,24,832.00	4,24,832.00	-	1,43,710.00	1,43,710.00
d) Medical Insurance of Students	-	5,12,217.00	5,12,217.00	-	-	-
5. Laboratory & Workshop Expenses	-	10,85,590.00	10,85,590.00	-	13,99,803.00	13,99,803.00
6. Participation in Seminar & Conferences	-	2,22,948.00	2,22,948.00	-	1,95,575.00	1,95,575.00
7. Seminar/Workshop/Conference Expenses	-	1,32,326.00	1,32,326.00	-	9,31,340.00	9,31,340.00
8. Subscription/Membership Expenses	-	-	-	-	31,840.00	31,840.00
9. Other Academic Expenses	-	19,000.00	19,000.00	-	3,40,125.00	3,40,125.00
<b>TOTAL</b>	-	<b>4,56,05,315.00</b>	<b>4,56,05,315.00</b>	-	<b>3,37,84,572.00</b>	<b>3,37,84,572.00</b>



## SCHEDULE - 13 - ADMINISTRATIVE AND GENERAL EXPENSES

PARTICULAR	Current Year		Previous Year	
	Plan	Non Plan	Plan	Non Plan
<b>A) Infrastructure</b>				
<b>a) Electricity &amp; Power</b>				
a) D.G. Set Fuel Expenses	-	10,36,811.00	-	6,05,261.00
b) Jharkhand Bijli Vitran Nigam Ltd.	-	84,80,071.00	-	88,93,122.00
<b>b) Rent, Rates and Taxes</b>				
a) Lease Rent to M/s HEC Ltd.	-	51,804.00	-	51,804.00
b) Municipal Tax	-	38,17,277.00	-	4,00,000.00
<b>B) Communication</b>				
<b>a) Telephone, Fax and Internet Charges</b>				
a) M/s BSNL	-	3,61,941.00	-	3,42,357.00
b) M/s Enet	-	-	-	21,317.00
c) M/s Software Technology Parks of India	-	-	-	68,540.00
d) Other Mobile & Landline	-	5,418.00	-	9,797.00
e) BSNL Internet Leased Line	-	11,80,000.00	-	11,50,000.00
f) Internet Charges-NICSI	-	1,57,825.00	-	62,179.00
<b>b) Postage &amp; Stationery Expenses</b>				
a) M/s BSNL	-	34,944.00	-	40,151.00
<b>C) Others Expenditure</b>				
<b>a) Advertisement &amp; Publicity</b>				
a) M/s Jagran Prakashan Ltd.	-	76,972.00	-	-
b) M/s THG Publishing Pvt.Ltd.	-	2,92,068.00	-	-
c) M/s Employment News	-	94,466.00	-	51,672.00
d) M/s Hindustan Media Ventures Ltd.	-	35,206.00	-	-
e) M/s HT Media Ltd.	-	25,704.00	-	-
f) M/s Neutral Publishing House Ltd.	-	1,59,036.00	-	-
g) M/s Kasturi & Sons Pvt. Ltd.	-	-	-	1,03,794.00
h) M/s Neutral Publishing House Ltd.	-	-	-	83,160.00
i) M/s Sandeep Consultant	-	1,638.00	-	-
j) The Samagra Jagran Prakashan Ltd.	-	1,000.00	-	-
<b>Total</b>				
		10,36,811.00		6,05,261.00
		84,80,071.00		88,93,122.00
		51,804.00		51,804.00
		38,17,277.00		4,00,000.00
		3,61,941.00		3,42,357.00
		-		21,317.00
		-		68,540.00
		5,418.00		9,797.00
		11,80,000.00		11,50,000.00
		1,57,825.00		62,179.00
		34,944.00		40,151.00
		76,972.00		-
		2,92,068.00		-
		94,466.00		51,672.00
		35,206.00		-
		25,704.00		-
		1,59,036.00		-
		-		1,03,794.00
		-		83,160.00
		1,638.00		-
		1,000.00		-
		1,000.00		-

Contd...



PARTICULAR	Current Year			Previous Year		
	Plan	Non Plan	Total	Plan	Non Plan	Total
b) Hospitality Expenses	-	16,89,414.00	16,89,414.00	-	8,75,223.00	8,75,223.00
c) Internal & CAG Auditor Remuneration	-	4,37,371.00	4,37,371.00	-	2,47,260.00	2,47,260.00
d) Magazine/Journals/News Paper/Subscriptions	-	10,698.00	10,698.00	-	10,759.00	10,759.00
e) Printing & Stationary (Consumption)	-	9,31,052.00	9,31,052.00	-	4,51,087.00	4,51,087.00
f) Rajbhasha Activities Expenses	-	42,319.00	42,319.00	-	83,647.00	83,647.00
g) Security Expenses						
h) Jharkhand Home Guards		59,23,125.00	59,23,125.00		69,84,080.00	69,84,080.00
i) Sitting Charges for Meetings	-	6,95,505.00	6,95,505.00	-	57,900.00	57,900.00
j) Travelling & Conveyance	-	27,14,737.00	27,14,737.00	-	20,70,551.00	20,70,551.00
k) Legal Expenses	-	1,54,850.00	1,54,850.00	-	3,03,795.00	3,03,795.00
l) Bank Charges	-	21,441.00	21,441.00	-	21,079.00	21,079.00
m) Celebration & other Activities Expenses		20,09,924.00	20,09,924.00		30,39,664.00	30,39,664.00
n) Miscellaneous Expenditure	-	65,847.00	65,847.00	-	25,335.90	25,335.90
<b>TOTAL</b>	-	<b>3,05,08,464.00</b>	<b>3,05,08,464.00</b>	-	<b>2,60,53,534.90</b>	<b>2,60,53,534.90</b>



**SCHEDULE- 14 - TRANSPORTATION EXPENSES**

PARTICULAR	Current Year			Previous Year		
	Plan	Non Plan	Total	Plan	Non Plan	Total
<b>1. Vehicles (Owned by Institutions)</b>						
a) Insurance Expenses	-	1,79,774.00	1,79,774.00	-	1,90,804.00	1,90,804.00
B) Running Expenses (Fuel)	-	5,51,203.00	5,51,203.00	-	5,24,959.00	5,24,959.00
C) Vehicles Repairs & Maintenance	-	1,38,043.00	1,38,043.00	-	2,60,628.00	2,60,628.00
<b>2. Vehicles Hiring Expenses</b>	-	44,292.00	44,292.00	-	15,524.00	15,524.00
<b>Total</b>	-	<b>9,13,312.00</b>	<b>9,13,312.00</b>	-	<b>9,91,915.00</b>	<b>9,91,915.00</b>

**SCHEDULE- 15 - REPAIRS & MAINTENANCE**

PARTICULAR	Current Year			Previous Year		
	Plan	Non Plan	Total	Plan	Non Plan	Total
<b>1. Annual Maintenance Cost</b>						
a) AMC of DG Set	-	47,200.00	47,200.00	-	47,200.00	47,200.00
b) AMC of Photocopier	-	86,090.00	86,090.00	-	24,780.00	24,780.00
c) AMC of Water Purifiers	-	33,285.00	33,285.00	-	22,000.00	22,000.00
<b>2. Building Maintenance</b>	-	23,88,145.00	23,88,145.00	-	21,99,098.00	21,99,098.00
<b>3. Cleaning Material &amp; Services</b>	-	4,34,296.00	4,34,296.00	-	5,52,739.00	5,52,739.00
<b>4. Computer Maintenance</b>	-	1,83,859.00	1,83,859.00	-	1,39,149.00	1,39,149.00
<b>5. Electrical Maintenance</b>	-	16,44,235.00	16,44,235.00	-	8,78,624.00	8,78,624.00
<b>6. Furniture &amp; Fixtures Maintenance</b>	-	47,729.00	47,729.00	-	44,180.00	44,180.00
<b>7. Gardening</b>	-	1,22,775.00	1,22,775.00	-	1,98,225.00	1,98,225.00
<b>8. Office Equipments Maintenance</b>	-	1,07,407.00	1,07,407.00	-	1,80,397.00	1,80,397.00
<b>9. Repair &amp; Maintenance-Others</b>	-	14,08,546.00	14,08,546.00	-	15,71,953.00	15,71,953.00
<b>Total</b>	-	<b>65,03,567.00</b>	<b>65,03,567.00</b>	-	<b>58,58,345.00</b>	<b>58,58,345.00</b>



**NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY**  
**HATIA, RANCHI-834003**  
**RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31.03.2019**

RECEIPTS	Sch. No.	Current Year 2018-19	Previous Year 2017-18	PAYMENTS	Sch. No.	Current Year 2018-19	Previous Year 2017-18
<b>I. Opening Balances</b>				<b>I. Expenses</b>	<b>20</b>		
A) Cash Balances		-	-	1. Non Plan Expenses		16,70,50,068.00	16,69,74,857.00
B) Bank Balances				1. Staff Payments & Benefits (Est. Expenses)		3,59,83,470.00	3,09,79,618.00
In Savings Accounts				2. Academic Expenses		2,11,48,709.00	1,78,58,706.90
SB A/c No. 2730101006939 (Non-Plan)		1,38,94,177.52	2,02,21,248.25	3. Administrative and General Expenses		2,48,466.00	5,49,666.00
SB A/c No. 2730101007913 (Plan)		4,35,54,447.60	0.10	4. Transportation Expenses		31,14,885.00	44,68,156.00
SB A/c No. 2730101009959 (IDF)		1,088.00	1,000.00	5. Repair & Maintenance		13,60,040.00	36,87,429.00
SB Hatia (O.B)		3,344.10	3,344.10	II. Payments Against Sponsored Projects	<b>21</b>		
Canara Bank SB A/c No. 102191203(Online)		-	70,637.50	III. Payments Against Sponsored Fellowship	<b>2(b)</b>		
SBI SB A/c No 36228721268(Online)		-	21,147.70	IV. Expenditure on Fixed Assets			
Canara Bank SB A/c No. 2730101011451(OH-31)		1,000.00	-	1. Plan Fixed Assets	<b>22</b>	1,26,21,476.00	4,89,34,610.00
Canara Bank SB A/c No. 2730101011452(OH-36)		1,000.00	-	2. Non Plan Fixed Assets	<b>23</b>	21,280.00	49,440.00
Canara Bank SB A/c No. 2730101011453(OH-35)		1,000.00	-	V. Term Deposit With Scheduled Bank	<b>24</b>	-	5,00,00,000.00
II. Grants Received				VI. Loans, Advances and Deposits	<b>25</b>	7,77,57,204.00	11,34,87,386.70
From Government of India(MHRD)				VII. Other Payments	<b>26</b>	6,21,35,236.00	4,68,58,735.10
1. Plan Grant		9,00,00,000.00	10,00,00,000.00	VIII. Closing Balances			
2. Non Plan Grant		27,75,95,000.00	23,56,95,000.00	A) Cash Balances		-	-
III. Academic Receipts	<b>16</b>			B) Bank Balances			
1. Academic		2,11,55,075.00	2,80,98,550.00	In Savings Accounts			
2. Examination		26,06,400.00	30,92,350.00	Canara Bank SB A/c No. 102191203(Online)		1,60,90,009.52	1,38,94,177.52
3. Other Fees		1,37,66,337.00	60,54,433.00	Canara Bank SB A/c No. 2730101006939 (Non Plan)		2,31,429.60	4,35,54,447.60
IV. Receipts Against Sponsored Projects	<b>2(a)</b>			Canara Bank SB A/c No. 2730101007913(Plan)		1,127.00	1,088.00
V. Receipt Against Sponsored Fellowship	<b>2(b)</b>			SBI Hatia SB A/c (O.B.)		3,344.10	3,344.10
VI. Interest Received on				SBI SB A/c No 36228721268(Online)		-	-
1. On SB Accounts(Non Plan)		14,24,929.00	4,44,888.00	Canara Bank SB A/c No. 2730101011451(OH-31)		48,08,771.00	1,000.00
2. On Loans & Advances		85,794.00	1,33,712.00	Canara Bank SB A/c No. 2730101011452(OH-36)		12,02,17,163.50	1,000.00
3. On Term Deposits		7,00,975.50	3,25,233.00	Canara Bank SB A/c No. 2730101011453(OH-35)		4,45,49,635.00	1,000.00
4. On SB Accounts(Plan)		10,46,664.00	20,92,794.00				
VII. Term Deposits Encashed							
FD Encashment		5,50,00,000.00	4,83,90,969.00				



VIII. Other Income					
1. other Income	17	18,72,203.00	20,32,333.00		
IX. Miscellaneous receipts Including statutory Receipts	18	3,69,43,265.00	3,92,73,961.10		
X. Deposits & Advances	19	40,05,479.00	5,15,70,126.17		
XI. Sundry Debtors 1. EDCIL India Ltd.		-	35,00,000.00		
		57,04,18,313.72	55,40,18,861.92	57,04,18,313.72	55,40,18,861.92

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

CA. Vikash Kumar (Proprietor)  
MEMBERSHIP NO.: 423928  
PLACE : RANCHI  
DATE: 22.06.2019



*(Signature)*  
Asstt. Registrar-Accounts

*(Signature)*  
Director



**SCHEDULE- 16 - ACADEMIC RECEIPTS**

<b>PARTICULARS</b>	<b>AMOUNT</b>
<b>1.Academic</b>	
a. Admission Fee	25,700.00
b. Application Fee	2,49,525.00
c. Computer Fee	10,20,500.00
d. Grade Card Fee	30,000.00
e. Library Access Fee	10,16,500.00
f. Registration/Enrolment Fee	1,58,200.00
g. Seat Rent	20,39,400.00
h. Tuition Fees	1,66,15,250.00
<b>(1) Sub Total</b>	<b>2,11,55,075.00</b>
<b>2.Examination Fees</b>	
a. Examination Fees-Institute	15,10,500.00
b.Examination Fees-Ranchi University	10,95,900.00
<b>(2) Sub Total</b>	<b>26,06,400.00</b>
<b>3.Other Fees</b>	
a.Fine & Penalties	1,06,687.00
b.Gymkhana Fee	2,92,950.00
c.Hostel Fees	21,000.00
d.Hostel Maintenance Fee	33,99,000.00
e.Identity card Fee	350.00
f.Internet Access Fee	3,06,750.00
g.Medical Fee	5,77,500.00
h.Seminar/Thesis Fees	9,500.00
i.Degree Fees	1,15,200.00
4.Admission Fees from CSAB 2018	58,97,400.00
5.CCMT 2018	30,40,000.00
<b>(3) Sub Total</b>	<b>1,37,66,337.00</b>



**SCHEDULE- 17 - OTHER INCOME**

PARTICULARS	AMOUNT
<b>1. Other</b>	
a. Bus Charges Recovery	69,550.00
b. Certificate/Transcript verification fees	49,000.00
c. Misc. Receipts (sale of Tender Form etc.)	41,904.00
d. RTI Fees	665.00
e. Photocopy Charges	276.00
f. Rechecking Charges	3,200.00
g. Recruitment Fees	6,19,275.00
h. Income from Scrape Sale	2,72,219.00
<b>2. Income from Land &amp; Building</b>	
a. Electricity charges Recovered	2,47,117.00
b. Rent Recovered	2,34,675.00
c. Licence Fees	3,33,400.00
d. Water Charges Recovery	922.00
<b>TOTAL</b>	<b>18,72,203.00</b>



**SCHEDULE- 18 MISC.RECEIPTS INCLUDING STATUTORY RECEIPTS**

PARTICULARS	AMOUNT
<b>1.Current Liabilities</b>	
a.Gratiuity,Leave Encashment-D.Roy	2,12,416.00
b.Lakhan Rajak withheld Amount	18,000.00
b.Caution Money	5,74,500.00
c.Earnest Money	1,00,000.00
d.Other current Liabilities	13,46,293.00
<b>2.Statutory Liabilities</b>	
a.Employees Loan Repayment	15,000.00
b.GPF Deduction from Salary	1,41,60,322.00
c.GIS Premium	29,500.00
d.LIC Premium	12,74,214.00
e.New Pension Scheme (Employees Contribution)	21,14,634.00
f.New Pension Scheme (Employers Contribution)	21,06,141.00
g.Professional Tax on Salary	1,43,410.00
h.TDS Payable U/sec. 192A	1,46,64,700.00
i.TDS Payable U/sec. 194C	81,784.00
j.TDS Payable U/sec. 194J	1,02,351.00
<b>TOTAL</b>	<b>3,69,43,265.00</b>



**SCHEDULE- 19 - DEPOSIT & ADVANCES**

PARTICULARS	AMOUNT
<b>1.Advance &amp; Other Amount Receivable</b>	
a.Advance to SBI (online)-1268	7,00,000.00
b.Amount Received from Hotel Peepal Tree	5,930.00
<b>2.Advance to Employees (Interest Bearing)</b>	
a.Car/Motorcycle/Scooter Advance	84,020.00
b.Computer Advance	91,300.00
c.House Building Advance	24,000.00
<b>3.Advance to Employees (Non Interest Bearing)</b>	
a.Expenses Advance	10,24,537.00
b.Festival Advance	45,900.00
c.Leave Travel Concession Advance	14,14,779.00
d.Medical Advance	20,000.00
e.Rolling Advance	26,369.00
f.Travelling Advance	91,383.00
<b>4.Claim Receivable</b>	
a.Amount Receivable from Pensioners	26,720.00
<b>5.Income Accrued</b>	
a.Interest Accrued on Investment	3,95,541.00
<b>6.Deposits</b>	
M/s. Jyoti India,Hatia	55,000.00
<b>TOTAL</b>	<b>40,05,479.00</b>





<b>SCHEDULE- 20 - NON-PLAN EXPENSES</b>		
<b>PARTICULARS</b>	<b>AMOUNT</b>	
<b>1. Academic Expenses</b>		
a. Examinat on Expenses	18,41,000.00	
b. Payment to Visiting Faculty	78,750.00	
c. Stipend/Merit cum means Scholarship	3,24,57,983.00	
d. Student Welfare Expenses	10,28,662.00	
e. Laboratory & workshop Expenses	3,74,823.00	
f. Participation in Seminar & Conferences Expenses	1,27,380.00	
g. Seminar/Workshop/Conference Expenses	55,872.00	
h. Other Academic Expenses	19,000.00	
<b>2. Administrative General Expenses</b>		
a. Communication	4,87,538.00	
b. Infrastructure	1,16,61,848.00	
c. Others Expenditure	89,99,323.00	
<b>3. Repair &amp; Maintenance</b>		
a. Annual Maintenance Cost	86,090.00	
b. Building Maintenance	13,83,570.00	
c. Computer Maintenance	1,05,953.00	
d. Cleaning Material & Services	24,880.00	
e. Electrical Maintenance	7,38,947.00	
f. Furniture & Fixture Maintenance	-	
g. Gardning	73,440.00	
h. Repair & Maintenance-Printer	32,960.00	
i. Repair & Maintenance-others	6,62,045.00	
<b>4. Staff Payments &amp; Benefits (Est. Expenses)</b>		
a. Allowances & Bonus	1,03,166.00	
b. Children Education Allowance	8,31,912.00	
c. Honorarium	1,35,125.00	
d. Leave Travel Concession Facilities	3,94,613.00	
e. Medical Facility	8,47,036.00	
f. Payment to Adhoc Staff	9,24,659.00	
g. Retirement & Terminal Benefits	6,21,98,467.00	
h. Salaries & Wages	10,16,18,090.00	
<b>5. Transportation Expenses</b>		
a. Vehicle Hiring Expenses	44,292.00	
b. Vehicles (Owned by Institution)	1,79,774.00	
c. Vehicles Repair & Maintenance	24,400.00	
<b>TOTAL</b>	<b>22,75,45,598.00</b>	

**SCHEDULE- 21 - PAYMENT AGAINST SPONSORED PROJECT**

PARTICULARS	AMOUNT
Buriapur Surgical Cluster, MSME (West Bengal)	4,94,399.00
Chair Professor-Ministry of Steel	-
Consultancy-Tata Steel Ltd.	5,05,902.00
Naval Dockyard Mumbai Publication	1,88,485.00
Unnat Bharat Abhiyan	74,405.00
Project-Science & Engineering Research Board(New 1)	96,849.00
<b>TOTAL</b>	<b>13,60,040.00</b>

**SCHEDULE- 22 - PLAN FIXED ASSETS**

PARTICULARS	AMOUNT
Audio Visual Equipment	72,500.00
Computer & Peripherals	4,84,878.00
Furniture, Fixture & Fittings	10,10,161.00
Library Books & Scientific Journals	10,29,701.00
Office Equipment	2,18,500.00
Plant & Machinery	12,93,012.00
Scientific Laboratory Equipment	85,12,724.00
<b>TOTAL</b>	<b>1,26,21,476.00</b>



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

<b>PARTICULARS</b>	<b>AMOUNT</b>
Computer & Peripherals	21,280.00
<b>TOTAL</b>	<b>21,280.00</b>

**SCHEDULE- 24 - TERM DEPOSIT WITH SCHEDULED BANK**

<b>PARTICULARS</b>	<b>AMOUNT</b>
<b>TOTAL</b>	<b>.</b>



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

PARTICULARS	AMOUNT
<b>1.Advance &amp; Other Amount Receivable in cash/kind</b>	
a. Advance to Suppliers	4,93,65,010.00
b. On Capital Account	1,96,13,783.00
<b>2.Advance to Employees ( Non Interest Bearing)</b>	
a. Expenses Advance	28,33,346.00
b. Festival Advance	12,150.00
c. Leave Travel Concession Advance	26,81,199.00
d. Medical Advance	7,15,000.00
e. Rolling Advance	7,63,620.00
f. Travelling Advance	2,43,096.00
<b>3.Advance to Employees ( Interest Bearing)</b>	
Computer Advance	3,50,000.00
<b>4.Prepaid Expense</b>	
a. Prepaid Internet Expenses	11,80,000.00
<b>TOTAL</b>	<b>7,77,57,204.00</b>

**SCHEDULE- 26 - OTHER PAYMENT**

PARTICULARS	AMOUNT
<b>1.Deposit From Students</b>	
a. Caution Money	18,01,400.00
<b>2.Deposits-Other</b>	
a. Earnest Money	43,00,000.00
<b>3.Other Current Liabilities</b>	
a. Other Liabilities	3,63,97,474.00
<b>4.Statutory Liabilities</b>	
a. Employees Loan Repayment	15,000.00
b.GPF Deduction from Salary	1,41,55,652.00
c.GIS Premium	29,500.00
d.LIC Premium	12,74,214.00
e. New Pension Scheme(Employees Contribution)	20,80,998.00
f. New Pension Scheme(Employers Contribution)	20,80,998.00
<b>TOTAL</b>	<b>6,21,35,236.00</b>



NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY  
HATIA, RANCHI-834003  
BANK RECONCILIATION STATEMENT AS ON 31.03.2019

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

Particulars	Amount
Balance as per Ledger as on 31.03.2019	1,60,90,009.52
Add: Amount credited in Bank but not entered in Cash Book as on 31.03.2019 (Annexure-I)	52,300.00
Less: Cheques deposited but not cleared as on 31.03.2019 (Annexure-II)	1,06,650.00
Balance as per Ledger as on 31.03.2019 (After Calculation)	1,60,35,659.52
Balance as per Bank Statement as on 31.03.2019	1,60,35,659.52
Difference	-

2) CANARA BANK SB A/C NO. 2730101007913 (PLAN A/C)

Particulars	Amount
Balance as per Ledger as on 31.03.2019	2,31,429.60
Balance as per Ledger as on 31.03.2019 (After BRS)	2,31,429.60
Balance as per Bank Statement as on 31.03.2019	2,31,429.60
Difference	-

3) CANARA BANK SB A/C NO. 2730101011451

Particulars	Amount
Balance as per Ledger as on 31.03.2019	48,08,771.00
Cheque Issue but not cleared in Bank as on 31.03.2019	8,23,171.00
Cheque Deposit but not cleared in Bank as on 31.03.2019	2,37,999.00
Balance as per Ledger as on 31.03.2019 (After Calculation)	53,93,943.00
Balance as per Bank Statement as on 31.03.2019	53,93,943.00
Difference	-

4) CANARA BANK SB A/C NO. 2730101011452

Particulars	Amount
Balance as per Ledger as on 31.03.2019	12,02,17,163.50
Cheque Issue but not cleared in Bank as on 31.03.2019	1,73,636.00
Add: Bank Charges Debited by Bank but not in cash book	60.00
Balance as per Ledger as on 31.03.2019 (After Calculation)	12,03,90,859.50
Balance as per Bank Statement as on 31.03.2019	12,03,90,859.50
Difference	-

5) CANARA BANK SB A/C NO. 2730101011453

Particulars	Amount
Balance as per Ledger as on 31.03.2019	4,45,49,635.00
Cheque Issue but not cleared in Bank as on 31.03.2019	42,17,277.00
Balance as per Ledger as on 31.03.2019 (After Calculation)	4,87,66,912.00
Balance as per Bank Statement as on 31.03.2019	4,87,66,912.00
Difference	-



## Annexures Forming Part of Bank Reconciliation Statement

## ANNEXURE- I: Amount credited in Bank but not entered in Cash Book as on 31.03.2019

Date	Particulars	Chq. No.	Amount
01.05.2018	Double Challan Deposit-Yash Nishant		1,700.00
18.03.2019	BSFCL, Patna-N07719077754603		10,000.00
27.03.2019	BSFCL, Patna-N086190784527915		40,600.00
	<b>TOTAL</b>		<b>52,300.00</b>

## ANNEXURE- II: Cheques deposited but not cleared as on 31.03.2019

Date	Particulars	Chq. No.	Amount
11.05.2017	Examination Fees-Institute		2,300.00
04.09.2017	Tuition Fees		22,350.00
08.09.2017	Tuition Fees		25,600.00
29.12.2017	Examination Fees-Institute		1,700.00
10.07.2018	Application Fees	524149	500.00
10.07.2018	Application Fees	153162	1,000.00
10.07.2018	Application Fees	462694	1,000.00
10.07.2018	Application Fees	384795	1,000.00
18.03.2019	Double Entry (N365180713691491) dated:31.12.2018		25,600.00
18.03.2019	Double Entry (N053190757092432) dated:22.02.2019		25,600.00
	<b>TOTAL</b>		<b>1,06,650.00</b>



# **NATIONAL INSTITUTE OF FOUNDRY AND FORGE TECHNOLOGY**

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

HATIA, RANCHI 834003 JHARKHAND



## **GENERAL PROVIDENT FUND FOR THE FINANCIAL YEAR 2018-19**

(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 &amp; FORGE TECHNOLOGY

HATIA, RANCHI-834003

GENERAL PROVIDENT FUND ACCOUNT

BALANCE SHEET AS AT 31st MARCH, 2019

Previous Year	Liabilities	Current Year	Previous Year	Assets	Current Year
7,18,05,848.00	<b>GPF</b>	8,22,06,840.00	8,14,29,995.00	<b>Investment in Term Deposit</b>	7,96,52,322.00
	Opening Balance	7,18,05,848.00		2730401001442/5	1,60,46,909.00
	Add: Subscription	1,40,48,000.00		2730401002217/4	95,32,371.00
	Add: Advances Recovered	1,64,766.00		2730401002218/4	95,32,372.00
	Add: Amount capitalised from GPI	9,08,253.00		30155723633/1(SBI)	1,10,69,482.00
	Less: Withdrawals	61,41,500.00		2730401001442/6	1,05,59,356.00
	Less: GPF Final settlements	41,71,475.00		2730401001627/4	1,56,13,012.00
	Add: Interest Credited	55,92,948.00		2730401001848/6	72,98,820.00
	<b>Closing Balance</b>	<b>8,22,06,840.00</b>			
1,42,83,483.29	<b>Interest Reserve</b>	1,28,00,489.29	28,73,732.00	Accrued Interest	32,05,428.00
	Opening Balance	1,42,83,483.29		Cash at Bank	
	Less: Excess of Expense over			Canara Bank SB A/c No. 2730101007115	1,21,49,579.29
	Income	5,74,741.00	17,85,604.29		
	Less: transfer to GPF Fund A/c	9,08,253.00			
	<b>Closing Balance</b>	<b>1,28,00,489.29</b>			
<b>8,60,89,331.29</b>	<b>Total</b>	<b>9,50,07,329.29</b>	<b>8,60,89,331.29</b>	<b>Total</b>	<b>9,50,07,329.29</b>

AS INTERNAL AUDITOR

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

CA. Vikash Kumar (Proprietor)

MEMBERSHIP NO.: 423928

PLACE : RANCHI

DATE: 22.06.2019



*(Signature)*  
Asstt. Registrar-Accounts

*(Signature)*  
Director

**NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY**  
**HATIA, RANCHI-834003**  
**GENERAL PROVIDENT FUND ACCOUNT**  
**INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2019**

EXPENDITURE	Current Year	INCOME	Current Year
Interest credited to GPF Account	55,92,948.00	Interest Earned on Investment Interest received on FDR Add: Interest accrued on 31.03.2019 Less: Interest Accrued on 31.03.2018	48,27,457.00
Bank Charges	273.00	Interest on Saving Bank Account Excess of Expenditure over Income adjust From Interest Reserve Account	1,91,023.00 5,74,741.00
<b>Total</b>	<b>55,93,221.00</b>	<b>Total</b>	<b>55,93,221.00</b>

AS INTERNAL AUDITOR

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

CA. Vikash Kumar (Proprietor)

MEMBERSHIP NO.: 423928

PLACE : RANCHI

DATE: 22.06.2019



Asstt. Registrar

Director

**NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY**

HATIA, RANCHI-834003

GENERAL PROVIDENT FUND ACCOUNT

RECEIPT AND PAYMENT ACCOUNT FOR FINANCIAL YEAR ENDED 31st MARCH 2019

RECEIPTS	Current Year	PAYMENTS	Current Year
Opening Balance			
Canara Bank SB A/c No. 2730101007115	17,85,604.29	GPF Final Settlement	41,71,475.00
GPF Subscription	1,40,48,000.00	GPF Withdrawal	61,41,500.00
GPF Advance recovery	1,64,766.00	Bank Charges	273.00
FD Encashment(270302000004/3)	58,98,530.00		
Interest on FD Encashment	3,74,904.00		
Interest on Saving Bank Account	1,91,023.00	Closing Balance	1,21,49,579.29
		Canara Bank SB A/c No. 2730101007115	
<b>Total</b>	<b>2,24,62,827.29</b>	<b>Total</b>	<b>2,24,62,827.29</b>

AS INTERNAL AUDITOR

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

CA. Vikash Kumar (Proprietor)

MEMBERSHIP NO.: 423928

PLACE : FANCHI

DATE: 22.06.2019



*(Signature)*  
Asstt. Registrar

*(Signature)*  
Director

# NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY

HATIA, RANCHI-834003

## GENERAL PROVIDENT FUND ACCOUNT DETAILS OF TERM DEPOSITS AS ON 31.03.2019

Sl.	Account Number	Bank	Principle	Interest Accrued
1	2730401001442/5	Canara	1,60,46,909.00	8,00,866.00
2	2730401002217/4	Canara	95,32,371.00	5,46,357.00
3	2730401002218/4	Canara	95,32,372.00	5,46,357.00
4	30155723633/1(SBI)	Canara	1,10,69,482.00	6,89,714.00
5	2730401001442/6	Canara	1,05,59,356.00	2,64,592.00
6	2730401001627/4	Canara	1,56,13,012.00	2,88,000.00
7	2730401001848/6	Canara	72,98,820.00	69,542.00
<b>Total:</b>			<b>7,96,52,322.00</b>	<b>32,05,428.00</b>



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

**Bank Reconciliation Statement as on 31.03.2019**

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

Particulars	Amount
Balance as per Ledger as on 31.03.2019	1,21,49,579.29
Balance as per Bank Statement as on 31.03.2019	1,21,49,579.29
Difference	-





# NATIONAL INSTITUTE OF FOUNDRY AND FORGE TECHNOLOGY

HATIA, RANCHI-834003

## TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME ACCOUNT

BALANCE SHEET AS AT 31st MARCH, 2019

SOURCES OF FUNDS	Schedule	Current Year 2018-19	Previous Year 2017-18
CORPUS/CAPITAL FUND	1	2,79,74,405.80	3,18,79,659.11
<b>TOTAL</b>		<b>2,79,74,405.80</b>	<b>3,18,79,659.11</b>
APPLICATION OF FUNDS	Schedule	Current Year 2018-19	Previous Year 2017-18
FIXED ASSETS	2	2,61,14,167.69	3,00,19,421.00
CURRENT ASSETS	3	7,05,484.11	7,05,484.11
LOANS, ADVANCES & DEPOSITS	4	11,54,754.00	11,54,754.00
<b>TOTAL</b>		<b>2,79,74,405.80</b>	<b>3,18,79,659.11</b>

AS INTERNAL AUDITOR

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

CA. Vikash Kumar (Proprietor)

\*MEMBERSHIP NO.: 423928

PLACE : RANCHI

DATE: 22.06.2019



*(Signature)*  
Asstt. Registrar-Accounts

*(Signature)*  
Director

**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, 2019**

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

	EXPENDITURE	Schedule	Current Year	Previous Year
OTHER EXPENSES	-	-	-	-
DEPRECIATION	2	2	39,05,253.31	1,49,83,238.28
<b>TOTAL(B)</b>			<b>39,05,253.31</b>	<b>1,49,83,238.28</b>
<b>Balance Being Deficit Carried to Capital Fund</b>			<b>(39,05,253.31)</b>	<b>(1,49,83,238.28)</b>

AS INTERNAL AUDITOR

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

CA. Vikash Kumar (Partner)

MEMBERSHIP NO.: 423928

P-ACE : RANCHI

DATE: 22.06.2019



Asstt. Registrar-Accounts

*(Signature)*  
Director

# **NATIONAL INSTITUTE OF FOUNDRY AND FORGE TECHNOLOGY**

A Centrally Funded Technical Institute under MHRD

(Govt. of India)

HATIA, RANCHI 834003 JHARKHAND



## **TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME ACCOUNT FOR THE FINANCIAL YEAR 2018-19**

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

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

# NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY

HATIA ,RANCHI-834003

## TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME ACCOUNT

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31.03.2019

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

AS INTERNAL AUDITOR

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

CA. Vikash Kumar (Partner)

MEMBERSHIP NO.: 423928

PLACE : RANCHI

DATE: 22.06.2019



*(Signature)*  
Asstt. Registrar-Accounts

*(Signature)*  
Director

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

Particulars	Current Year	Previous Year
Balance at the beginning of the year	31,879,659.11	46,862,897.39
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>31,879,659.11</b>	<b>46,862,897.39</b>
Deduct: Deficit transferred from Income & Expenditure Account	(3,905,253.31)	(14,983,238.28)
<b>Balance at the year end</b>	<b>27,974,405.80</b>	<b>31,879,659.11</b>



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

S.No	Assets Heads	Opening Balance	Additions	Deductions	Total	Depreciation for the Year	Closing Balance
<b>1</b>	<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	2,85,85,236.35	-	-	2,85,85,236.35	29,77,174.70	2,56,08,061.65
2	Furniture, Fixtures & Fittings	1,82,167.37	-	-	1,82,167.37	69,385.13	1,12,782.24
3	Vehicles	26,464.01	-	-	26,464.01	26,464.01	-
4	Lib. Books & Scientific Journals	12,25,553.27	-	-	12,25,553.27	8,32,229.47	3,93,323.80
	<b>Total ( C )</b>	<b>3,00,19,421.00</b>	<b>-</b>	<b>-</b>	<b>3,00,19,421.00</b>	<b>39,05,253.31</b>	<b>2,61,14,167.69</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: 2018-19)**

**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 2018-19 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 on going concern concept, unless otherwise stated, and on Accrual Method of Accounting.

**2. Revenue Recognition:**

- (i) The Institute is funded by the Ministry of Human Resource & Development (MHRD), Govt, of India. The government releases the Grant-in-Aid under two major heads i.e. PLAN and NON-PLAN. Grant-in-aid from Government of India is accounted for in the same financial year for which it is sanctioned by the MHRD, Government of India.
- (ii) The Institute, by way of its own nature/character, generates internal income. The major sources are various fees realized from students, interest earned on investments, consultancy and testing fees and other miscellaneous income. Fee from Students, Sale of Admission forms and realization against discarded/written off assets are accounted for on Cash Basis.
- (iii) Interest on Savings Bank Accounts is accounted for on Cash Basis.
- (iv) Interest on interest bearing advances to staff for house building, vehicles and computers are accounted for on accrual basis in the year of advance even, though the actual recovery of interest in case of house building advances starts after full repayment of principal amount.

**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 Written Down Value 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  
(Accounts)  
(Proprietor)

Date: 22/06/2019

Place: Ranchi

  
Director  
Asstt Registrar

**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 .The method of depreciation has been changed from WDV to SLM as instructed by MHRD. Due to unavailability of data for fixed assets SLM method is used taking retrospective effect from 2006. As the management was able to provide data from 2006 (Schedule3).
4. 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.
5. **Expenditure in Foreign Currency**  
NIL
6. 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.
7. Previous year's Figures have been regrouped /rearranged wherever found necessary.
8. Schedule 1 to 17 are annexed to and bears an integral part of Balance Sheet as at 31<sup>st</sup> March 2019 and Income and Expenditure account for the year ended on that date.

For M/s Kumar Vikash & Company.  
Chartered Accountants

  
CA Vikash Kumar  
(Accounts)  
(Proprietor)

  
Director

  
Asst. Registrar


Date: 22/06/2019  
Place: Ranchi



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For M/s Kumar Vikash & Company,  
Chartered Accountants

  
CA Vikash Kumar  
(Accounts)  
(Proprietor)

  
Director

  
Asstt. Registrar

Date: 22/06/2019  
Place: Ranchi



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For M/s Kumar Vikash & Company.

Chartered Accountants



CA Vikash Kumar  
(Accounts)  
(Proprietor)

Date: 22/06/2019

Place: Ranchi



Director



Asstt. Registrar

भारतीय लेखा परीक्षा और लेखा विभाग  
कार्यालय प्रधान निदेशक लेखापरीक्षा (केन्द्रीय) लखनऊ



INDIAN AUDIT AND ACCOUNTS DEPARTMENT  
Office of the Principal Director of Audit (Central) Lucknow



No. PDAC/LKO/SAR-NIFFTR/2018-19/ 213

Dated: 10-12-2019

To

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 2018-19.**

Sir,

I enclose a copy of the Audit Report and Audit Certificate along with audited Annual Accounts National Institute of Foundry and Forge Technology (NIFFT), Hatia, Ranchi for the year 2018-19 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 (NIFFT), 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,

Director General of Audit (Central)

Encl: - As above.

Registered  
Signature  
24-12-19

SR  
Signature  
26/12/19

तृतीय तल, आडिट भवन, टीसीओ-35-V-1, विभूति खण्ड, गोमती नगर, लखनऊ-226010 (उप्र) दूरभाष: 0522-2970789, फ़ैक्स 0522-2970780 (प्र.नि.)  
3 rd Floor, Audit Bhawan, T.C-35-V-1, Vibhuti Khond, Gomti Nagar, Lucknow-226010 Ph. : 0522-2970789, Fax : 0522-2970780 (PD)

**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 2019.**

We have audited the Balance Sheet of National Institute of Foundry and Forge Technology, Hatia, Ranchi as at 31 March 2019 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 Institutes 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 and 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 Resources 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 Institutes 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 121.27crore**

The Institute received grant in aid of Rs 14 crore under the head capital during the year, Interest earned from Government Grant was Rs. 0.10 Crore and unspent balance of previous year was Rs 13.21 crore. Thus the total fund amounting to Rs 27.31 crore was available with the institute during the year. Out of which the Institute incurred expenditure of Rs 4.08 crore under the head capital. As such Rs 23.23 crore was to be exhibited as 'Refundable to Ministry' under the head capital which was not exhibited. This resulted in overstatement of Capital fund and understatement of Current liabilities under the head grant refundable to ministry by Rs 23.23 crore.

**A.1.2** The unspent revenue grant of the previous year was Rs 4.87 crore. During the year, the Institute received revenue grant of Rs 31.76 crore and interest earned from Government Grant was Rs 0.22 crore. Thus the total revenue grantsRs 36.85 crore was available with the institute during the year. Out of which the institute utilized Rs 26.47 crore. As such Rs 10.38 crore was to be shown as grant refundable to Ministry. Non-exhibition resulted in understatement of Current liabilities and overstatement of Capital fund by Rs 10. 38 crore.

**A.1.3** The Institute earned interest of Rs 32.58 lakh from Government grant during the year. The Institute, however, neither added the interest in unspent grant nor exhibited it as refundable to the ministry in the Annual accounts. However, the Institute exhibited

this interest under Income & Expenditure Account. This resulted in understatement of liability and overstatement of excess of income over expenditure by Rs 32.58 lakh.

### **A.2 Current Liabilities (Schedule-2) -Rs 3.38 crore**

**A.2.1.** The Institute deposited with CPWD (Electrical) Rs 526.68 lakh for 18 works, against which CPWD incurred expenditure of Rs 579.28 lakh up to 31.3.2019. As such the Institute was required to exhibit Rs 52.60 lakh as liability. Non depiction resulted in understatement of liability and assets (WIP) by Rs 52.60 lakh.

### **A.3 Fixed Assets (Schedule-3)-Rs 89.98 crore**

**A.3.1** The Institute showed Rs 63.11 crore under the WIP. Out of which Rs 2.30 crore was incurred during the year and Rs 60.81 crore for the prior year's works and which was all ready 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 60.81 lakh.

**A.3.2** The Institute had total Fixed Assets of Rs. 43.99 crore. But the institute did not prepare the Assets Register. The Institute also not carried out the physical verification of fixed assets.

Sl No	Head of Accounts	Amount (Rs in crore)
1	Sch-3 Fixed Assets	41.79
2	Sch-3A. Plan Fixed Assets	2.06
3	Sch-3B. Plan Fixed Assets	0.14
	<b>Total</b>	<b>43.99</b>

### **B. Income& Expenditure**

**B.1.** The CPWD incurred expenditure of Rs20.48 lakh on day to day operation and maintenance of pressure filtration plant out of advance given by the Institute. Though the expenditure was reflected in Form 65 submitted by CPWD, the Institute did not account for the expenditure in Income and Expenditure Account resulting in understatement of



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

**C.1** The Institute is accounting retirement benefit on cash basis. The accounting policy adopted by the Institute contravene 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.2** 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, I&E and Receipts and Payment accounts in the Annual Accounts.

**D. Grants- in-Aid**

The Institute received Grants Rs 45.76 crore (Capital Rs 14.00 crore and Revenue Rs 31.76 crore) from MHRD during the financial year 2018-19. The internal income of the Institute was Rs 3.66 crore. Interest earned on Government Grant was Rs. 0.32 crore (Plan Rs.0.10 crore and non-plan Rs. 0.22 crore). The unspent balance of previous year was Rs 22.09 crore (Plan Rs 13.21 crore and Non Plan Rs 4.87 crore and internal resources Rs 4.01 crore ). Thus, the Institute had total fund of Rs 71.83 crore (Plan/Capital Rs 27.31 crore, Non plan/Revenue Rs 36.85 crore and Internal resources Rs 7.67 crore). Out of which the Institute utilized a sum of Rs 30.55 crore (Plan/Capital Rs 4.08 crore and Non Plan/Revenue Rs 26.47 crore) and leaving of balance of Rs 41.28 crore (Plan/Capital Rs 23.23 crore and Non Plan/ Revenue Rs 10.38 crore and internal resources Rs 7.67 crore) as unutilized amount as on 31.03.2019.

**E. 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.

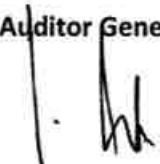
(a) In so far as it relates to the Balance Sheet, of the state of affairs of the National Institute of Foundry and Forge Technology, Hatia, Ranchi as at 31<sup>st</sup> March 2019, and

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

Place: Lucknow.

Date:

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

  
Director General of Audit (Central), Lucknow

**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:

- According to Rule 14 (i) of the Rules and Regulation of Memorandum of Association (MOA) of NIFFT 'The Board shall ordinarily meet once in every three months. Records revealed that during the year 2018-19 only three meetings of BOG were held. No action was taken to hold the meeting quarterly as per rule. This was in contravention of the provision of the MOA.
- 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 and has not been put in place.
- No transfer policy is in place especially the employees dealing with cash, valuables, stores and stock have been put in place.
- Physical progress of the work-in- progress of buildings was not monitored by the concerned authority, resulting in delays in completion of these buildings.
- No Management Reporting system exists in the Institute.
- 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

- No physical verification was done of Fixed Assets and Inventory during the year.
- Cheque issue register were not being maintained properly. Date of encashment of cheque was also not recorded in the Register.
- Acknowledgements of receipts were not attached with vouchers.
- Physical verification of cash and cash book was not periodically done by the institute.
- Day to day Receipts of revenue not remitted in to bank timely.
- The following Registers were not maintained by the Institute. It is maintained in tally.
  - a) Medical claim Register
  - b) Investment Register
  - c) Register of contracts
  - d) Grants-in-aid Register
  - e) Internal Audit Report of CA
  - f) List of Projects and consultancy

### **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. In absence of physical verification, actual existence of assets could not be ascertained in Audit. Besides, no fixed assets register was maintained by the Institute.

### **4. Regularity in payment of statutory dues:**

The institute was regular in payment of statutory dues