# **BIO-DATA**

Dr. Rina Sahu, Assistant Professor,

Metallurgical & Materials Engineering

National Institute of Technology, Jamshedpur-831014 Mobile No.: 9771420866, Landline No.: 0657-2374041 reenasahu.met@nitjsr.ac.in, rinasahu96@gmail.com,

**Qualification:** B.E (Metallurgy-R.I.T Jamshedpur)

M.Tech (Metallurgy-N.I.T Jamshedpur)

Ph.D (Metallic Glass-BESU Shibpur, Howrah-2010)

# **Area of Research Interest:**

- 1) Coal, Lean Grade ore, Mineral Beneficiation
- 2) Metallic glasses, Nanostructured materials,
- 3) Hydrometallurgy.

# **Working/ Professional Experience:**

More than 18 Years of Research and Teaching Experience.

- A. Research Experience: SIX years (approx) at NML Jamshedpur
- 1. NML Jamshedpur, from 2003 to 2004 (one year), under DST Project (M.Tech Project).
- 2. NML Jamshedpur, from June2005 to April 2006 (more than 9 months) DST project.
- 3. NML Jamshedpur, from April 2006 to May 2010 (4 yrs) as a SRF (Ph.D work).
- **B. Teaching Experience: Twelve and Two** months
- 4. NIT Jamshedpur, April 2012 to till date (Nine years & two months-July2021), as a Assistant Professor.
- 5. OPJIT Raigarh, May2010 to March 2012, (Two Years), as a Assistant professor.
- 6. B.I.T. Ranchi, May2004 to June2005 (One year), as a Lecturer & center-coordinator.

# Ph.D:

**Title**: Structure and Properties of Metallic Glass forming Aluminum-Nickel-Lanthanum alloys. Year 2006-2010. Main-Supervisor-Prof. S. Chatterjee, H.O.D, Metallurgy, Bengal Engineering & Science University, Howrah. Supervisor- Dr. K.L. Sahoo, Scientist, CSIR-NML, Jamshedpur

### M.Tech

**Project Title:** "Wear Resistance evaluation of Al-Fe-V-Si alloy" Internal Guide-Prof. R.J. Singh ,H.O.D, Metallurgy, NIT Jamshedpur External Guide-Mr. P.K. De, Scientist, NML, Jamshedpur.

# **Sponsor Project:**

- 1. Student Innovative Project-Strain Induced Melt Activation (SIMA)Sponsor-NIT Jamshedpur, Amount approved- 4.25 Lakh, Name of faculty Adviser with address- Dr. Rina Sahu, Name of Team- TEAM SIMA
- 2. E-waste management and recycling of lead, caesium and their derived products. Not continued
- 3. DST-First Track Project: **Title:** Development of Nanocrystal dispersed bulk Al-based metallic glass by Rapid Solidification Technique. Applied, processed and approved but not taken, Year 2010-Not continued

# **Membership in Professional Bodies:**

- 1. The Indian Institute of Metal (IIM- Life Member),
- 2. The Institute of Engineers (IEI-Life Member),
- 3. The Institute of Indian Foundrymen (IIF-Member),
- 4. Vigyan Bharti, Jharkhand (VB-Life Member).
- 5. Hum Aur Aap Foundation-Member

### **Book Published:**

1. Characterization of Indian Origin Coal, P.R.Mishra, Rina Sahu, Sanchita Chakravarty, LAMBERT Academic Publishing, 2018.

# **Editor/Editorial member of journal:**

- 1. JGSI [Journal of Geological society] 2020-2021, Editorial member, Springer [https://www.springer.com/journal/12594]
- 2. Applied Sciences & Engineering, Springer Nature (India) Private Limited, Springer, Editor.

# **Academic Involvement:**

- 1. Chair the Poster presentation session at AMPT-2019 and AMPT-2020 MME-NIT Jamshedpur
- 2. Chair the Poster presentation session at National Seminar of TECHNICA18, 2018, MME-NIT Jamshedpur.
- **3.** Chair the session at National Seminar entitled "Development in casting Industries-demand and Supply", EASCON-2018, during 23<sup>rd</sup> and 24<sup>th</sup> Nov 2018 at Hotel Ramada, Bistupur, Jamshedpur.
- **4.** Chair the Poster presentation session at National Seminar of TECHNICA 17, Jan 2017, MME-NIT Jamshedpur.
- 5. Chair the Poster presentation session at Ojass 17, NIT Jamshedpur.
- **6.** Chair the Poster presentation session at National Seminar of TECHNICA 17, Jan 2017, MME-NIT Jamshedpur.
- **7.** Member of Organising Committee of 20th National conference on Non-Ferrous Minerals and Metals-2016, July 8-9th, 2016.
- **8.** Chair the Poster presentation session at National Seminar of TECHNICA 16, 22nd-24th Jan 2016, MME-NIT Jamshedpur.
- 9. Chair the Presentation session at National Seminar of TECHNICA 15, 2014, MME-NIT Jamshedpur.
- **10.** Chair the Model presentation session at National Seminar of TECHNICA 14, 17th-19th Jan 2014, MME-NIT Jamshedpur.
- 11. Chair the Presentation session at National Seminar of TECHNICA 13, Jan 2013, MME-NIT Jamshedpur.
- 12. Chair the oral presentation session at National Seminar of LGO-2013, 22nd-23rd Jan 2013, CSIR-NML.
- 13. Chair the oral presentation session at International Seminar of IIM NMD-ATM 2012, 16-19 Nov 2012.
- **14.** Venue- in-charge (technical session) and chair the session, National Conference NCTE-2010 (8-9 Oct) at OPJIT Raigarh.
- **15.** Venue- in-charge (technical session) and chair the session in OPJIT's National level Tech-Fest UDBHAV held at OPJIT Raigarh on 23rd-25th Feb 2011.
- **16.** Venue- in-charge (technical session) and chair the session in national conference NCTE-Nov2011 at OPJIT Raigarh.
- **17.** Publish half yearly issue of "Metallurgical digest" as a professor-in-charge during 2010-2011 at OPJIT Raigarh.

### **Awards and Achievement:**

- 1. 1st prize received, Best paper award, P.R. Mishra, et.al, AMPT-20, NIT Jsr,31st OCT-1 NOV2020.
- 2. 1st prize received, Best paper award, P.R. Mishra, et.al, AMPT-19, NIT Jsr, 30-31st August 2019.
- 3. 1st prize received, Best poster award, Naresh Kumar, et.al, AMPT-19, NIT Jsr,30-31<sup>st</sup> August2019.
- 4. 1st prize received, Best poster award, Shaik Saida,..et.al: MPT-2016, IIME, 4-6th Jan 2016.
- 5. 3rd prize received, poster presentation, Sarita..et.al: LGO-2013, CSIR-NML, 22-23rd Jan 2013.
- 6. Consolation prize received, poster presentation, Amit.et.al, LGO-2013, CSIR-NML, 22-23rd Jan 2013.
- 7. Consolation prize received, Oral presentation, Trilok.et.al, LGO-2013, CSIR-NML, 22-23rd Jan 2013.
- 8. 3rd prize received, Oral presentation, Minal..et.al: LGO-2013, CSIR-NML, 22-23rd Jan 2013.
- 9. Certificate of chairing session & presenting/attending national/International seminar,2010-17
- 10. Certificate of Venue incharge (technical session) in National conference NCTE, OPJIT Raigarh, 2011.
- 11. Certificate of Venue incharge (technical session) in National conference NCTE, OPJIT Raigarh, 2010.
- 12. Scholarship received- Senior Research Fellow, CSIR (2006-2010).
- 13. Certificate of participation workshop`Investment casting process'org. by CEMRI Durgapur,2006.
- 14. Worked in a DST sponsored project as a Research Scholar (2005-2006).
- 15. Certificate of Millennium Quiz 2000 organized by Information Computer Education Ranchi, year 2000.
- 16. Certificates in various events in the Annual Athlete Meet held in R.I.T. Jamshedpur (1996-2000).
- 17. Executive member of (E.A.C) organized by Tata Steel Adventure Foundation (1996-2000).

# **Academic Responsibility/Involvement:**

- 1. Teaching-Diploma, CEP, UG, PG and Ph.D.
- 2. Research group Institute- Geology & Mineral Beneficiation, Member, 2012-13.
- 3. Collaboration-NML Jamshedpur-Member, 2012-13.
- 4. Faculty Adviser-2012 Batch, 2014 Batch, Met. & Mats. Engg,
- 5. Question Paper Setter-UG, PG [OPJIT Raigarh, CSBTU-C.G University, VBU Hazaribag, B.I.T Sindri, NIFFT Ranchi, NIT Jamshedpur..etc].
- 6. Project & Presentation-Prof-In-charge PG-Batch12, 2012-14.
- 7. Professor Incharge-Analysis Laboratory, 2013-17.
- 8. Ph.D-Supervisor-03(1. Ms. A.K. Jha/MME-2013-16, withdraw and 2. Mr. Priya Ranjan Mishra/ MME-2016,3. Himanshu Mishra (2018, Part Time)
- 9. DAC Member Internal-01 (Ms. Anjan Kumari./MME)2012-2017,
- 10. DAC Member External-03 (Mr. R. Ranjan/ME, Mr Jigesh Yadav/ME and Mr Bhuvnesh/ME), 2012-till dt.
- 11. Board of Governor (BOG) Committee-Member, 2013-15 and 2016-2017.
- 12. Alumni Committee-Member, 2012-16,
- 13. Student Counselling Committee-Prof.-In-charge, 2012-15
- 14. Assistant Warden-GHII: 2012-13 and GH I: 2013-16.
- 15. Spic Macay Heritage Clubs-Prof.-In-charge, 2012-16.
- 16. Library Committee-Member, 2012-14.
- 17. Training and Placement-Member, 2012-13.
- 18. Admission Committee (UG)-Member, 2013 and 2014.
- 19. Centre for Women Cell-Member-2014-17.
- 20. Internal Complaints committee-Member, 2016-18.
- 21. National Seminar, TECHNICA 14, NIT Jsr-Core Committee Member.
- 22. Cultural Festival Event, UTKARSH-2013 and UTKARSH-2014, Cultural Event- 2015, NIT Jamshedpur -Core Committee Member.
- 23. Technical Fest, OJASS-2013-2015, NIT Jamshedpur –Sub-Core Committee Member and OJASS-2016 Core Committee Member.
- 24. Purchase of AAS instrument for Analysis Laboratory, DMME, NIT Jsr 2015.
- 25. Warden-GHI and II: 2016, 2017, May 2018.
- 26. Admission Committee (UG)-Member, 2017-2018.
- 27. Faulty incharge-Industrial Training and Tour-MME-NIT Jsr-2018.
- 28. Laboratory Incharge-Foundry-2018,2019,2020.

# **Publication/Journals/International conference paper/ Research Paper:**

### Paper Published: International Journal- 138

[SCI Journal-12, SCOPUS-02, Other-22, Conf.Proc.(abs)-102 (National-77 and International-25)]

### →SCI Journal-12

- 1. Priya Ranjan Mishra, **Rina Sahu** and S. Chakravarty, (2021), Effect of Ash content on the Pyrolysis of Indian Origin coal, Transactions of the Indian Institute of Metals, springer, Accepted for publication [http://doi.org/10.1007/s12666-021-02334-2].
- 2. Saida Shaik, Chakravarty S, **Sahu R,** Das Biswas R and Chakravarty K, Laboratory Scale Tests for the Utilization of High Ash Non-Coking coal in Coke Making Process Transactions of the Indian Institute of Metals, 2020, 73(5), pp-1257-1263.
- 3. M.Pratima, M.Abhilash, P.Abhilash and **Sahu Rina**, Assessment of Environmental impact of spent lithium ion batteries and green recycling perspectives by organic acids, Chemosphere, 2020,242,125291, <a href="https://doi.org/10.1016/j.chemosphere.2019.125291">https://doi.org/10.1016/j.chemosphere.2019.125291</a>
- 4. P.R. Mishra, **Rina Sahu** and S. Chakravarty, Viscosity analysis of Indian origin coal by using FactSage at Different temperatures, Transactions of the Indian Institute of Metals, 2020,73(1), pp-207-214. http://doi.org/10.1007/s12666-019-01823-9.
- 5. S. Shaik, S.Chakravarty, P.R. Mishra, **Rina Sahu** and A. Chakravarty, Caking ability tests for coal blends in process to utilize the Indian origin coals, Trans Indian Inst Met, 2019, 72(12), pp. 97-103,

### http://doi.org/10.1007/s12666-019-01778-x.

- 6. Amit Banerjee, P.R Mishra, Ashok Mohanty and **Rina Sahu**, R. Das Biswas, R. Kumar, S. Chakravarty, Distribution of mineral species in different coal seams of Talchar coalfield and its transformation behaviour at varying temperatures, Int. Journal of Coal Science Technology, Springer, 2016, 3(2), pp. 97-103, ISSN:2198-7823.
- 7. K. L. Sahoo, **Rina Sahu**, Glass transition and crystallization of Al-Ni-La based metallic glasses studied by temperature modulated DSC; Journal of Non-Crystalline Solids,22,33-36, 2013, ISSN: 0022-3093.
- 8. **Rina Sahu**, S. Chatterjee, K. L. Sahoo; Mechanical properties and Nanocrystallization Behavior of Al-Ni-La alloys; Metallurgical and Materials Transactions A, 41,(2010), 4, 861-869, ISSN:1073-5623.
- 9. K.L. Sahoo, **Rina Sahu**, A.J Kailath and S. Chaterjee; Effect of La content on the room temperature ageing behaviour of Al<sub>90-x</sub>Ni<sub>6</sub>La<sub>4+x</sub> (x=0 to 3) metallic glasses, Material Science and Engineering A, 527, 9, 2010, 1339-1342, ISSN: 0921-5093.
- 10. **Rina Sahu**, A.K. Gangopadhyay, K. F. Kelton, S. Chatterjee, K. L. Sahoo; Room temperature ageing of Al-TM-RE (RE=La,Gd,Er) metallic glass, Scripta Materialia, 61, 2009, 588-591, ISSN:1359-6462.
- 11. K. L. Sahoo, **Rina Sahu**, M. Ghosh, S. Chatterjee; Studies on crystallization behaviour and mechanical properties of Al-Ni-La metallic glass; Bulletin of Material Science., 2008, 31 (3), 433-439,ISSN-0250-4707(P) and ELSSN:0973-7669(O).
- 12. K.L. Sahoo, **Rina Sahu**, Amitava Mitra; Kinetic aspects of the nano-crystallization and evolution of micro-hardness in Al<sub>92-x</sub> Ni<sub>8</sub> La<sub>x</sub> amorphous alloys; Material and Manufacturing Processes, 2007, 22, 497-501. ISSN: 1042-6914, Online ISSN:1532-2475.

# → Scopus Index Journal-02

- 1. P.R. Mishra, **Rina Sahu** and S. Chakravarty, Effect of mineral matter on ash combustion behaviour of Indian Coal, International Journal on Emerging Technology, 2020,11(3), pp. 507-509.
- 2. Priya Ranjan Mishra, **Rina Sahu**, S. Chakravarty and N. Kumar, Mineral matter characteristics of Samleswari block Ib valley coalfield, Odisha, 2018, Applied Science Innovations Pvt. Ltd, INDIA, Carbon-Science and Technology, 10/1 (2018)67-71.

# →International Papers published/accepted in Conference Proceedings Indexed in Web of Science/internationally renowned conference-22

- 1. Himanshu Shekhar Mishra, Rina Sahu, D S Padan, Effect of tin on grey Iron automobile casting, IFC-69<sup>th</sup> Kolkatta [accepted for publication]2021.
- 2. Abhijeet Kumar, N. S. Randhawa, J. Hait, Rina Sahu, Electrochemical deposition behaviour of tellurium in alkaline medium, Nonferrous Minerals and Metals, 70-77,22, 2018, full paper electronically published.
- 3. Naresh Kumar, R. Venugopal, S. Soren, S. Chakravarty, Rina Sahu and Priya Ranjan Mishra, Application of the FactSage to predict the ash melting behaviour, 2018, 541-548, CSIR-CIMFR Dhanbad, XVII.
- 4. G. Nandan, S. Chakravarty, Rina Sahu and Priya Ranjan Mishra, MPT- 2018, 10-13th Oct 18, IIT Dhanbad, electronically published.
- P.R. Mishra, Anita Kumari, S. chakravarty and Rina Sahu, Characterization of Coal-core samples from IB-Valley coalfield, Odisha, SMES-NIT Jamshedpur, Tejhas 2017,31-34.
- 6. P.R. Mishra, S. Chakravarty and Rina Sahu, Coal and Coal ash characteristics to understand mineral transformation of Prajapara coalfield, SMES-NIT Jamshedpur, Tejhas2017, 27-30.
- 7. P.R. Mishra, G. Nandan, Rina Sahu and S. Chakravarty, Coal ash characteristics to understand mineral species and transformations behaviour at varying temperature of Talcher coalfields, Mineral Processing Technology, 2017, full paper electronically published.
- 8. Shaik Shaida, Sanchita Chakravarthy, and Rina Sahu, Assessment of coking potentials of coal blends of coking coal and non-coking coal, Presented in Technical Convention and International Seminar on Mineral Processing Technology (MPT-2016), Pune, 4-6TH January 2016, electronically published.
- 9. P.R. Mishra, S. Chakravarty and Rina Sahu, Coal and coal –ash characterization to understand mineral transformation to Prajapara Coalfield, Full Paper electronically published, Mineral Processing Technology,

2015.

- 10. A.M. Panindre, N. Ranjan and Rina Sahu, Reclaming iron from solid wastes via Romelt process, Journal of Metallurgy and Materials Science, 56,3, 2014, 163-172, ID Code-7200, ISSN 0972-4257.
- 11. M. Shah, S. Roy and Rina Sahu, Production of perfect sinter-Need for blast furnaces, Journal of Metallurgy and Materials Science, 56,4,(2014),223-229, ID Code-7208.ISSN 0972-4257.
- 12. R.J. Singh, S.K. Jha, Devilal, Rina Sahu and E.Z. Chacko, Effect of different parameters on breakouts in billet caster, EPD Congress, The Mineral, Metal & Materials Society, 221-229,2014.
- 13. Amit Anand, Manish Kumar Jha and Rina Sahu, Recycling of Precious Metal Gold from Waste Electrical and Electronic equipments (WEEE): A review, Mineral Processing Technology, 2013, XIII, electronically published.
- 14. Amrita kumari Jha, Manis Kumar Jha, Vinay Kumar and Rina Sahu, Recovery of neodymium (Nd) as value added product NdF3 from Rare earth Magnet, Mineral Processing Technology, 2013, XIII, electronically published.
- 15. Deepjyoti Mukherjee, Brijesh Kumar and Rina Sahu, To study the preparation of Sinter and its effect on blast furnace characteristics, Metallugical & Materials Engineer, Exploitation of Lean Grade Ore, Ore Fines and Urban Ores: Challenges, Problem and Solution, 2013,118-129.
- 16. Sarita Sahu, R.J. Singh, and Rina Sahu, To study the preparation of flow sheet to produce DR grade pellet concentrate from high alumina iron ores of Jharkhand-Orissa Zone, Exploitation of Lean Grade Ore, Ore Fines and Urban Ores: Challenges, Problem and Solution, 2013,135-140.
- 17. Minal Shah, Shoumodip Roy and Rina Sahu, Hybrid Pelletized Sinter, Exploitation of Lean Grade Ore, Ore Fines and Urban Ores: Challenges, Problem and Solution, 2013,146-152.
- 18. Minal Shah Shoumodip Roy and Rina Sahu, Production of Perfect Sinter-need for every blast Furnace, Exploitation of Lean Grade Ore, Ore Fines and Urban Ores: Challenges, Problem and Solution, 2013,153-160.
- 19. M. Trilok Varma and Rina Sahu, Utilization of slag and sludge from steel industries, Proceedings of the National convention of Metallugical & Materials Engineers, National Seminar on Exploitation of Lean Grade Ore, Ore Fines and Urban Ores: Challenges, Problem and Solution, 2013,224-231.
- 20. Anup M, Nitish Ranjan and Rina Sahu, Reclaiming Iron from Solid Wastes via Romely process, Proceedings of the National convention of Metallugical & Materials Engineers, National Seminar on Exploitation of Lean Grade Ore, Ore Fines and Urban Ores: Challenges, Problem and Solution, 2013, 263-273
- 21. Amit Anand and Rina Sahu, Engineering Sustainability: Thermodynamics and the Environment-Exergy Concept, Proceedings of the National convention of Metallugical & Materials Engineers, National Seminar on Exploitation of Lean Grade Ore, Ore Fines and Urban Ores: Challenges, Problem and Solution, 2013, 279-287.
- 22. Rina Sahu, S. Chatterjee and K. L. Sahoo; Mechanical properties and nano-crystallization behaviour of Al-Ni-La alloys, Proceedings of Transaction Materials Society TMS, USA, Vol. 1, Materials processing and properties, 15-19th February 2009, 1, 503-510, electronically published.

# **→**Conference Proceedings (abs)-102 (National-77 and International-25)

# Organise conference/workshop Programs:

- National Conference on Advancement in Materials Processing Technology (AMPT-2020), at Department of Metallurgical and Materials Engineering, National Institute of Technology Jamshedpur, During 31<sup>st</sup> Oct-1 st Nov. 2020, as a convener.
- National Conference on Advancement in Materials Processing Technology (AMPT-2019), at Department of Metallurgical and Materials Engineering, National Institute of Technology Jamshedpur, During 30<sup>th</sup> -31<sup>st</sup> August, 2019, as a convener.
- 3. 6 Days National Workshop on Advancement in Minerals Processing Techniques with special reference to Iron and Coal (AMPTIC-2019),at Department of Metallurgical and Materials Engineering, National Institute of Technology Jamshedpur, During 15<sup>th</sup> July-26<sup>Th</sup> July,2019 as a coordinator.

- 4. 32<sup>nd</sup> National Convention of Metallurgical and Materials Engineering & National Seminar on Advances in Engineering Materials for Sustainable Development, Venue-CSIR-NML Jamshedpur, January 18<sup>th</sup>-19<sup>th</sup>2019 as a co-committee member.
- 5. Workshop on Gender Sensitization, September 29<sup>th</sup>, 2018, Organized by Internal Complaint Committee, National Institute of Technology Jamshedpur
- 6. Member of Organising committee of 20<sup>th</sup> National Conference on Non-Ferrous Minerals & Metals, Hotel Ramada, Jamshedpur, July 8-9<sup>Th</sup> 2016.
- 7. Core Committee Member of Organising Technical Fest, NIT Jamshedpur, OJASS-2016.
- 8. Core Committee Member of Organising Technical Fest and Cultural Fest, NIT Jamshedpur, OJASS-2015 and CULFEST 15.
- 9. Core Committee Member of Organising Technical Fest and cultural Fest, NIT Jamshedpur, OJASS-2014 and UTKARSH-14.
- 10. Core Committee Member of Organising Technical Fest and cultural fest, NIT Jamshedpur, OJASS-2013 and UTKARSH 13.

# **Workshop Attended:**

- 1. Workshop and Interactive Programme entitled "Coal for Metallurgical and Thermal Applications: An Appraisal of its Characterization & Utility (CMTA-18)" during 22-25<sup>th</sup>January2018 at NML campus, Jamshedpur.
- Workshop on teaching effectiveness, ALCOR Hotel, Jamshedpur organised by NIT Jamshedpur, 16th Jan 2014.
- 3. Workshop on Career empowerment of the student OPJIT Raigarh, 22<sup>nd</sup> Jan 2011.
- 4. Workshop on Enterprenership-4 days (OPJIT-2010 and 2011).
- 5. Workshop cum training programme on Investment casting process at CSIR-CMERI Durgapur, 14-19<sup>th</sup> Sept 2006.
- 6. Workshop on Teaching effectiveness, at OPJIT Raigarh, 27-29th 2010.

# Project Guided (CEP,UG, PG, Ph.D):

# CEP (Continuous Education Programme): 2010-2019 semester project guided=24 students

2010 to 2014 batch=09 student, 2015,2016=03+03=06 student

2017-2019=09 students, 2018-2020=09 students

# UG (Under Graduate) total number of student guided(minor & major project)= 68+19=87

2007 -2014 batch=68 (NITJsr + OPJIT Raighar).

2015-2016 batch= 19

# PG (Post Gratuate, M.Tech)

2012-2017 batch = 17 [02(2012) + 02(2013) + 02(2014) + 02(2015) + 04(2016) + 02(2017) + 03(2018)] = 17.

### Ph.D (Doctor of Philosophy)

Batch 2016=01(Full Time), Batch 2018=01 (Part Time), 2019=01 (Full Time), 2020=01 (Full Time),

- 1. Coal and coal ash characterization of Indian Origin coal, Priya Ranjan Mishra [2016RSMM001], Under the supervision of -1. Guide- of Dr. Rina Sahu, NIT Jamshedpur, 2. Co-Guide-Dr. S. Chakarvarty Senior Principal Scientist CSIR-NML.
- 2. Sudhansu Mishra [2018RSMM001], under the supervision of -1. Guide- of Dr. Rina Sahu, NIT Jamshedpur, 2. Co-Guide-Dr. Devinder Singh Padan, Deputy General Manager, Foundry Division, TATA Motor Limited.
- 3. Arbind Kumar [2019RSMM003] Under the supervision of Dr. Rina Sahu, NIT Jamshedpur.
- 4. Rajnish Kumar, Under the supervision Dr. Rina Sahu, NIT Jamshedpur

## Subject Taught (CEP,UG, PG, Ph.D):

### **Course Taught:**

PG- Metal Melting Technology, Advance Foundry Technology.

UG-Foundry Technology, Non-Ferrous Extraction, Iron Making, Material Science, Extraction of Process metallurgy, Heat treatment Science and Technology, Material Degradation, Manufacturing Technology, Fuels and Refractory.

Diploma/CEP- Electronics Material, Materials Engineering, Non-Ferrous Technology, Iron Making, Heat Treatment Technology, Foundry Technology, Industrial Management.

# **Training:**

- 1. M. Tech, Training: Two months Vocational Training at H.E.C, Hatia Ranchi, F.F.P Division and Six months observational training at NML Jamshepur.
- 2. B.Tech, Training: Six months Vocational Training at H.E.C, Hatia Ranchi.

## **Academic Excellence:**

### **Instruments Handled/worked:**

- 1. Differential Scanning Calorimeter,
- 2. Macro and Micro Hardness Testing Machine
- 3. Nano Indentation
- 4. Optical Microscope with Image analyser
- 5. X-ray diffraction system
- 6. Transmission Electron Microscopy
- 7. Atomic Absorption Spectrometer

# **Computer Skill:**

Working knowledge MS Office.

Fortran, C, C++