Prof. Santosh Kumar Sahoo
Professor
Department of Metallurgical and Materials Engineering
National Institute of Technology Rourkela
Rourkela - 769008, Odisha
Telephone No. (O): 0661 246 2566
Mob. No. +919040289501, +919437725907
Email: santoshsahoo@nitrkl.ac.in, sursahoo@gmail.com

EDUCATION

Indian Institute of Technology Bombay, Mumbai, India	**2005-2010**
PhD in Metallurgical Engineering and Materials Science	
Thesis: Heterogeneous Deformation in Zirconium Based Alloys	
Indian Institute of Technology Kharagpur, West Bengal, India	**2001-2003**
M. Tech. in Metallurgical and Materials Engineering	
Indira Gandhi Institute of Technology Sarang, Odisha, India	**1997-2001**
B. E in Metallurgical and Materials Engineering	

EXPERIENCE

National Institute of Technology, Rourkela, Odisha, India	**Feb' 2018 –**
Associate Professor, Department of Metallurgical & Materials Engineering	**Jan' 2023**
National Institute of Technology, Rourkela, Odisha, India	**Jul' 2009 –**
Assistant Professor, Department of Metallurgical & Materials Engineering	**Jan' 2018**
North Carolina State University, Raleigh, NC, USA	**Aug'2010 –**
Postdoctoral Research Associate, Department of Nuclear Engineering	**Dec'2010**
Carnegie Mellon University, Pittsburgh, PA, USA	**Jan'2015 –**
Visiting Scholar, Department of Materials Science & Engineering	**May'2015**

SPONSORED R&D PROJECTS

1. Recrystallization Texture in Titanium Alloys: Funded by DST (Department of Science & Technology), India of Total Budget 12.26 lakhs *(Completed)*.
2. An Investigation on Treatment of Bauxite through Hydrogen Plasma: Funded by NALCO (National Aluminium Company), India of Total Budget 17.19 lakhs *(Completed)*.

3. Mechanical Properties of Titanium and its Alloys from their Textural Aspects: Funded by CSIR (Council of Scientific and Industrial Research), India of Total Budget 7.26 lakhs (*Completed*).
4. Texture Weakening in Magnesium Alloys: Funded by CSIR (Council of Scientific and Industrial Research), India of Total Budget 7 lakhs (*On-going*).

INDUSTRIAL CONSULTANCY PROJECTS (As a Co-Investigator)

1. Third Party Environmental Audit for Issue of "No Increase in Pollution Load" Certificate to the Project Proponent for Changes in Plant Configuration and Product Mix for Aditya Aluminium Ltd., Lapanga, Odisha, 2018, *(Completed).*
2. Issue of "No Increase in Pollution Load" Certificate to the Project Proponent for Enhancement of Tension levelled Coil Production Capacity by 40.8 KTPA and Waste Free Plant Site for Hindalco Industries Ltd., Hirakud FRP, Odisha, 2018, *(Completed).*
3. Fluoride Mass Balance Study of Hindalco Industries Ltd., Hirakud Smelter, Odisha, 2019, *(Completed).*
4. Third Party Environmental Audit for Issue of "No Increase in Pollution Load" Certificate to the Project Proponent for Changes in Plant Configuration for Paradip Refinery Project, IOCL, Odisha, 2019, *(Completed).*
5. Analysis of High Alumina Refractories from Poly Refractories Pvt. Ltd., Rourkela, Odisha, 2019, *(Completed).*
6. Third Party Environmental Audit for Issue of "No Increase in Pollution Load" Certificate to DRI, SMS and Pelletization Unit of Mahavir Ferroalloys Ltd., Kalunga, Rourkela, Odisha, 2020, *(Completed).*

PUBLICATIONS

70 R. Kushwaha, W. Muhammad, U. Ali, S. K. Sahoo, R. K. Sabat, Effect of solute concentration on microstructure evolution during static recrystallization in Mg-0.2%Ce alloy using cellular automata, Materials Today Communications, 37 (2023) 107503, DOI: 10.1016/j.mtcomm.2023.107503.

69 T. Maredla, B. Chaganty, S. S. Bobby, S. K. Sahoo, C. Vanitha, Effect of Cold Rolling on the Microstructure and Texture of Selective Laser Melting Built Fe-Ni-Cr Steel, Journal of Materials Engineering and Performance, Accepted, DOI: 10.1007/s11665-

023-08364-9.

68 S. Jena, R. Dawn, W.-Y. Choi, Y. Singh, A. Ghosh, S.K. Sahoo, M.H. Jung, J. Gardner, V.K. Verma, K. Amemiya, V.R. Singh, Texture, electronic and magnetic states of Mn atoms in polycrystalline MnSi thin films facing a c-sapphire substrate studied by soft X-ray magnetic circular dichroism, Thin Solid Films, 786 (2023) 140097, DOI: 10.1016/j.tsf.2023.140097.

67 D. Panda, R. Kushwaha, R. K. Sabat, S. Suwas, S. K. Sahoo, Microstructure and texture evolution during grain growth of AM30 magnesium alloy, Philosophical Magazine, 102 (21) (2022) 2207-2233, DOI: 10.1080/14786435.2022.2102263.

66 M. Zzaman, R. Dawn, J. B. Franklin, A. Kumari, A. Ghosh, S. K. Sahoo, V. K. Verma, R. Rashid, U. K. Goutam, K. Kumar, R. Meena, A. Kandasami, V. R. Singh, Elevated Transition Temperature of VO2 Thin Films via Cr Doping: A Combined Electrical Transport and Electronic Structure Study, Journal of Electronic Materials, Accepted (2023), 10.1007/s11664-023-10359-0.

65 Rajan Kushwaha, V. Choudhari, P. Dash, W. Muhammad, S. K. Sahoo, S. Gollapudi, R. K. Sabat, Mechanism of precipitation distribution in WE43 alloy, Materials Characterization, 197 (2023) 112660.

64 A. Kumari, M. Zaman, A. Kumar, V.R. Singh , A. Ghosh, S.K. Sahoo, A. Rahaman, Satish K. Mandal, Satyaban Bhunia, An Alternative Approach to Study Photo-catalytic Behavior of TiO2 Using Synchrotron-Based Advanced Spectroscopic Techniques, Journal of Materials Engineering and Performance, (2023), 10.1007/s11665-023-07876-8

63 A. L. S. B. Reddy, S. K. Sahoo, M. Kumar, Studies on characterization of properties of low-grade hematite iron ores and their fired pellets, Iron Making & Steel Making, Accepted (2023), 10.1080/03019233.2023.218093.

62 A. Kumari, A. Kumar, R. Dawn, J. Roy, S. Jena, R. Vinjamuri, D. Panda, S. K. Sahoo, V. K. Verma, S. Mahapatra, A. Rahaman, A. Ahlawat, M. Gupta, K. Kumar, Asokan Kandasami, V. R. Singh, Effect of annealing temperature on the structural, electronic and magnetic properties of Co doped TiO2 nanoparticles: An investigation by synchrotron-based experimental techniques, Journal of Alloys and Compounds, 933 (2023), 167739.

61 R. Vinjamuri, B. D. Bishoyi, R. K. Sabat, M. Kumar, S. K. Sahoo, Microstructure, Texture, and Mechanical Properties of Ti6Al4V Alloy during Uniaxial Tension at

Elevated Temperatures, Journal of Materials Engineering and Performance, Accepted, (2022), 10.1007/s11665-022-07454-4.

60 N. Sahu, D. Panda, S. K. Badjena, S. K. Sahoo, P. K. Kar, Multicomponent Flux for Improved Penetration and Metallurgical Properties Using A-GTAW, Journal of Materials Engineering and Performance, Accepted, (2022), 10.1007/s11665-022-07383-2.

59 R. Dawn, M. Zzaman, F. Faizal, C. Kiran, A. Kumari, R. Shahid, C. Panatarani, I. M. Joni, V. K. Verma, S. K. Sahoo, K. Amemiya, V. R. Singh, Origin of Magnetization in Silica-coated Fe_3O_4 Nanoparticles Revealed by Soft X-ray Magnetic Circular Dichroism, Brazillian Journal of Physics, (2022) 52:99.

58 D. Panda, S. Tripathy, R. K. Sabat, S. Suwas, S. K. Sahoo, An investigation on the correlation between microstructure, texture, and mechanical properties of Mg and its alloys, Journal of Materials Engineering and Performance, 31 (2022) 9183-9199.

57 R. Vinjamuri, B. D. Bishoyi, R. K. Sabat, M. Kumar, S. K. Sahoo, Evidence of homogeneous microstructures in Ti6Al4V alloy during shear deformation, Metallurgical and Materials Transactions A, 53A (2022) 2146.

56 B. Bishoyi, R. Vinjamuri, R. K. Sabat, S. K. Patro, S. Suwas, S. K. Sahoo, Cold drawing of commercially pure titanium and its effect on microstructure and texture evolution, Metallurgical and Materials Transactions A, 53A (2022), 1845.

55 D. Panda, R. K. Sabat, S. Suwas, S. K. Sahoo, Role of temperature and precipitates on the evolution of microstructure and texture during grain growth of Mg–3Al–0.2Ce alloy, Philosophical Magazine, 102 (21) (2022) 1091-1120, DOI: 10.1080/14786435.2022.2030065.

54 P. K. Dwivedi, R. Vinjamuri, S. K. Sahoo, K. Dutta, Investigation on the effect of asymmetric cyclic loading on ratcheting deformation and bulk texture development in HSLA steel, Metals and Materials International, (2022), DOI: 10.1007/s12540-021-01107-2.

53 A. Kumari, A. Kumar, R. Dawn, J. B. Franklin, R. Vinjamuri, S. K. Sahoo, U. K. Goutam, V. K. Verma, R. Meena, A. Kandasami, S. Mahapatra, K. Kumar, A. Kumar, V. R. Singh, Valence band structure of Cr doped VO_2 thin films: A resonant photoelectron spectroscopy study, Journal of Alloys and Compounds, 895 (2022), 162620.

52 R. Dawn, M. Zzaman, R. R. Bharadwaj, C. Kiran, R. Shahid, V. K. Verma, S. K.

Sahoo, K. Amemiya, V. R. Singh, Direct evidence to control the magnetization in Fe_3O_4 thin films by N_2 ion implantation: a soft X-ray magnetic circular dichroism study, Journal of Sol-Gel Science and technology, 99 (2021), 461.

51 P. Srivastava, S. N. Alam, D. Panda, S. K. Sahoo, T. Maity, K. Biswas, Development and mechanical properties investigation of Cu-MWCNT-graphite nanoplatelets hybrid nanocomposites, Diamond and Related Materials, 117 (2021) 108467.

50 B. D. Bishoyi, R. K. Sabat, S. Suwas, S. K. Sahoo, Effect of shear deformation on microstructure and texture evolution in commercially pure titanium, Philosophical Magazine,101 (13) (2021), 1526.

49 L. Kumar, S. N. Alam, S. K. Sahoo, Influence of nanostructured Al on the mechanical properties and sliding wear behavior of Al-MWCNT composites, Materials Science and Engineering B, 269 (2021) 115162.

48 L. Kumar, H. Singh, S. K. Sahoo, S. N. Alam, Effect of nanostructured Cu on microstructure, microhardness and wear behavior of Cu-xGnP composites developed using mechanical alloying, Journal of Composite Materials, 55 (16) (2021) 2237.

47 L. Kumar, S. K. Sahoo, S. N. Alam, Effect of xGnP/MWCNT reinforcement on mechanical, wear behavior and crystallographic texture of copper-based metal matrix composite, Materials Science and Engineering B, 263 (2021) 114888.

46 M. K. Debta, B. D. Bishoyi, R. K. Sabat, W. Muhammad, S. K. Sahoo, Microstructure and texture evolution during annealing of Ti–6Al–4V alloy, Materials Science and Technology, 36 (4) (2020) 417-424, January, 10.1080/02670836.2019.1706816.

45 L. Kumar, S. K. Sahoo, S. N. Alam, Effect of nanostructured Cu on the mechanical properties of Cu –MWCNTs composites, International Journal of Materials Research, 111 (2020) 469.

44 R. Vinjamuri, B. D. Bishoyi, R. K. Sabat, M. Kumar, S. K. Sahoo, Microstructure, texture, mean free path of dislocations and mechanical properties of Ti–6Al–4V alloy during uniaxial compression at elevated temperatures, Materials Science and Engineering A, 776 (2020) 139042.

43 P. Srivastava, S. N. Alam, D. Panda, S. K. Sahoo, T. Maity, K. Biswas, Effect of addition of multiwalled carbon nanotube/graphite nanoplatelets hybrid on the mechanical properties of aluminium, Diamond & Related Materials, 104 (2020) 107715.

42 V. R. Talekar, A. Patra, S. K. Sahoo, Oxidation Behavior of Oxide

Dispersion-Strengthened W–Ni Alloys, Oxidation of Metals, 93 (2019) 17.

41 L. Kumar, S. N. Alam, S. K. Sahoo, Effect of nanostructured Al on microstructure, microhardness and sliding wear behavior of Al–xGnP composites by powder metallurgy (PM) route, International Journal of Materials Research, 110 (2019) 954.

40 V. R. Talekar, A. Patra, S. K. Sahoo, S. K. Karak, B. Mishra, Fabrication and characterization of nano-Y_2O_3, Al_2O_3, La_2O_3 dispersed mechanically alloyed and liquid phase sintered W – Ni for structural application, International Journal of Refractory Metals and Hard Materials, 82 (2019) 183.

39 S. K. Sahoo, J. N. Tiwari, B. Mishra, S. Sarma, P. Pragnya, U. K. Mohanty, Prediction of Flow Characteristics of Al_2O_3-CaO-MgO-SiO_2-TiO_2 type Blast Furnace Slag and Its Evaluation, Arabian Journal for Science and Engineering, 44 (2019) 6393.

38 T. Sarkar, A. K. Pramanick, S. K. Sahoo, T. K. Pal, A. K. Pramanick, Influence of austempering temperature and time on the microstructure and mechanical properties of ductile iron weldment using developed coated electrode, Journal of Materials Engineering and Performance, 28 (2019) 2071.

37 D. Panda, R. K. Sabat, S. Suwas, V. D. Hiwarkar, S. K. Sahoo, Texture weakening in pure magnesium during grain growth, Philosophical Magazine, 99 (11) (2019) 1362.

36 K. Kumar, M. Masanta, S. K. Sahoo, Microstructure evolution and metallurgical characteristic of bead-on-plate TIG welding of Ti-6Al-4V alloy, Journal of Material Processing Tech., 265 (2019) 34.

35 R. Hariharan, S. K. Sahoo, I. Samajdar, P. Gopalan, Correlation between microstructure and electrical properties of A-site substituted YAlO3 ceramics, Materials Science and Engineering B, 231 (2018) 66.

34 R. K. Sabat, M. V. S. S. D. S. Surya Pavan, D. S. Aakash, M. Kumar, S. K. Sahoo, Mechanism of texture and microstructure evolution during warm rolling of Ti-6Al-4V alloy, Philosophical magazine, 98 (2018) 2562.

33 B. D. Bishoyi, R. K. Sabat, S. K. Sahoo, Effect of temperature on microstructure and texture evolution during uniaxial compression of commercially pure titanium, Materials Science and Engineering A, 718 (2018) 398.

32 A. Patra, R. R. Sahoo, S. K. Karak, S. K. Sahoo, Effect of nano Y_2O_3 dispersion on thermal, microstructure, mechanical and high temperature oxidation behavior of mechanically alloyed W-Ni-Mo-Ti, International Journal of Refractory Metals and Hard Materials, 70 (2018) 134.

31 A. Pati, S. K. Sahoo, B. Mishra and U. K. Mohanty, Viscosity of industrial blast furnace slag in Indian scenario, Transactions of IIM, 71(4) (2018) 801.

30 R. K. Sabat, S. K. Sahoo, B. D. Bishoyi, N. Bibhanshu, S. Suwas, Improvement in mechanical properties of commercially pure titanium through reverse rolling, Philosophical Magazine Letters, 97 (2017) 273.

29 B. R. Parhi, S. K. Sahoo, M. Sahu, B. D. Bishoyi, S. C. Mishra, B. Bhoi and B. Mishra, Physicochemical investigations of high iron bauxite for application of refractive and ceramics, Metall. Res. Technol., 114(3) (2017) 307.

28 J. Mishra, S. Sahni, R. K. Sabat, V. D. Hiwarkar, S. K. Sahoo, Effect of cross-rolling on microstructure, texture and magnetic properties of non- oriented electrical steels, Materials Research, 20 (2017) 218.

27 S. K. Sahoo, B. D. Bishoyi, U. K. Mohanty, Sushant K. Sahoo, J. Sahu and R. N. Bathe, Effect of Laser Beam Welding on Microstructure and Mechanical Properties of Commercially Pure Titanium, Transactions of IIM, 70 (2017) 1817.

26 A. Patra, R. Saxena, S. K. Karak, T. Laha, S. K. Sahoo, Fabrication and characterization of nano-Y_2O_3 dispersed W-Ni-Mo and W-Ni-Ti-Nb alloys by mechanical alloying and spark plasma sintering, Journal of Alloys and Compounds, 707 (2017) 245.

25 R. K. Sabat, S. K. Sahoo, An 'ex situ' electron backscattered diffraction study of nucleation and grain growth in pure magnesium, Materials and Design, 116 (2017) 65.

24 R. K. Sabat, D. Panda, S. K. Sahoo, Growth mechanism of extension twin variants during annealing of pure magnesium: An 'ex situ' electron backscattered diffraction investigation, Materials Characterization, 126 (2017) 10.

23 B. D. Bishoyi, R. K. Sabat, J. Sahu, S. K. Sahoo, Effect of temperature on microstructure and texture evolution during uniaxial tension of commercially pure titanium, Materials Science and Engineering A, 703 (2017) 399.

22 S. K. Sahoo, R. K. Sabat, S. Panda, S. C. Mishra, S. Suwas, Texture and microstructure evolution of pure zinc during rolling at liquid nitrogen temperature and subsequent annealing, Materials Characterization, 123 (2017) 218.

21 L. Kumar, S. N. Alam, S. K. Sahoo, Mechanical properties, wear behavior and crystallographic texture of Al-multiwalled carbon nanotube composites developed by powder metallurgy route, Journal of Composite Materials, 51 (2017) 1099.

20 B. R. Parhi, S. K. Sahoo, S. C. Mishra, B. Bhoi, R. K. Paramguru, B. K. Satpathy,

Upgradation of bauxite by molecular hydrogen and hydrogen plasma, International Journal of Minerals, Metallurgy and Materials, 23 (2016) 1141.

19 S. K. Sahoo, R. K. Sabat, S. Sahni, S. Suwas, Texture and microstructure evolution of commercially pure titanium during hot rolling: Role of strain-paths, Materials and Design, 91 (2016) 58.

18 S. K. Sahoo, R. K. Sabat, B. D. Bishoyi, A. G. S. Anjani, S. Suwas, Effect of strain-paths on mechanical properties of hot rolled commercially pure titanium, Materials Letter, 180 (2016) 166.

17 S. K. Sahoo, S. Panda, R. K. Sabat, G. Kumar, S. C. Mishra, U. K. Mohanty, S. Suwas, Effect of preannealing strains on annealing texture developments in commercially pure (CP) titanium, Philosophical Magazine, 95 (10) (2015) 1105.

16 S. K. Sahoo, R. K. Sabat, S. Panda, S. C. Mishra, S. Suwas, Mechanical property of pure magnesium: From orientation perspective pertaining to basal orientations, Journal of Materials Engg. and Performance, 24 (2015) 2346.

15 D. Prusty, H. K. Pradhan, V. D. Hiwarkar, S. K. Sahoo, Directional properties of cold rolled non-oriented electrical steel sheets, Transactions of the IIM, 67 (1) (2014) 131.

14 S. Panda, S. K. Sahoo, A. Dash, M. Bagwan, G. Kumar, S. C. Mishra, S. Suwas, Orientation dependent mechanical properties of commercially pure (CP) titanium, Materials Characterization, 98 (2014) 94.

13 S. K. Sahoo, J. N. Tiwari, U. K. Mohanty, A statistical approach for estimation of fusion behavior of alumino-thermic ferrochrome slags, Metallurgical and Materials Transactions B, 44 (2013) 1371.

12 N. T. Kumbhar, S. K. Sahoo, I. Samajdar, G. K. Dey, K. Bhanumurthy, Microstructure and microtextural studies of friction stir welded aluminium alloy 5052, Materials & Design, 32 (3) (2011) 1657-1666, October, 10.1016/j.matdes.2010.10.010.

11 V. D. Hiwarkar, S. K. Sahoo, I. Samajdar, A. Satpathy, G. K. Dey, D. Srivastav, R. Tewari, S. Banerjee, Defining recrystallization in pilgered zircaloy 4: From preferred nucleation to growth inhibition, Journal of Nuclear Materials, 412 (3) (2011) 287-293, February, 10.1016/j.jnucmat.2011.02.043.

10 K. V. Mani Krishna, R. Raghavan, D. Srivastava, G. K. Dey, S. K. Sahoo, I. Samajdar, Study of evolution of dislocation structure with the deformation in zirconium alloys, Transactions of the IIM, 64(3) (2011) 309-313, June, 10.1007/s12666-011-0063-z.

9 S. K. Sahoo, V. D. Hiwarkar, K. V. ManiKrishna, I. Samajdar, P. Pant, P. K. Pujari, G.

K. Dey, D. Srivastav, R. Tewari, S. Banerjee, Grain fragmentation and twinning in deformed zircaloy 2: Response to positron lifetime measurements, Materials Science and Engineering A, 527 (6) (2010) 1427-1435, October, 10.1016/j.msea.2009.10.066.

8 S. K. Sahoo, V. D. Hiwarkar, L. Jain, I. Samajdar, P. Pant, G. K. Dey, D. Srivastav, R. Tewari, S. Banerjee, Deformed microstructures of two-phase Zr-2.5Nb alloy: Effects of the second phase hardness, Journal of Nuclear Materials, 404 (3) (2010) 222-230, July, 10.1016/j.jnucmat.2010.07.028.

7 S. K. Sahoo, V. D. Hiwarkar, I. Samajdar, P. Pant, G. K. Dey, D. Srivastav, R. Tewari, S. Banerjee, Deformation twinning in zircaloy 2, Materials Science and Technology, 26 (1) (2010) 104-114, December, 10.1179/174328408X393396.

6 V. D. Hiwarkar, S. K. Sahoo, K. V. ManiKrishna, I. Samajdar, G. K. Dey, D. Srivastav, R. Tewari, S. Banerjee, R. D. Doherty, Coarsening of second phase in a two-phase Zr-2.5Nb: On the role of phase boundary, Acta Materialia, 57 (19) (2009) 5812-5821, August, 10.1016/j.actamat.2009.08.007.

5 S. K. Sahoo, V. D. Hiwarkar, A. Majumdar, I. Samajdar, P. Pant, G. K. Dey, D. Srivastav, R. Tewari, S. Banerjee, Presence and absence of significant twinning: Effects on cold deformed microstructures of single-phase zircaloy 2, Materials Science and Engineering A, 518 (1-2) (2009) 47-55, May, 10.1016/j.msea.2009.05.025.

4 L. Aditya, A. Srivastava, S. K. Sahoo, P. Das, C. Mukherjee, A. Mishra, V. R. Reddy, R. S. Shinde, Ajay Gupta, Shiva Prasad, I. Samajdar, R. V. Nandedkar, N. Venkataramni, Growth of textured nanocrystalline cobalt ferrite thin films by pulsed laser deposition, Journal of Nanoscience and Nanotechnology, 8 (8) (2008) 4135-4140, August, 10.1166/jnn.2008.AN46.

3 V. D. Hiwarkar, S. K. Sahoo, I. Samajdar, K. Narasimhan, K. V. ManiKrishna, G. K. Dey, D. Srivastav, R. Tewari, S. Banerjee, Annealing of cold worked Zr-2.5Nb – Associated Microstructural developments, Journal of Nuclear Materials, 384 (1) (2008) 30-37, October, 10.1016/j.jnucmat.2008.10.006.

2 K. V. ManiKrishna, S. K. Sahoo, I. Samajdar, S. Neogy, R. Tewari, D. Srivastav, G. K. Dey, Gaur Hari Dash, N. Saibaba, S. Banerjee, Microstructural and textural developments during zircaloy 4 fuel tube fabrication, Journal of Nuclear Materials, 383 (1-2) (2008) 78-85, September, 10.1016/j.jnucmat.2008.08.050.

1 S. K. Sahoo, V. D. Hiwarkar, I. Samajdar, G. K. Dey, D. Srivastav, R. Tewari, S. Banerjee, Heterogeneous deformation in single-phase zircaloy 2, Scripta Materialia,

56(11) (2007), 963-966, February 10.1016/j.scriptamat.2007.02.008.

PATENTS

1. S. K. Sahoo, U. K. Mohanty, B. Mishra, S. C. Mishra, S. Sarkar, A Process for the Determination of Characteristic Temperatures of Blast Furnace Slag, Application Number: 201631037069, Granted on 03 November 2020.
2. B. R. Parhi, S. K. Sahoo, S. C. Mishra, U. K. Mohanty, B. Bhoi, S. Kar, P. Bandopadhyay, A Process for Beneficiation of Bauxite Ore to Obtain an Upgraded Alumina, Application Number: 201731039417, Granted on 08 February 2023.

AWARDS AND RECOGNITION

- TRA-SDT Faculty Fellowship Award 2014 to Visit Carnegie Mellon University, Pittsburgh, USA from January – May 2015.
- Postdoctoral Research, Dept. of Nuclear Engg., North Carolina State University, Raleigh, NC, USA from August – December 2010.
- Best poster presentation at Microstructure-2009 Conference, BARC, Mumbai, 2009.
- Best poster presentation at NMD-ATM 2007 Conference, BARC, Mumbai, 2007.

PhD SUPERVISION

Sl. No	Name of the Student	Title of Thesis	Status	Role
1	Suryakant Panda	Recrystallization Textures in HCP Metals	Awarded	Principal Supervisor
2	Srikar Potnuru	Numerical, Analytical and Experimental Analysis of Combined Extrusion Forging Processes Applied to Collet Chuck Holders	Awarded	Co-Supervisor
3	Lailesh Kumar	Development of Cu and Al-Based Metal Matrix Composites using Graphite	Awarded	Co-Supervisor

		Nanoplatelets and Multiwalled Carbon Nanotubes as Reinforcement		
4	Bikash Ranjan Parhi	Reduction of Bauxite through Hydrogen: Future Method of Extraction of Aluminium	Awarded	Principal Supervisor
5	Bibhudutta Bishoyi	Effect of Deformation Conditions on the Texture and Microstructure Evolutions in Commercially Pure Titanium	Awarded	Principal Supervisor
6	Deepankar Panda	Grain Growth Texture and Microstructure of Magnesium and its Alloys	Awarded	Principal Supervisor
7	Raviteja Vinjamuri	Effect of Deformation Conditions on the Texture and Microstructure Evolutions in Ti-6Al-4V Alloy	Awarded	Principal Supervisor
8	Adiraj Behera	Extraction of Ferromanganese and Manganese Oxides from Lean Manganese Ores	On-going	Principal Supervisor
9	Aditya S. Routray	Value Addition to Chromite Overburden	On-going	Principal Supervisor
10	Gourahari Das	Microstructure and Texture Evolution in Ti Alloys during Pilgering	On-going	Principal Supervisor
11	Patel Parth Prakashbhai	Value Addition to the Industrial Wastes	On-going	Principal Supervisor