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[Web of Science](#)



[Scopus](#)



[ORCID](#)



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1 Education

- **Ph.D.** (2014 – 17) in Metallurgical and Materials Engineering from [NIT Rourkela](#).
- **M.E.** (2011 – 13) in Materials Engineering from [IISc Bangalore](#) with CGPA **7.9 (Out of 8)** – Rank 1 ([Gold medalist](#)).
- **B.Tech** (2006 – 10) in Metallurgical and Materials Engineering from [NIT Rourkela](#) with CGPA **9.19 (Out of 10)** – Rank 1 ([Silver medalist](#)).
- **Intermediate (10+2)** (2005) in Science from [BJB Junior College, Bhubaneswar](#) (Council of Higher Secondary Education, Orissa) with **92.22%**.
- **Matriculation** (10th) (2003) from Saraswati Vidya Mandir, Puri (Board of Secondary Education, Orissa) with **91.73%** - Rank 1 (*Silver medalist*)

2 Summary of Research Credentials (as on 15th August 2026)

Researcher ID: [I-8755-2016](#) , **Scopus ID:** [55885925900](#) ,
Google Scholar ID: [6j249pEAAAAJ&hl=en&oi](#)

- No. of Publications:

SCI articles – 101,

Authored Books – 03,

Book Chapters – 06

IP Details – 1 (Granted), 3 (Filed)

- No. of SCI manuscripts reviewed – 139
- h-index: **26** (Web of Science) **29** (Scopus) **31** (Google Scholar)
- Total citations: **2141**(Web of Science) **2493** (Scopus) **2962** (Google Scholar)

3 Awards and Achievements

- Ranked among the **World’s Top 5% Scientists** in 2025 by [SciRank Global](#).
- Ranked 3 in the research specialty of “Glass fiber” by [ScholarGPS](#) in the year 2025 during Prior Five Years evaluation period.

- Received the [Young Scientist award](#) for “Outstanding Contribution in Engineering & Technology category” by Odisha Bigyan Academy for the year 2023 from the **Hon’ble Chief Minister of Odisha Shri Mohan Charan Majhi** on 28th March 2025 at the Lok Seva Bhawan Convention Hall, Bhubaneswar.
- Our Team Interface Icon (comprising of Faculties: Prof. B C Ray, Dr. R K Prusty, Students: Mr. S Pattnaik, Mr. BNVS Ganesh Gupta) received [2nd runner up](#) award worth cash prize of ₹ 1,00,000 for the **Material Next 4.0**, the flagship event of Tata Steel on May 11, 2023.
- Received [Faculty advisor appreciation award](#) for “commendable work in guiding students as faculty advisor” for the session 2021-22 from the Director, NIT Rourkela on 15th October, 2022.
- [All India Rank 1](#) in Metallurgical Engineering GATE 2011.
- Awarded [Scholarship of ₹1,00,000](#) for pursuing higher study by [JSL Stainless Ltd](#), Hisar , India.
- Awarded [K K Malik Gold Medal](#) for being the **best graduate** from Materials Engineering (M.E.), [IISc, Bangalore](#) 2011-13 batch.
- Awarded [Institute Silver Medal](#) for being the **First rank** holder from Metallurgical & Materials Engineering (B.Tech.), [NIT, Rourkela](#) 2006-10 batch.
- Secured a [SGPA of 8/8](#) in 1st Semester during M.E. at [IISc, Bangalore](#).
- Secured a [SGPA of 10/10](#) in 8th Semester during B.Tech. at [NIT, Rourkela](#).
- Awarded **Silver Medal** for being the first rank holder in Matriculation exam from school.

4 Regular Reviewer of

- Composites Science and Technology (Elsevier)
- Construction and Building Materials (Elsevier)
- Composites Part A: Applied Science and Manufacturing (Elsevier)
- Chemical Engineering Journal (Elsevier)
- Mechanics of Materials (Elsevier)
- Journal of Adhesion Science and Technology (Taylor & Francis)
- Journal of Applied Polymer Science (Wiley)
- Polymer Composites (Wiley)
- Steel and Composite Structures (Techno-Press)

- Journal of Composite Materials (Sage)
- Journal of Thermoplastic Composite Materials (Sage)
- Transactions of the Indian Institute of Metals (Springer)

5 Current Research Interests

- Development of nano-phased FRP Composites
- CNT alignment in fibrous polymeric composites
- Carbon fiber surface modification by Electrophoretic deposition
- Development of Advanced Fiber Metal Laminates (FMLs) for structural applications
- Development of FRP composite for ballistic applications
- Recycling and reuse of FRP Composites
- Durability analysis of FRP composites in various harsh and hostile environments
- Study of in-service environmental temperature effects on FRP Composites
- Sea water durability of FRP Composites

6 Courses Teaching/Taught

- [Nanostructured Materials](#) – Theory (UG)
- [Composite Materials](#) – Theory (UG & PG)
- [Polymer and Composite Materials](#) – Lab (UG)
- Product Development laboratory (UG)
- Joining of Metals – Theory (UG)
- Seminar and Technical Writing – Lab (UG)
- Phase Transformation laboratory (PG)

7 Academic Experience

- Presently continuing as an **Assistant Professor** in Metallurgical and Materials Engineering dept. at [NIT, Rourkela](#) since March 2014.
- Served Mechanical Engineering dept., [KIIT University](#), Bhubaneswar as an **Assistant Professor** for 8 months during July 2013 – Feb 2014

8 Industrial Experience

- Served [JSL Stainless Ltd](#), Hisar, India as a Graduate Engineer Trainee (**GET**) for one year during July 2010- June 2011.

Responsibilities assigned during the job period: Costing, Analysis of casting defects and possible remedial measures, Optimization of processing parameters of Steel Melting Shop, Maximization of Chromium and Manganese recovery in Steel Melting Shop. Analysis of feasibility of new grade processing.

9 Past Research Experience

- Ph.D. thesis (2017): **Implication of CNT Fillers on Environmental Durability of GFRP Composites: An Evaluation of Microstructural Features and Mechanical Properties** at [NIT, Rourkela](#) under supervision of [Prof. B C Ray](#).
- Master's degree (2013): **Nanoindentation of Ni-gyroids** at [IISc, Bangalore](#) under supervision of [Prof. U Ramamurty](#) (*FNAE, FASc, FNA, FTWAS, Shanti Swarup Bhatnagar awardee-2011*).

10 Sponsored Projects

1. **Project Title:** [Development of CNT grafted carbon fiber tows and fabrics: Emphasis on roll to roll continuous and scalable process.](#)
Funding Agency: AR&DB, DRDO.
Cost (in lacs of ₹): 39.36
Duration: May, 2026 to May, 2029 (Continuing).
Role: Co-Principal Investigator
2. **Project Title:** [Hierarchical Hybrid FRP Composites with multiscale reinforcements as Structural Materials for Type IV & Type V Hydrogen Storage Tank.](#)
Funding Agency: Tata Steel Ltd.
Cost (in lacs of ₹): 12.96
Duration: July, 2024 to Jan, 2026 (Completed).
Role: Principal Investigator
3. **Project Title:** [Development of effective technical solutions for recycling of industrial FRP wastes and end-of-life FRP components.](#)
Funding Agency: Tata Steel Ltd.
Cost (in lacs of ₹): 36.46
Duration: April, 2022 to June, 2025 (Completed)
Role: Principal Investigator

4. **Project Title:** [Using industrial wastes and thermally reclaimed glass fiber as a potential reinforcement in GFRP composites.](#)
Funding Agency: Material NXT, TATA Steel
Cost (in lacs of ₹): 0.52
Duration: February, 2022 to April, 2022 (Completed).
Role: Mentor
5. **Project Title:** [Development of glass fiber and aluminium reinforced interpenetrating polymer network composites through nanofiller modification.](#)
Funding Agency: TEQIP – III (NIT Rourkela).
Cost (in lacs of ₹): 2.00
Duration: January, 2020 to September, 2020 (Completed).
Role: Principal Investigator
6. **Project Title:** [Environmental impacts on the Mechanical, Thermal and Electrical performance of CNT embedded fibrous polymeric composites: Effects of through thickness CNT alignment.](#)
Funding Agency: Science and Engineering Research Board (SERB), Govt. of India.
Cost (in lacs of ₹): 20.29
Duration: March, 2019 to March, 2022 (Completed).
Role: Principal Investigator
7. **Project Title:** [Moisture uptake kinetics and its subsequent effect on mechanical performance of nano-phased fibrous polymeric composites.](#)
Funding Agency: Council of Scientific and Industrial Research (CSIR), Govt. of India.
Cost (in lacs of ₹): 5.50
Duration: August, 2017 to August, 2020 (Completed).
Role: Principal Investigator
8. **Project Title:** [Effect of Hygrothermal conditioning and cycling on CNT embedded GFRP composite: A Study on marine environment durability.](#)
Funding Agency: Naval Research Board (NRB), DRDO, Govt. of India.
Cost (in lacs of ₹): 11.88
Duration: November, 2016 to March, 2020 (Completed).
Role: Principal Investigator

9. **Project Title:** [An investigation on environmental durability of nanofiller embedded FRP composites.](#)

Funding Agency: TEQIP – II (NIT Rourkela)

Cost (in lacs of ₹): 6.34

Duration: August, 2016 to March, 2017 (Completed).

Role: Principal Investigator

10. **Project Title:** [Effect of environmental conditioning on mechanical and failure behaviour of modified structural FRP composites.](#)

Funding Agency: TEQIP – II (NIT Rourkela)

Cost (in lacs of ₹): 7.09

Duration: October, 2014 to March, 2016 (Completed).

Role: Principal Investigator

11 Consultancy Projects

1. **Project Title:** Feasibility to use Indigenous Coke for manufacturing of Ferrochrome with low-phosphorous.

Funding Agency: M/s Indian Metals and Ferro-Alloys.

Cost (in lacs of ₹): 5.02

Duration: September, 2023 to October, 2023.

Role: Co-consultant

2. **Project Title:** A study of FRP (focus on carbon, glass and polymer fiber reinforcements) composites for structural applications in modern India: Feasibilities and Opportunities.

Funding Agency: TATA Steel.

Cost (in lacs of ₹): 1.52

Duration: October, 2016 to October, 2018.

Role: Co-consultant

12 Thesis Supervision

12.1 Ph.D.

Name of the Scholar

Title of the Thesis

Role

1. [Pavan Kumar Gangineni](#)
(516MM9013) – Awarded in 2022
Mechanical Behavior of Graphene Nanofiller Grafted Carbon Fiber Reinforced Polymer Composites
Co-Supervisor
2. [Srinivasu Dasari](#)
(517MM1006) – Awarded in 2023
Influence of Temperature on Mechanical Performance of Glass Fiber/epoxy Composite with Continuous and Discontinuous Secondary Carbon Fiber Reinforcement
Supervisor
3. [Shubham](#) (518MM1004) – Awarded in 2023
High Strain-Rate Compressive Behaviour of Plain Weave Fiber/Epoxy Composites: Numerical Simulation and Experimentation
Co-Supervisor
4. [Abhinav Omprakash Fulmali](#)
(518MM1008) – Awarded in 2023
Effect of Carbon Nanotube Functionalization and Alignment on the Out-of-Plane Mechanical Performance and Environmental Durability of GFRP Composites
Supervisor
5. [BNVS Ganesh Gupta K](#)
(518MM1005) – Awarded in 2023
Mechanical Bhavior Studies of Interpenetrating Polymer Network Based Hierarchical Composites Incorporating Glass Fiber, Nano-Al₂O₃ and Al Alloy Reinforcements
Co-Supervisor
6. **Bibhu Prasanna Sahoo**
(919MM5079) – Advance Stage
Multiscale FRP Composites with improved interfacial bonding for cryogenic applications
Supervisor

7. **Devalingam Santhosh Kumar** (922MM5001) – Progress Interface engineering of FRP Composites through fiber modification route Supervisor
8. **Parimal Jana** (523MM1002) z-directional Graphene alignment in laminated FRP composites Supervisor
9. **Pankaj Kumar** (523MM1003) Advanced Fiber-Metal laminates for Aerospace applications Co-Supervisor
10. **Gandi Rohith** (523MM6004) Development of Effective recycling techniques for FRP Composites Supervisor
11. **Enamul Hussain Khan** (524MM1001) CNT synthesis on fiber surface and its use in laminated composites Supervisor
12. **Tanmoy Adhikary** (524MM3002) Basalt fiber based Composite development Co-Supervisor

12.2 PG: M.Tech/Dual degree Thesis

S. No.	Name and Roll No.	Thesis Title	Year	Role
31	Shreesh Kumar Das (721MM1045)	Evaluation of Flexural, Compression, and Impact Properties of FRP Sandwich Panels with aluminium honeycomb core along with Elevated Temperature bending and Creep performance of CFRP-Aluminium Honeycomb Sandwich panel	2026	Supervisor
30	Asthapuram Venkat Surya (720MM1012)	Elevated Temperature Flexural and Creep Performance of 3-D nanophased GFRP Composites with z-direction aligned Functionalized CNTs	2025	Co-supervisor
29	Enamul Hussain Khan (222MM1234)	Reclaiming glass fibers from waste GFRP composites through microwave assisted chemical recycling	2024	Supervisor

		technique and its reuse for developing laminated composites		
28	Archit Kumar (221MM1547)	Development of Cost Effective Lightweight and Sustainable Materials for Commercial Automotive Vehicle	2023	Supervisor
27	Ashoktez Ramprasad Balaboina (220MM1627)	Tribological behavior of discontinuous carbon fiber reinforced epoxy composite with binary nano filler	2022	Supervisor
26	Shubham Ramesh Rao Maske (220MM1087)	Study of anti-corrosion properties of graphene-coated steel substrate	2022	Supervisor
25	Pankaj Yadav (220MM1445)	Enhancement in Mode-I, Mode-II interlaminar fracture toughness and flexural properties of glass/epoxy composites at ambient and elevated temperatures by using nanoclay	2022	Co-supervisor
24	S P Santanu (717MM1022)	Using thermally recycled glass fibers obtained from industrial wastes as a potential reinforcement in GFRP composites to improve its mechanical properties	2022	Supervisor
23	Soumya Sumit Dash (219MM1408)	Effect of fibre polarity during electrophoretic deposition of graphene oxide on carbon fibre and evaluation of mechanical behaviour of composite	2021	Supervisor
22	Ritupurna Sahoo (716MM1117)	Durability Analysis of Single Lap Joint FRP Composites using Carbon Nanotube Reinforced Epoxy Adhesives at Different Temperatures	2021	Co-supervisor

21	Avadesh Yadav (218MM1257)	Mechanical properties of CNT embedded fiber reinforced polymer composite at various temperatures: A comparative analysis through different processing techniques	2020	Supervisor
20	Hiremath Mritunjay M (218MM1253)	Mechanical Characterization of nano titania reinforced Fiber Metal Laminates for Structural Applications	2020	Co-supervisor
19	Sushant Saurabh (218MM1479)	Enhancement in Mode I interlaminar fracture toughness of glass/epoxy composites by using multiscale composite approach	2020	Co-supervisor
18	Satyaroop Patnaik (715MM1108)	Interlaminar performance of cryogenically conditioned CFRP composites modified by graphene based nanofillers via electrophoretic deposition	2020	Supervisor
17	Bhaskar Sen (715MM1154)	Techniques to enhance the mechanical properties of carbon nanotube embedded glass fibre reinforced epoxy composites	2020	Co-supervisor
16	Sagar Yandrapu (217MM1417)	Effect of bath concentration and current during electrophoretic deposition process on the properties of CFRP composite	2019	Supervisor
15	N Jyoti Krishna (714MM1100)	Nano Silica hybridized Graphene Oxide: Suitability analysis for reinforcing FRP composites	2019	Supervisor
14	Nuli Krishna Chaitanya (217MM1360)	Evaluation of mechanical, thermal properties and water uptake kinetics of Pristine and Functionalized Carbon nanotube incorporated glass fiber reinforced epoxy composite under different harsh environments	2019	Co-supervisor

13	Soubhik De (714MM1131)	Interphase Modification of CFRP composite by Electrophoretic deposition by carbon based nanofillers and its impact at different service temperatures	2019	Co-supervisor
12	Abhinav O. Fulmali (216MM1430)	Effect of CNT/CNT-COOH addition on Creep performance and water absorption behaviour of embedded glass fiber/epoxy composites	2018	Supervisor
11	Kattaguri Rani (216MM1426)	Resistance of CNF modified glass fiber/epoxy composites towards various corrosive fluids	2018	Co-supervisor
10	Abhijeet Anand (713MM1109) DUAL	Graphene oxide embedded GFRP composites: A feasibility study for Marine applications	2018	Supervisor
9	Poulami Banerjee (713MM1132) DUAL	Development of multi-scale GFRP composites using Nano-silica functionalized Graphene oxide	2018	Co-supervisor
8	Debaraj Sahoo (215MM1242)	Effect of Humid Ageing on the Durability of Functionalized CNT Embedded GFRP Composite	2017	Supervisor
7	Pradeep Kumar Biswal (215MM1425)	Mechanical Performance of Glass/Carbon Hybrid Polymer Composites under Cryogenic Temperature and Humid Environments	2017	Co-supervisor
6	Sohan Kumar Ghosh (712MM1117) DUAL	Flexural and creep performance of graphene oxide reinforced glass fiber/epoxy composite at elevated temperatures	2017	Supervisor
5	Sai Seetha Ram Nomula (712MM1168) DUAL	Durability assessment of Carbon nano tubes embedded glass fiber reinforced polymer composites at elevated temperature and different corrosive environments	2017	Co-supervisor

4	Bhanu Pratap Singh (214MM2361)	Mechanical performance evaluation of carbon nanotube reinforced polymer nanocomposites at above ambient temperature environments	2016	Supervisor
3	Sarat Chandra Mohanty (214MM1340)	Development of CNT modified GFRP composite and assessment of its elevated temperature mechanical performance	2016	Co-supervisor
2	Devalingam Santhosh Kumar (213MM1470)	A new generation fibre reinforced polymer composites for low and cryogenic temperature applications	2015	Supervisor
1	Meet Jayesh Shukla (213MM1474)	Elevated temperature performance of hybrid polymer composites	2015	Co-supervisor

12.3 B.Tech Thesis

S. No.	Name and Roll No.	Thesis Title	Year	Role
37	Aarindom sen (122MM0460),	Flexural, Creep and Viscoelastic behavior of CNT Reinforced Epoxy Nanocomposites	2026	Supervisor
	Kanhaiya Goyal (122MM0924)			
36	Guguloth Karthik (122MM0686)	Flexural and Viscoelastic Performance of Glass Fiber Reinforced Polymer Composite	2026	Supervisor
35	Ashutosh Maurya 122MM0928)	Improving the mechanical performance of Flax fibre/epoxy composites through alkaline surface treatment of fibre and incorporation of secondary recycled glass fibre	2026	Supervisor
	Shivam Dhruwey (122MM0923)			
34	Vaibhav Verma (122MM0937)	Effect of Temperature on Interlaminar Fracture Toughness of Glass Fiber/Epoxy Composites	2026	Co-Supervisor

		Reinforced With Aligned Functionalized Carbon Nanotubes		
33	Shashwat Bhardwaj (121MM0802)	Surface Modification technique of glass fibres	2025	Supervisor
32	Bhakti Bedanta Giri (121MM0516)	Flexural behavior of pre-tensile strain GFRP	2025	Supervisor
31	Purva Bhangale (121MM0511)	Implication of Hot Pressing- and Post Curing-Temperatures on Alkaline Treated Hemp Fiber Reinforced Epoxy Composites	2025	Co-Supervisor
30	Abinash Mishra (120MM0769)	Effects of through-thickness CNT alignment on the flexural and creep performance of GFRP composite laminates	2024	Supervisor
29	Chonga Ganesh Naidu (120MM0771)	Effect of low velocity impact on the Flexural behaviour of GFRP composites	2024	Co-Supervisor
	Ajmeera Nikhil (120MM0918)			
28	Satyajit Panda (119MM0008)	Development and Characterization of Mesoporous Wollastonite – Chitosan based Scaffold	2023	Supervisor
27	Anshuman Oram (119MM0399)	Elevated Temperature Mechanical Performance of EPD Modified Carbon Fiber/Polymer Composite	2023	Supervisor
	Soumya Dash(119MM0749)			
	Alyal Samal (119MM0763)			
26	Tanaya Sahoo (118MM0546)	Flexural behavior of polymer nanocomposites with aligned carbon nanofibres	2022	Supervisor

25	Baishakh Mishra (118MM0531)	Tensile Performance of Glass Fiber/Epoxy Laminated Composite after Drop Weight Impact	2022	Supervisor
24	Biswajeet Prusty (118MM0756)	Influence of the Interphase Properties on the Unidirectional Glass Fibre/Epoxy Composite under Single Particle Impact: A Finite Element Micromechanical Approach	2022	Co-supervisor
	Mridul Totla (118MM0785)			
23	Shiny Lohani (117MM0619)	Mechanical Behavior of Glass/Epoxy composites modified with MWCNT and MLG	2021	Supervisor
22	B Arnimesh Nayak (117MM0629)	Effect of Matrix Modification and Alignment Techniques on the mechanical properties of FRP Composite	2021	Supervisor
21	Supreet Mohanty (117MM0626)	Investigation of Elastic Properties of Titanium Dioxide from First principles	2021	Supervisor
20	Bandi Manohar (117MM0622)	Effect of Aluminium Powder Addition on the Thermal Behaviour of Short Carbon Fibre Reinforced Epoxy Composites	2021	Supervisor
19	Ankush Gautam (117MM0688)	Effect of Cure Parameters on Vinyl ester Polymer	2021	Co-supervisor
18	Lavudya Saikiran (116MM0545)	FRP Strengthened Steel Structures	2020	Supervisor
17	Kathula Padma Nayani (116MM0536)	Mechanical Characterisation of Adhesively Bonded Lap Joints: An Assessment on Adhesive Types and Testing Temperature	2020	Co-supervisor
16	P.N.Shivangi (115MM0476)	Experimental investigation on the effect of nano-fillers on the carbon fibre modified through Electrophoretic deposition	2019	Supervisor

15	Vinit Kumar Agarwalla (115MM0477)	Assessment of severely thermal shock conditioning of nano TiO ₂ enhanced glass fiber/epoxy composites at various loading rate	2019	Supervisor
14	Shashwat Alok (115MM0657)	Fabrication of Single Lap Joint and determination of the effect of adhesive thickness on the lap shear strength of the joint	2019	Supervisor
	Himanshu Shekhar (115MM0659)			
13	Saswat Choudhury (115MM0482)	Enhancement in Properties and Performance of advanced FRP composites to be used in structural applications through fiber modification	2019	Co-supervisor
12	Chaganti S Sarat Chandra (114MM0642)	Effect of Hydrothermal cycling on mechanical properties of Glass fibre/Epoxy composites with and without CNT	2018	Supervisor
	Ganesh Arepalli (114mm0500)			
11	Soubhagya Kumar Nayak (114MM0263)	Effect of Freeze-thaw cycling on properties of CNT reinforced glass-epoxy composite	2018	Co-supervisor
	Ankit Adarsha Patra (114MM0264)			
10	Akula Gayatri Sri Anjani (113MM0435)	Effect of Loading Rate and Temperature on Mechanical Performance of CNT Modified Glass Epoxy Fiber Reinforced Composite	2017	Supervisor
	Arunesh Kumar Pandey (113MM0456)			

9	Dipesh Divyanshu (113MM0443)	Cryogenic performance of Nano-Silica embedded Glass Fibre Reinforced Polymer composite	2017	Supervisor
8	Ashika Agrawal (113MM0434)	Flexural and Creep behavior of CNF enhanced GFRP composites at different temperatures	2017	Co-supervisor
	Bata Krishna Giri (113MM0445)			
7	Tanmay Mahendra Goswami (113MM0602)	Effect of Nano-Silica reinforcement on mechanical behaviour of GFRP composites at different temperatures	2017	Co-supervisor
6	Swastik Somaray Mashyal (112MM0407)	Role of environmental temperature on the mechanical behaviour of 0.5 wt % carbon nano fiber modified epoxy nanocomposite and glass fibre reinforced composite	2016	Supervisor
5	Sweta Sahoo (112MM0419)	Elevated Temperature Performance of Carbon Nanotube Modified Epoxy Nanocomposites	2016	Supervisor
	Varsha Parida (112MM0413)			
4	Jyoti Prakash (112MM0387)	Role of environmental temperature on the mechanical behaviour of Nanoclay modified epoxy composite	2016	Co-supervisor
	Philkhana Naga Harshita (112MM0499)			
3	Brajesh Ranjan (112MM0385)	Mechanical performance of epoxy with varying content of carbonaceous nano-filler at elevated temperature	2016	Co-supervisor
2	Hem Shruti Bhardwaj (111MM0357)	Environmental Study of Nano-Filler Embedded Fiber Reinforced Polymer Composite	2015	Co-supervisor

	Prangya Paramita Sahoo (111MM0378)			
1	Abhisek Agrawalla (111MM0264)	Durability Assessment of Multiwalled Carbon-Nanotubes Modified Advanced Fibrous Polymeric Composite in Different Marine Environment	2015	Co-supervisor
	Namrata Keshri (111MM0365)			

13 Intellectual Property Details

1. **R.K. Prusty**, D.K. Rathore, B.C. Ray, P. Jana, 3-D Reinforced Glass Fiber/Graphene Nanoplatelet/Epoxy Composite and Method of Manufacturing Thereof, [IN Patent No. 596943](#).
2. R. Gandi, M. Bera, E. H. Khan, B. De, B. C. Ray, **R. K. Prusty** and S. Mukherjee, A Method of Recycling Fiber Reinforced Polymer (FRP) Composite and The Composite Prepared Therefrom, [Application No. 202531121070](#) (Filed on 03-12-2025).
3. **R. K. Prusty**, B. C. Ray, E. H. Khan, T. Adhikary, R. Gandi, P. Biswas, S. Raghuvanshi, M. Nidhi, Hybrid Carbon–Glass Fiber Reinforced Polymer Composite Laminate with CNT-Functionalized Carbon Fibers, [Application No. 202631036612](#) (Filed on 25-03-2026).
4. **R. K. Prusty**, B. C. Ray, E. H. Khan, T. Adhikary, R. Gandi, S. Choudhary, P. Biswas, S. Raghuvanshi, M. Nidhi, Hybrid Fiber Reinforced Polymer Composite Laminate with CNT-Modified Epoxy Matrix, [Application No. 202631036300](#) (Filed on 25-03-2026).
5. B N V S G Gupta K, Shubham, E H Khan, B. C. Ray, **R. K. Prusty**, Composite Metal Hybrid Crash Barrier with Rollers, Application No. 509582-001 (Filed on 15-07-2026).

14 Authored Books Published

1. B. C. Ray, **R. K. Prusty**, D. K. Rathore, S. K. Ghosh, A. Anand, Micro and Nanophased Polymeric Composites: Durability Assessment in Engineering Applications, Woodhead Publishing, 2024. <https://doi.org/10.1016/C2018-0-04603-4>
2. B.C. Ray, **R.K. Prusty**, D. Nayak, Phase Transformations and Heat Treatments of Steels, CRC Press, Boca Raton, 2020. <https://doi.org/10.1201/9780429019210>.

3. B.C. Ray, **R.K. Prusty**, D.K. Rathore, Fibrous Polymeric Composites: Environmental Degradation and Damage, CRC Press, Boca Raton, 2018.
<https://doi.org/10.1201/9780429506314>.

15 Book Chapters Published in Edited Books

1. R. Gandhi, **R. K. Prusty**, Self-healing mechanisms in epoxy/block copolymers and their nanocomposite systems, in. Micro- and Nanostructured Epoxy Thermosetting Polymer Blends and their Nanocomposites, Elsevier, 2025. <https://doi.org/10.1016/B978-0-443-21679-4.00001-4>
2. D. S. Kumar, B.N.V.S. G. Gupta K, **R. K. Prusty**, Development of nanophased synthetic fiber reinforced polymer composites: Prospects and Challenges, in. Synthetic and Mineral Fibers, Their Composites and Applications, Woodhead Publishing, 2024.
<https://doi.org/10.1016/B978-0-443-13623-8.00026-5>
3. S. De, T. Sahoo, B.N.V.S. Ganesh Gupta K, **R.K. Prusty**, Natural Fiber-Reinforced Vinyl Ester Composites: Influence of CNT Nanofillers on Thermal and Mechanical Properties, in . Vinyl Ester-Based Biocomposites, CRC Press, 2023.
<https://doi.org/10.1201/9781003270997-7>.
4. **R.K. Prusty**, B.C. Ray, FRP Composites: A Prospective Structural Material for the Indian Landscape, in. Future Landscape of Structural Materials in India, Springer, 2022.
https://doi.org/10.1007/978-981-16-8523-1_7.
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17 Conference Presentations & Publications

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18 Conference/Workshop/Short-term course organized

- Coordinator of 6th International Conference on Processing and Characterization of Materials (ICPCM2024) held at NIT Rourkela during December 5 – 7, 2024.
- Coordinator of a training workshop on Application of XRD Technique in Materials Science and Engineering held at NIT Rourkela during August 22 – 28, 2022.
- Convener of a One Day Research Facility Training Program on "Hands-on experience in fabrication and characterization of FRP composites" held at NIT Rourkela during August 13, 2022.
- Coordinator of a short term course and workshop on Concepts to Commercialization of FRP Composites held at NIT Rourkela during August 8 – 12, 2022.
- Treasurer of 2nd International conference of Processing and Characterization of Materials (ICPCM) held at NIT Rourkela during December 12 – 14, 2019.
- Co-convener of 1st International conference of Processing and Characterization of Materials (ICPCM) held at NIT Rourkela during December 6 – 8, 2018.

19 Invited Lectures

- Chief guest & Keynote Speaker in the Five-day Online Faculty Development Program on “Recent Advances In Composite Materials: Integrating Modelling And Experimental Approaches” from 17th to 21st, November 2025 organized by MVGR College of Engineering, Andhra Pradesh and delivered a lecture on “FRP Composite for Structural Applications: Fundamentals & Recent Advances”.
- Delivered an invited lecture on "An introduction to FTIR analysis for studies related to Polymer Composites and their ageing behaviour" during the Workshop on “MICROSCOPY (DARSHINI) Cluster of Microscopic Equipment” organized by Central Research Facilities at NIT Rourkela on 03 July 2024.
- Delivered an invited lecture on " Thermomechanical behavior of FRP Composites: Effects of nanofillers" during the Workshop on “Viscoelastic Materials and Applications” organized by Mechanical Engineering department at NIT Rourkela on 26 July 2023.
- Delivered an invited lecture on "Discontinuities in Composites and Other Engineering Materials" during the Workshop on “Non-Destructive Evaluation of Engineering Materials: Theory and Practice” organized by NIT Rourkela on 21 June 2023.

- Delivered an invited lecture on "Fibre Reinforced Polymer Composites: An emerging alternative material for Structural Applications" organized by School of Mechanical Sciences Department of Polymer Engineering, B.S. Abdur Rahman Crescent Institute of Science and Technology on 17 May 2022.
- Delivered an invited talk on "An Introduction to Fiber Reinforced Polymer Composites" at The Indian Institute of Metals Rourkela Local Chapter webinar" online on 17th July 2022.
- Delivered an invited talk on "An Introduction to Fiber Reinforced Polymer Composite and their Mechanical Behaviour" in the short term course organized by MNIT Jaipur during 22 – 26 September 2020.
- Speaker of the customized short term course conducted by TATA Steel Ltd. (New Materials Business) for its executives on "FRP Composites: An Introduction from Definition to Development" during 17 – 18 May, 2018 at Kolkata.
- Delivered a keynote lecture at National seminar on "Polymer Nanocomposites for Engineering Applications" organized at NIT, Rourkela held on 14th March, 2015.
- Delivered a keynote lecture on "Failure and Fracture behavior of Composite Materials" in the short term course "Deformation Behaviour and Fracture of Engineering Materials: Experimental and Simulations" organized by Dept. of Metallurgical and Materials Engineering, NIT Rourkela on 13th December, 2018.
- Delivered a keynote lecture on "Introduction to FRP Composites: A prospective material for aerospace applications" in the short term course "Aero-craft Processes and Aero-Materials" organized by Dept. of Metallurgical and Materials Engineering, NIT Rourkela on 27th May, 2019.

20 Other Significant Administrative and Outreach Activities

- [Subject Expert](#), Lecturer recruitment, OPSC (2023–24)
- [External Expert](#), Project staff recruitment, IMMT Bhubaneswar (2023, 2024)
- **Central Evaluation Committee**, Research Scholars Week – NIT Rourkela (2024 & 2026)
- **Chief Guest & Keynote Speaker**, FDP on Composite Materials, MVGR College of Engineering (2025)
- **PIC**, Dept. PG Accreditation, (since 2020)
- **Member, Institute Perception Committee** (Accreditation and Ranking) (since 2023)

- **Member, Institute International Students' Cell, NIT Rourkela (2023-2026).**
- **Co-Treasurer, NIT Rourkela Alumni Association (NITRAA) (2022–24).**
- **Joint Secretary, Indian Institute of Metals – Rourkela Chapter (2021–24).**
- **Warden, G D Birla Hall of Residence – NIT Rourkela (2020–22).**