

Resume

Personal Details:

Name: Prasanta Kumar Rout (*B.Tech. M.Tech., PhD*)
Designation: Assistant Professor (Stage II)
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Academic Qualification:

- **PhD**, Metallurgical and Materials Engineering (*NIT, Durgapur, West Bengal*)
- **M.Tech**, Materials Science and Engineering, (*IIT, Kharagpur, West Bengal*)
- **B. Tech**, Ceramic Engineering, (*NIT, Rourkela, Odisha*)

Employment Record:

- **Assistant Professor** at Tripura University (A Central University), Tripura (29.06.2016 – Till date).
- **Lecturer** at Central Institute of Plastic Engineering and Technology (CIPET), Bhubaneswar, Odisha. (14.08.2015 – 25.06.2016).
- **Assistant Professor** at Gandhi Institute of Engineering and Technology (GIET), Gunupur, Odisha. (19.07.2014 – 30.07.2015)
- **Project Assistant** at CSIR-Institute of Minerals and Materials Technology (IMMT), Bhubaneswar, Odisha (02.07.2009 – 06.10.2010).
- **Self-Employee (Co-Founder Member)** Ants Ceramics Pvt. Ltd., Nashik, Maharashtra, (08.08.2005 – 15.12.2008).

Core Area of Expertise:

- Colloidal processing of oxide based ceramic for both high and low value added applications.
- Development of construction/building materials by utilizing different industrial solid wastes.
- Electrochemical and stress corrosion cracking (SCC) behavior study aluminum alloys.

M. Tech. Thesis Supervised:

- No. of M. Tech student guided: 16

PhD Thesis Supervised:

- No. of PhD research scholar guided: 01

Research Publication Details:

- No. of Journal publications: 25

Some Selected Journal Publication (SCI)

1. **Title:** Geopolymer bricks: The next generation of construction materials for sustainable environment.

Authors: Dipankar Das, Anna Gołębiewska, **Prasanta Kumar Rout**

Journal: **Construction and Building Materials**, Volume: 445, Year: 2024, Page: 137876-137900,
<https://doi.org/10.1016/j.conbuildmat.2024.137876>, (IF-8.1, Q1).

2. **Title:** Effect of varying weight fraction of silicon carbide (SiCp) particles on the corrosion resistance of Al-Zn Mg Cu/SiCp composite.

Authors: Saikat Das, **Prasanta Kumar Rout**

Journal: **Canadian Metallurgical Quarterly**, Volume: 63, Year: 2024, Page: 1286-1297, <https://doi.org/10.1080/00084433.2023.2252650>, (IF-1.7, Q2).

3. **Title:** Synthesis of Inorganic Polymeric Materials from Industrial Solid Waste.

Authors: Dipankar Das, **Prasanta Kumar Rout**

Journal: **Silicon**, Volume: 15, Year: 2023, Page: 1771-1791,
<https://doi.org/10.1007/s12633-022-02116-5>, (IF-4.1, Q2).

4. **Title:** Thermal Kinetics of Varying Weight Fraction of Silicon Carbide Reinforced Al-Zn-Mg Cu Alloy Composite.

Authors: Saikat Das, R. Govinda Rao, **Prasanta Kumar Rout**

- Journal: **Silicon**, Volume: 15, Year: 2023, Page: 6349-6366,
<https://doi.org/10.1007/s12633-023-02511-6>, (IF-4.1, Q2).
- 5. Title:** A Review of Coal Fly Ash Utilization to Save the Environment.
 Authors: Dipankar Das, **Prasanta Kumar Rout**
 Journal: **Water, Air, & Soil Pollution**, Volume: 234, Year: 2023, Page: 128-151,
<https://doi.org/10.1007/s11270-023-06143-9> (IF-3.5, Q2).
- 6. Title:** Effects of isothermal and interrupted aging on mechanical properties and corrosion behavior of an Al-Cu-Mg alloy.
 Authors: Soumyajeet Majumder, R. Govinda Rao, **Prasanta Kumar Rout**
 Journal: **Materials and Corrosion**, Volume: 74, Year: 2023, Page: 1471-1485,
<https://doi.org/10.1002/maco.202213660>, (IF-2.1, Q2).
- 7. Title:** Thermal Kinetics of SiCp Reinforced AA7075 Alloy Composite.
 Authors: Saikat Das, **Prasanta Kumar Rout**
 Journal: **Silicon**, Volume: 14, Year: 2022, Page: 5379-5391,
<https://doi.org/10.1007/s12633-021-01311-0>, (IF-4.1, Q2).
- 8. Title:** Microbial remediation of plastic pollutants generated from discarded and abandoned marine fishing nets.
 Authors: Pallabi Punyatoya Sahoo, Sikha Singh, **Prasanta Kumar Rout**,
 Sunanda Mishra & Alok Prasad Das
 Journal: **Biotechnology and Genetic Engineering Reviews**, Volume: 39, Year: 2022, Page: 511-526, <https://doi.org/10.1002/star.201900284>, (IF-2.4, Q2).
- 9. Title:** Synthesis, Characterization and Properties of Fly Ash Based Geopolymer Materials.
 Authors: Dipankar Das, **Prasanta Kumar Rout**
 Journal: **Journal of Materials Engineering and Performance**, Volume: 30, Year: 2021, Page: 3213-3231, <https://doi.org/10.1007/s11665-021-05647-x>, (IF-2.6, Q2).
- 10. Title:** Synthesis and Characterization of Superabsorbent Cellulose Based Hydrogel for Agriculture Application.
 Authors: Dipankar Das, Priyambada Prakash, **Prasanta Kumar Rout**, and Sachin Bhaladhare
 Journal: **Starch Stärke**, Volume: 74, Year: 2020, Page: 1471-1485,
<https://doi.org/10.1002/star.201900284>, (IF-2.6, Q3).
- 11. Title:** Influence of Aging Treatments on Alterations of Microstructural Features and Stress Corrosion Cracking Behavior of an Al-Zn-Mg Alloy.
 Authors: **Prasanta Kumar Rout**, M.M. Ghosh, K.S. Ghosh
 Journal: **Journal of Materials Engineering and Performance**, Volume: 24, Year: 2015, Page: 2792-2805, <https://doi.org/10.1007/s11665-015-1559-1> (IF-2.6, Q2).
- 12. Title:** Microstructural, mechanical and electrochemical behavior of a 7017 Al-Zn-Mg alloy of different tempers.
 Authors: **Prasanta Kumar Rout**, M.M. Ghosh, K.S. Ghosh
 Journal: **Materials Characterization**, Volume: 104, Year: 2015, Page: 49-60,
<https://doi.org/10.1016/j.matchar.2015.03.025>, (IF-6.2, Q1).

13. Title: Effect of solution pH on stress corrosion cracking behavior of a 7150 Al-Zn-Mg-Cu alloy,

Authors: **Prasanta Kumar Rout**, M.M. Ghosh, K.S. Ghosh

Journal: *Materials Science and Engineering A*, Volume: 604, Year: 2014, Page: 156-165, <https://doi.org/10.1016/j.msea.2014.02.036>, (IF-7.9, Q1).

Conferences and Seminars:

- No. of conference attended: 10

Book Chapters:

- No. of book chapter publications: 10

Sponsored Funded Research Grants:

1. Project Title: Bioreactor based enhanced bio-recovery of manganese from mining waste residues.

Funding agency: Department of Science and technology (DST), Govt. of India.

Project duration: 2016 – 2019 **(Completed), As PI**

2. Project Title: Production of geopolymer construction materials from fly ash: An industrial waste.

Project duration: 2018-2021 **(Completed), As PI**

Funding Agency: Integrated Eco development research program in the Himalayan region (IERP), Govt. of India.

3. Project Title: Establish a drug metabolomics lab for north eastern states.

Project duration: 2021-2026 **(Ongoing), As Co- PI**

Funding Agency: Department of Biotechnology (DBT), Govt. of India.

Honors and Awards:

- Placed second position in INCUBIZ, Anveshan (III), contest by CIIE, Indian Institute of Management (IIM), Ahmedabad.

Reviewer of Selected International Journals:

- Construction and Building Materials
- Advances in Civil Engineering
- Journal of the European Ceramic Society
- Materials Today Communications
- Cleaner Materials
- Ceramics International
- Environmental Research

Member of Organizations:

- The Institution of Engineer, India (Life Member)