Short Bio-data

Name: Dr. PROSENJIT GHOSH

Designation: Sr. Scientist

Division: CCFP

Area of Expertise: polymer Science, fibre technology, Polymer composite, Carbon fibre, Brake friction material.

Specialisation: Polymer Science and Technology

Publications: Please refer to the attachment

Subject area willing to guide the student (kindly tick any one of the following):

Aero/ Computer Science / Electronics/ Electrical/ Mechanical ✓ / Chemistry ✓ / Information Science / Physics / etc.

❖ Publications:

1. Publication in Refereed International Journal(s)

I. **Ghosh, P*.,** 2024. Performance assessment of aluminum chips in reduced-scale friction for developing copper-free elastomer-modified friction composites. Progress in Rubber, Plastics and Recycling Technology, p.14777606241231887.

II. **Ghosh, P.**, Naskar, K. and Das, N.C., 2020. Influence of synthetic graphite powder on tribological and thermo-mechanical properties of organic-inorganic hybrid fiber reinforced elastomer-modified phenolic resin friction composites. Composites Part C, p.100018.

III. Shukla, H.K., Barshilia, H., Sunil, S., Porkodi, P., **Ghosh, P.**, Viju, Kamaleshaiah, M.S. and Jadhav, J.J., 2020. Development of indigenous personal protective equipment coverall by CSIR-NAL. Indian Chemical Engineer, pp.1-7.

IV. **Ghosh, P*.**, Banerjee, S.S. and Khastgir, D., 2020. Elastomer modified phenolic resin-based composites with reduced scale friction: Influence of calcined petroleum coke on tribological and thermo-mechanical behavior. Polymer Engineering & Science, 60(7), 1446-1458.

V. **Ghosh, P*.**, Banerjee, S.S. and Khastgir, D., 2020. Performance assessment of hybrid fibrous fillers on the tribological and thermo-mechanical behaviors of elastomer modified phenolic resin friction composite. SN Applied Sciences, 2, pp.1-14.

VI. **Ghosh, P.**, Naskar, K. and Das, N.C., 2020. Enhancement of tribological and thermo-mechanical properties of phenolic resin friction composites by improving interactions between elastomeric phase and matrix resin. SN Applied Sciences 2.11, pp. 1-13.

VII. Das, T.K., **Ghosh, P.** and Das, N.C., 2019. Preparation, development, outcomes, and application versatility of carbon fiber-based polymer composites: a review. Advanced Composites and Hybrid Materials, pp.1-20.

VIII. **Ghosh, P.**, Ghosh, D., Kumar Chaki, T. and Khastgir, D., 2017. NBR powder modified phenolic resin composite: influence of graphite on tribological and thermal properties. Tribology Transactions, 60(3), pp.548-556.

IX. **Ghosh, P.**, Ghosh, D., Khastgir, D. and Chaki, T.K., 2016. Effect of aramid pulp and lapinas fiber on the friction and wear behavior of NBR powder–modified phenolic resin composite. Tribology Transactions, 59(3), pp.391-398.

2. Book Chapters:

I. Sunil, S., Porkodi, P., Kottiyatil, A. J., and **Ghosh, P*.** (2022). Polymer-graphene composites as anticorrosive materials. In Polymer Nanocomposites Containing Graphene (pp. 589-614). Woodhead Publishing.

II. Sunil, S., Naveen, V., Porkodi, P., Kottiyatil, A., J., Madhavan, K., and **Ghosh, P*.** (2023) Polymer composite sensors for automotive, aerospace, and other engineering applications (pp. 479-500). Woodhead Publishing.

III. V. Naveen, **Ghosh, P.**, Das T. K., and Das, N. C. (2023) Polymer composites for automotive applications. Frontiers in Polymer Science, 2023, Vol. 1, 165-196

IV. Naveen, V., Madhavan, K., and **Ghosh, P*.** Elastomer-modified phenolic resin: preparation and applications. Elsevier (In-press).

3. Conference and Workshop:

I. V. Balaji, V., Raju, T., **Ghosh, P.*:** Heat setting studies of polyacrylonitrile precursors for carbon fibers: In proceedings of PPS (2023) at KOVALAM, KERALA, INDIA (Dated: November 29- December 02).

II. V. Balaji, V., Raju, T., **Ghosh, P.*:** Polyacrylonitrile Based Precursor for Carbon Fiber: Reaction Kinetics of Oxidative Stabilization Reaction Under Free Shrinkage in Isothermal Conditions: In proceedings of APSRT (2019) at IIT KHARAGPUR, INDIA (Dated: September 24-27).

III. **Ghosh, P.**, Khastgir, D., Chaki, T.K.: Effect of Aramid Pulp and Lapinus Fiber on the Friction and Wear Behaviour of NBR Powder Modified Phenolic Resin Composite for Application in Brake Blocks for Coaches of Indian Railways: In the proceedings of RUBBERCON (2016) at CHENNAI, INDIA (Dated:1-3 March).

IV. **Ghosh, P.**, Ghosh, D., Khastgir, D., Chaki, T.K.: Effect of Space Filler and Functional Filler on the Friction and Wear Behavior of NBR Powder Modified Phenolic Resin Composite: In the proceedings of MACRO (2015) at IACS KOLKATA, INDIA (Dated: 23-26 January).

V. **Ghosh, P.**, Ghosh, D., Khastgir, D., Chaki, T.K.: Influence of Organic and Mineral Fiber on the Friction and Wear Behaviour of NBR Powder Modified Phenolic Resin Composite: In the proceedings of KASAM (2014) at KATHMANDU, NEPAL (Dated: 7-10 September).

VI. International workshop on ADVANCES IN ASBESTOS-FREE FRICTION COMPOSITE 2014 at IIT DELHI, INDIA (13-14 February)

VII. International conference on RUBBER AND RUBBER LIKE MATERIALS 2013 at IIT KHARAGPUR, INDIA (7-10 March)

VIII. **Ghosh, P.**, Bhattacharya, A., Nasim, T., and Bandyopadhyay, A.: Flocculation Study of Aqueous Iron Ore Suspension Using Shellac: In the proceedings of APM (2012) at CIPET, AHMEDABAD, INDIA (Dated: 10-12 February).