

CURRICULAM VITAE

Dr. GOPAL PUDHUPALAYAM MUTHUKUTTI,

Research Scientist (Specialist 2),
Department of Materials and Production Engineering,
King Mongkut's University of Technology North Bangkok,
Bangkok – 10800, Thailand.



☎ +91 9790442463
+66 0633149687

✉ gopal33mech@gmail.com

<https://www.linkedin.com/in/gopal-pm-b966827a/>

<https://www.scopus.com/authid/detail.uri?authorId=57201843815>

Recognized among the World's Top 2% Scientists (Single-Year Impact, 2025), Stanford University–Elsevier

Education

Doctor of Philosophy

Anna University Regional Campus, Coimbatore.
Anna University - Chennai, Tamil Nadu.

December 2017

Full Time

Highly Commended

Master of Engineering (Production)

Anna University Regional Campus, Coimbatore.
Anna University - Chennai, Tamil Nadu.

July 2014

Full Time

CGPA 8.09

Bachelor of Engineering (Mechanical)

Adhiyamaan College of Engineering, Hosur.
Anna University - Chennai, Tamil Nadu.

May 2012

Full Time

CGPA 8.30

Work/Research Experience

- **Postdoctoral Research Fellow** at **King Mongkut's University of Technology North Bangkok (KMUTNB)**, Thailand from September 2024 to 2025.
- **Assistant Professor** at **Karpagam Academy of Higher Education (KAHE), Coimbatore** from Jun 2017 – Jan 2026 (8 years 7 Months).
- **Teaching Assistant** at **Anna University Regional Campus, Coimbatore** from Aug to Dec 2014.

Research Focus and Interest

- Sustainable Materials
- Waste Management
- Composite Materials
- Additive Manufacturing

Projects

Post Doc at KMUTNB (2024-2025): Development of Green Polymer Composite with E-waste CRT Glass as Reinforcement.

Seed Project at KAHE (2023-2024): Development of light weight Mg composites with High Entropy Alloy as reinforcement for tribological applications.

PhD (2015-2017): Development of Metal-Waste Composite: A Novel Integration Method for E waste Deployment.

PG (2013-2014): Parametric Optimization for Surface Roughness in Turning of Al/Rockdust Composite.

UG 1 (2011): Design, Fabrication and Mechanical Properties of Hybrid Composite Materials.

UG 2 (2012): Analysis of Wear Properties of Laser Cladded Cast Iron – Martensitic Stainless-Steel Composites.

Membership of Professional Societies

- Tribology Society of India (TSI)
- Materials Research Society of India (MRSI)

Techniques/Instruments Handled

- Material Processing & Fabrication
 - Metals: Powder Metallurgy, Stir Casting, Friction Stir Processing.
 - Polymers: Hand Layup, Compression Molding, Extrusion, FDM Printing.
- Mechanical & Thermal Testing
 - Universal Testing Machine (UTM)
 - Impact Testing Machine (Charpy/Izod)
 - Tribometer (Wear/Friction Analysis)
 - Vickers Microhardness Tester
 - Dynamic Mechanical Analyzer (DMA)
 - Thermo-Mechanical Analyzer (TMA)
- Material Characterization & Analysis
 - Scanning Electron Microscopy (SEM)
 - Thermogravimetric Analyzer (TGA)
 - Differential Scanning Calorimetry (DSC)
 - FT-IR Spectrophotometer
 - Contact Angle Measurement
- Software/Tools: Fusion 360 (Basic level), Minitab, Origin, Edraw.

Journal Editing

- Guest Editor for a special issue “Advanced Materials for Promoting Sustainability” in Advances in Materials Science and Engineering (AMSE), published by Hindawi, 2023.

- Guest Editor for a special issue “Lignocellulose Composites for Advanced Applications” in Polymers journal, published by MDPI, 2023.

Book Editing

- Editing a book on “*Non-Conventional Machining of Polymer Matrix Composites*”, will be published by Woodhead Publishing, Elsevier.
- Editing a book on “*Advanced Machining of Metal Matrix Composites: Process Development, Performance Optimization, and Sustainability*”, will be published by Routledge, Taylor and Francis Group.
- Edited a book on “*Fundamentals and Advances in Metal Matrix Composites*”, published by Routledge, Taylor and Francis Group. Published on June 2025.

Publications

Journals: International – 75

Book Chapters: 15

Journal Articles

- Phiri, R., Sanjay, M. R., **Gopal, P. M.**, Kavimani, V., & Siengchin, S. (2026). Wear and Friction Behavior of PLA and HDPE Composites Reinforced with Sugarcane Bagasse Fibers. *International Journal of Precision Engineering and Manufacturing*, 1-17. Impact Factor: 3.6)
- Radhakrishnan, B., Soundararajan, S., Sukkasamy, S., & **Gopal, P. M.**, (2025). Enhancing the strength and surface quality of 3D printed using fusion deposition modelling carbon fiber reinforced PLA composite parts. *International Polymer Processing*, (0). (Impact Factor: 1.9)
- **Gopal, P. M.**, Kavimani, V., Suresh, S., & Sudhagar, S. (2025). Development of Lightweight Magnesium Composites Reinforced with FeCoCrNiMn High Entropy Alloy via Powder Metallurgy. *International Journal of Lightweight Materials and Manufacture*. (Cite Score: 11.6)
- Kumar, M., Singh, M. K., Arora, G., Palaniappan, S. K., Ayyappan, V., **Gopal, P. M.**, & Siengchin, S. (2025). A comprehensive review on next-gen electrospun nanofibers for multidirectional applications from energy storage to precise medicine. *Macromolecular Research*, 1-36. (Impact Factor: 3.4)
- **Gopal, P. M.**, Prakash, K. S., Kavimani, V., & Zhou, W. (2025). Synergistic Improvement of Mechanical and Wear Properties of Magnesium by Reinforcing with AlCoCrCuFe High Entropy Alloy. *Tribology Transactions*, 1–16. (Impact Factor: 2.2)
- **Gopal, P. M.**, Kavimani, V., Murugesan, K., & Ayrilmis, N. (2025). An experimental application of machine learning-driven neuro-fuzzy system to predict the wear behaviour of 3D printed bioplastics. *Journal of Polymer Research*, 32(10), 339. (Impact Factor: 2.8)
- **Gopal, P. M.**, Singh, M. K., Palaniappan, S. K., Vijayananth, K., Boonyasopon, P., Mavinkere Rangappa, S., & Siengchin, S. (2025). Sustainable polymer composites from agro and municipal green wastes: a comprehensive review of materials, properties, and

applications. *Journal of Material Cycles and Waste Management*, 1-22. (Impact Factor: 3.2)

- Subramanian, S., Natarajan, E., Khalfallah, A., **Gopal, P. M.**, Beygi, R., Louhichi, B., ... & Ang, C. K. (2025). Current Trends and Emerging Strategies in Friction Stir Spot Welding for Lightweight Structures: Innovations in Tool Design, Robotics, and Composite Reinforcement—A Review. *Crystals*, 15(6), 556. (Impact Factor: 2.4)
- **Gopal, P. M.**, Kavimani, V., Arulmurugan, R., & Ayrilmis, N. (2025). Characterization of ePA/Carbon Fiber Composite Developed through Fused Deposition Modeling. *Journal of Materials Engineering and Performance*, 1-13. (Impact Factor: 2.2)
- Kalidas, N., **Gopal, P. M.**, & Kavimani, V. (2025). Evaluation of Cu/GO/xTiN composites processed through powder metallurgy. *Particulate Science and Technology*, 1-13. (Impact Factor: 2.3)
- Kavimani, V., **Gopal, P. M.**, Murugesan, K., & Arunkumar, K. (2025). Integrating machine learning with photopolymerization additive manufacturing: enhancing PLA mechanical properties. *Multiscale and Multidisciplinary Modeling, Experiments and Design*, 8(5), 1-15. (Impact Factor: 1.9)
- **Gopal, P. M.**, Singh, M. K., Palaniappan, S. K., Vijayananth, K., Rangappa, S. M., & Siengchin, S. (2025). Value-added polymer composites using non-metallic industrial waste: A concise review. *Chemical Engineering Journal*, 162344. (Impact Factor: 13.4)
- Kavimani, V., **Gopal, P. M.**, & Arulmurugan, R. (2025). Green chemistry approach to corrosion control: parthenium hysterophorus extract as an inhibitor for AZ31 alloys. *World Journal of Engineering*, (ahead-of-print). (Impact Factor: 1.4)
- Preethi, V., Kavimani, V., & **Gopal, P. M.** (2025). Multi-objective optimization of wear and friction behavior of hybrid Magnesium-graphene-silicon nitride composite under dry sliding conditions. *Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology*, 13506501241313079. (Impact Factor: 1.6)
- Venkatesh, S., Krishnaraj, R., **Gopal, P. M.**, & Kavimani, V. (2025). Studies on the Effect of Baffle Plates in Settling Chamber Performance by CFD and Experimental Analysis. *Journal of Applied Fluid Mechanics*, 18(3), 567-584. (Impact Factor: 1.1)
- Kavimani, V., **Gopal, P. M.**, Seikh, A. H., Abdo, H. S., & Alnaser, I. (2024). Evaluation of anti-corrosion potential of Parthenium hysterophorus plant extract on AZ31 Mg alloy upon sodium chloride exposure. *Canadian Metallurgical Quarterly*, 1-15. (Impact Factor: 1.4)
- Kalidas, N., **Gopal, P. M.**, & Kavimani, V. (2025). Development and Characterization of Silicon Nitride and Synthesized Graphene Oxide Reinforced Cu/GO/xSi₃N₄ Composites. *Silicon*, 17(1), 141-153. (Impact Factor: 2.8)
- **Gopal, P. M.**, Kavimani, V., Sudhagar, S., Barik, D., Paramasivam, P., & Vemanaboina, H. (2024). Enhancing WEDM performance on Mg/FeCoCrNiMn HEA composites through ANN and entropy integrated COCOSO optimization. *AIP Advances*, 14(9). (Impact Factor: 1.4)
- Kavimani, V., **Gopal, P. M.**, Sivamaran, V., Algburi, S., Barik, D., Paramasivam, P., ... & Alam, S. (2024). Experimental examination on electrochemical micro-machining of Mg–Li–Sr biomedical alloy: Application of ANOVA, Deng’s similarity, and ANFIS for effective modeling optimization. *AIP Advances*, 14(9). (Impact Factor: 1.4)

- Kavimani, V., **Gopal, P. M.**, Ramakrishnan, S. K., Giri, J., Alarifi, A., & Sathish, T. (2024). Predictive modelling and optimization of WEDM parameter for Mg–Li alloy using ANN integrated CRITIC-WASPAS approach. *Heliyon*, 10(15). (Impact Factor: 3.4)
- Kavimani, V., **Gopal, P. M.**, Sumesh, K. R., Radhika, N., & Giri, J. (2024). Optimization of WEDM parameters for machining Mg-Li-RE alloy using CRITIC-COCOSO approach. *International Journal on Interactive Design and Manufacturing (IJIDeM)*, 1-14. (Impact Factor: 2.1)
- **Gopal, P. M.**, Kavimani, V., & Arun Kumar, K. (2024). Experimental examination on electrochemical machining of Mg/FeCoCrNiMn composite. *Materials and Manufacturing Processes*, 39(11), 1551-1562. (Impact Factor: 4.1)
- Prabhu, R., Kavimani, V., **Gopal, P. M.**, & Sahadevan, J. (2024). Thermal barrier coating on Inconel 718: understanding cyclic oxidation kinetics. *Surface Engineering*, 40(4), 478-486. (Impact Factor: 2.4)
- Sudhagar, S., **Gopal, P. M.**, Maniyarasan, M., Suresh, S., & Kavimani, V. (2024). Multi-objective optimization of machining parameters for Si₃N₄–BN reinforced magnesium composite in wire electrical discharge machining. *International Journal on Interactive Design and Manufacturing (IJIDeM)*, 18(7), 4787-4802. (Impact Factor: 2.1)
- Arunkumar, K., **Gopal, P. M.**, & Seenivasan, S. (2024). Effect of rice husk on the mechanical characteristics of abaca/jute hybrid composites. *Materialwissenschaft und Werkstofftechnik*, 55(3), 343-350. (Impact Factor: 1.2)
- Aliasker, K. T., **Gopal, P. M.**, & Sadasivam, S. (2024). Influence of silica rich HNT/MoS₂ hybrid reinforcements on mechanical, wear and corrosion characteristics of magnesium AZ31 alloy. *Materials Research Express*, 11(2), 026505. (Impact Factor: 1.8)
- **Gopal, P. M.**, Kavimani, V., Sudhagar, S., Sonar, T., & Venkatesh, S. (2024). Optimization of wire-cut EDM parameters using Taguchi and entropy coupled COPRAS approach for machining of CRT glass powder reinforced magnesium surface composite developed using friction stir processing. *International Journal on Interactive Design and Manufacturing (IJIDeM)*, 1-12. (Impact Factor: 2.1)
- Soundararajan, S., **Muthukutti, G. P.**, Kumarasamy, S. P., Vijayananth, K., Barik, D., Sharma, P., & Paramasivam, P. (2023). Investigating the tribological characteristics of copper surface composites reinforced with high entropy alloy (AlCoCrCuFe) through friction stir processing. *Scientific Reports*, 13(1), 22652. (Impact Factor: 3.8)
- **Gopal, P. M.**, Prakash, K. S., Makki, E., Kavimani, V., Giri, J., & Sathish, T. (2023). E-waste CRT panel glass reinforced magnesium composite processed through powder metallurgy: fabrication and mechanical performance evaluation. *Journal of Materials Research and Technology*, 27, 2939-2952. (Impact Factor: 6.4)
- Preethi, V., Kavimani, V., & **Gopal, P. M.** (2023). Electrochemical micro-machining of hybrid graphene/silicon nitride-reinforced magnesium composite through integrated Entropy-COPRAS approach. *Multiscale and Multidisciplinary Modeling, Experiments and Design*, 1-13. (Impact Factor: 1.9)
- Aliasker, K. T., **Gopal, P. M.**, Naveen, S., Madhu, S., & Yuvaraj, K. P. (2023). Exploring the effects of self-lubricating MoS₂ in magnesium metal matrix composite: Investigation on

wear, corrosion, and mechanical properties. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 132362. (Impact Factor: 5.2)

- **Gopal, P. M.**, Kavimani, V., Gupta, K., & Marinkovic, D. (2023). Laser-Based Manufacturing of Ceramics: A Review. *Micromachines*, 14(8), 1564. (Impact Factor: 3.40)
- **Gopal, P. M.**, Kavimani, V., & Arunkumar, K. (2023). Multi-objective optimization on abrasive water jet machining of epoxy/glass fiber/grinding wheel particle composite through hybrid optimization technique. *Multiscale and Multidisciplinary Modeling, Experiments and Design*, 1-11. (Impact Factor: 2.20)
- **Gopal, P. M.**, Suyambulingam, I., Divakaran, D., Kavimani, V., Sanjay, M. R., & Siengchin, S. (2023). Exfoliation and physicochemical characterization of novel biomass-based microcrystalline cellulose derived from *Millettia pinnata* leaf. *Biomass Conversion and Biorefinery*, 1-11. (Impact Factor: 4.050)
- Mohan Das Gandhi, A. G., **Gopal, P. M.**, Shenbagaraj, R., & Kavimani, V. (2023). Effect of SiC reinforcement on Mechanical and Machinability Characteristics of Mg/SiC/B4C Hybrid Composite Developed Through Stir Casting. *Silicon*, 1-11. (Impact Factor: 2.941)
- Thalakkal, A. K., **Muthukutti, G. P.**, Vellingiri, S., Naveen, S., & Madhu, S. (2023). Utilization of Silicon Enriched Natural Halloysite Nano Tube: Mechanical, Tribological, and Corrosion Behaviour in Magnesium Matrix Composites. *Silicon*, 1-12. (Impact Factor: 2.941)
- Kavimani, V., Divakaran, D., Sriariyanun, M., Suganya Priyadharshini, G., **Gopal, P. M.**, Suyambulingam, I., ... & Siengchin, S. (2023). Facile exfoliation and physicochemical characterization of biomass-based cellulose derived from *Pandanus tectorius* leaves for sustainable environment. *Biomass Conversion and Biorefinery*, 1-12. (Impact Factor: 4.050)
- Kavimani, V., **Gopal, P. M.**, Sivamaran, V., & Anand Babu, K. (2022). Investigations on the WEDM of Friction Stir Processed Magnesium/Graphene-Boron Nitride Hybrid Surface Composite through the Entropy-COPRAS Approach. *Advances in Materials Science and Engineering*, 2022. (Impact Factor: 2.098)
- **Gopal, P. M.**, Soorya Prakash, K., Kavimani, V., & Rajendiran, G. (2022). Processing and Properties of AlCoCrFeNi High Entropy Alloys: A Review. *Advances in Materials Science and Engineering*, 2022. (Impact Factor: 2.098)
- Kavimani, V., **Gopal, P. M.**, Stalin, B., Balasubramani, V., Dhinakaran, V., Nagaprasad, N., & Ramaswamy, K. (2022). Influence of reduced graphene oxide addition on kerf width in abrasive water jet machining of nanofiller added epoxy-glass fibre composite. *Plos one*, 17(8), e0270505. (Impact Factor: 3.752)
- Nagaraj, S. K., Ponnusamy, P., **Gopal, P. M.**, Van, H. T., Nguyen, L. H., & Kabir, S. B. (2022). Enhancing the Production Yield of *Jatropha* and *Pongamia* Oil-Based Biodiesel by Introducing Nanocatalyst. *Journal of Nanomaterials*, 2022. (Impact Factor: 3.791)
- Kavimani, V., **Gopal, P. M.**, Sumesh, K. R., & Elanchezhian, R. (2022). Improvement on mechanical and flame retardancy behaviour of bio-exfoliated graphene-filled epoxy/glass fibre composites using compression moulding approach. *Polymer Bulletin*, 79(8), 6289-6307. (Impact Factor: 2.843)

- Soundararajan, S., **Muthukutti, G. P.**, Shanmugam, N., & Kumarasamy, S. P. (2022). Optimization of Sliding Wear Parameters for Copper Surface Composites Reinforced with AlCoCrCuFe HEA. *Chiang Mai Journal of Science*, 49(4), 1205-1216. (Impact Factor: 0.507)
- Sudhagar, S., & **Gopal, P. M.** (2021). Investigation on mechanical and tribological characteristics Cu/Si 3 N 4 surface composite developed through friction stir processing. *Silicon*, 1-10. (Impact Factor: 2.941)
- Arunkumar, K., **Gopal, P. M.**, & Kavimani, V. (2021). Influence of basalt and graphene fillers and their hybridization on surface quality during AWJM process. *Materials and Manufacturing Processes*, 36(16), 1887-1897. (Impact Factor: 4.783)
- **PM, Gopal.**, Soorya Prakash, K., (2021). Effect of Silica Rich CRT on Thrust Force, Temperature and Surface Finish in Drilling Magnesium Hybrid MMC. *Silicon*, 13(12), 4431-4441. (Impact Factor: 2.941)
- Kavimani, V., **Gopal, P. M.**, Stalin, B., Karthick, A., Arivukkarasan, S., & Bharani, M. (2021). Effect of graphene oxide-boron nitride-based dual fillers on mechanical behavior of epoxy/glass fiber composites. *Journal of Nanomaterials*, 2021, 1-10. (Impact Factor: 3.791)
- Prasanna, R., Kavimani, V., **Gopal, P. M.**, & Simson, D. (2021). Multi-Response Optimization and Surface Integrity Characteristics of Wire Electric Discharge Machining α -Phase Ti-6242 Alloy. *Process Integration and Optimization for Sustainability*.
- Kavimani, V., Stalin, B., **Gopal, P. M.**, Ravichandran, M., Karthick, A., & Bharani, M. (2021). Application of r-GO-MMT hybrid nanofillers for improving strength and flame retardancy of epoxy/glass fibre composites. *Advances in Polymer Technology*, 2021, 1-9. (Impact Factor: 2.502)
- Gopal, R., Thirunavukkarasu, K., Kavimani, V., & **Gopal, P. M.** (2021). Measurement and multi-response optimization of spark erosion machining parameters for titanium alloy using hybrid Taguchi-grey relational analysis-principal component analysis approach. *Journal of Materials Engineering and Performance*, 30, 3129-3143. (Impact Factor: 2.036)
- Seenivasan, S., Soorya Prakash, K., Nandhakumar, S., & **Gopal, P. M.** Influence of AlCoCrCuFe High Entropy Alloy particles on the microstructural, mechanical and tribological properties of copper surface composite made through friction stir processing. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, 0954406220985895. (Impact Factor: 1.3863)
- Thirunavukkarasu, K., Kavimani, V., **Gopal, P. M.**, & Das, A. D. (2020). Recovery and Recycling Silica Flux in Submerged Arc Welding-Acceptable Properties and Economical Correlation. *Silicon*, 1-10. (Impact Factor: 1.499)
- Kavimani, V., **Gopal, P. M.**, Sumesh, K. R., & Kumar, N. V. (2020). Multi Response Optimization on Machinability of SiC Waste Fillers Reinforced Polymer Matrix Composite Using Taguchi's Coupled Grey Relational Analysis. *Silicon*, 1-9. (Impact Factor: 1.499)
- **Gopal, P. M.**, & Prakash, K. S. (2020). Effect of Silica Rich CRT on Thrust Force, Temperature and Surface Finish in Drilling Magnesium Hybrid MMC. *Silicon*, 1-11. (Impact Factor: 1.499)

- **Gopal, P. M.,** & Kavimani, V. (2020). Influence of Silica Rich CRT and BN on Mechanical, Wear and Corrosion Characteristics of Copper-Surface Composite Processed Through Friction Stir Processing. *Silicon*, 1-10. (Impact Factor: 1.499)
- Prakash, K. S., **Gopal, P. M.,** & Rahul, R. N. (2021). Effect of material and machining features in electric discharge machining of 6061Al/rock dust composites. *Indian Journal of Engineering and Materials Sciences (IJEMS)*, 27(2), 471-480. (Impact Factor: 0.521)
- Prakash, K. S., **Gopal, P. M.,** Purusothaman, M., & Sasikumar, M. (2020). Fabrication and characterization of metal-high entropy alloy composites. *International Journal of Metalcasting*, 14(2), 547-555. (Impact Factor: 1.347)
- Prakash, K. S., **Gopal, P. M.,** & Karthik, S. (2020). Multi-objective optimization using Taguchi based grey relational analysis in turning of Rock dust reinforced Aluminum MMC. *Measurement*, 157, 107664. (Impact Factor: 3.364)
- Manikandan, N., Balasubramanian, K., Palanisamy, D., **Gopal, P. M.,** Arulkirubakaran, D., & Binoj, J. S. (2019). Machinability analysis and ANFIS modelling on advanced machining of hybrid metal matrix composites for aerospace applications. *Materials and Manufacturing Processes*, 34(16), 1866-1881. (Impact Factor: 2.995)
- Nagaraj, S. K., Ponnusamy, P., **Muthukutti, G. P.,** & Ponnusamy, R. (2019). Emission evaluation on 3-hole and 4-hole nozzle diesel engine with Jatropha and Pongamia (Karanja) mixed bio-oil. *Sustainable Environment Research*, 29(1), 1-7.
- **Gopal, P. M.,** & Prakash, K. S. (2019). Wire electric discharge machining of silica rich E-waste CRT and BN reinforced hybrid magnesium MMC. *Silicon*, 11(3), 1429-1440. (Impact Factor: 1.499)
- Karthik, S., Prakash, K. S., **Gopal, P. M.,** & Jothi, S. (2019). Influence of materials and machining parameters on WEDM of Al/AlCoCrFeNiMo0.5 MMC. *Materials and Manufacturing Processes*, 34(7), 759-768. (Impact Factor: 2.995)
- Prasanna, R., **Gopal, P. M.,** Uthayakumar, M., & Aravind, S. (2019). Multicriteria Optimization of Machining Parameters in WEDM of Titanium Alloy 6242. In *Advances in Manufacturing Technology* (pp. 65-75). Springer, Singapore.
- Paranthaman, P., **Gopal, P. M.,** & Kumar, N. S. (2019). Characterization of economical aluminium MMC reinforced with weld slag particles. In *Advances in Manufacturing Technology* (pp. 9-16). Springer, Singapore.
- Prakash, K. S., **Gopal, P. M.,** Anburose, D., & Kavimani, V. (2018). Mechanical, corrosion and wear characteristics of powder metallurgy processed Ti-6Al-4V/B4C metal matrix composites. *Ain Shams Engineering Journal*, 9(4), 1489-1496.
- Daniel, S. A. A., Sakthivel, M., **Gopal, P. M.,** & Sudhagar, S. (2018). Study on tribological behaviour of Al/SiC/MoS₂ hybrid metal matrix composites in high temperature environmental condition. *Silicon*, 10(5), 2129-2139. (Impact Factor: 1.499)
- **Gopal, P. M.,** & Prakash, K. S. (2018). Minimization of cutting force, temperature and surface roughness through GRA, TOPSIS and Taguchi techniques in end milling of Mg hybrid MMC. *Measurement*, 116, 178-192. (Impact Factor: 3.364)
- **Gopal, P. M.,** Prakash, K. S., Nagaraja, S., & Aravinth, N. K. (2017). Effect of weight fraction and particle size of CRT glass on the tribological behaviour of Mg-CRT-BN hybrid composites. *Tribology International*, 116, 338-350. (Impact Factor: 4.271)

- Prakash, K. S., **Gopal, P. M.**, & Kavimani, V. (2017). Effect of rock dust, cenosphere and E-waste glass addition on mechanical, wear and machinability behaviour of Al 6061 hybrid composites, *Indian Journal of Engineering and Materials Sciences (IJEMS)*, 24(4), 270-282. (Impact Factor: 0.521)
- Kumarasamy, S. P., Vijayananth, K., Thankachan, T., & **Muthukutti, G. P.** (2017). Investigations on mechanical and machinability behavior of aluminum/flyash cenosphere/Gr hybrid composites processed through compocasting. *Journal of applied research and technology*, 15(5), 430-441.
- **Gopal, P. M.**, Prakash, K. S., & Jayaraj, S. (2018). WEDM of Mg/CRT/BN composites: Effect of materials and machining parameters. *Materials and Manufacturing Processes*, 33(1), 77-84. (Impact Factor: 2.995)
- Prakash, K. S., Balasundar, P., Nagaraja, S., **Gopal, P. M.**, & Kavimani, V. (2016). Mechanical and wear behaviour of Mg–SiC–Gr hybrid composites. *Journal of magnesium and alloys*, 4(3), 197-206. (Impact Factor: 7.115)
- Prakash, K. S., Moorthy, R. S., **Gopal, P. M.**, & Kavimani, V. (2016). Effect of reinforcement, compact pressure and hard ceramic coating on aluminium rock dust composite performance. *International Journal of Refractory Metals and Hard Materials*, 54, 223-229. (Impact Factor: 3.407)
- Prakash, K. S., Kanagaraj, A., & **Gopal, P. M.** (2015). Dry sliding wear characterization of Al 6061/rock dust composite. *Transactions of Nonferrous Metals Society of China*, 25(12), 3893-3903. (Impact Factor: 2.615)
- Soorya Prakash, K., Sudhagar, S., Sakthivel, M., & **Gopal, P. M.** (2015). Parametric optimization of surface roughness in end milling of aluminium rock dust composite. In *Applied Mechanics and Materials* (Vol. 813, pp. 382-387). Trans Tech Publications Ltd.

Book Chapters

- **Gopal, P. M.**, Vijayananth, K., Rangappa, S. M., Siengchin, S., & Kumar, S. (2026). Fundamental of biobased epoxy vitrimer. In *Biobased Epoxy Vitrimer Composites* (pp. 3-30). Elsevier.
- **Gopal, P. M.**, Kavimani, V., & Sudhagar, S. (2025). Evolution and recent advancements of composite materials in industrial applications. In *Applications of Composite Materials in Engineering* (pp. 317-334). Elsevier Science Ltd.
- Kavimani, V., **Gopal, P. M.**, Thankachan, T., & Sivamaran, V. (2025). Evolution and recent advancements of composite materials in thermal applications. In *Applications of Composite Materials in Engineering* (pp. 119-138). Elsevier Science Ltd.
- **Gopal, P. M.**, Kavimani, V., & Sudhagar, S. (2024). Environmentally Benign Machining of Composites. In *Environmentally Benign Machining* (pp. 143-156). CRC Press.
- Sudhagar, S., Suresh, S., **Gopal, P. M.**, & Seenivasan, S. (2024). Applications of Medical Image Processing and Computer Vision in Healthcare. In *Robotics and Automation in Healthcare* (pp. 115-136). Apple Academic Press.
- Sukkasamy, S., & **Gopal, P. M.** (2022). Monitoring of the friction stir welding process: Upgrading towards industry 4.0. In *Advanced Manufacturing Techniques for Engineering and Engineered Materials* (pp. 173-182). IGI Global Scientific Publishing.

- Thankachan, T., Kavimani, V., & **Gopal, P. M.** (2022). Composites for Corrosive Wear Applications. In *Composite and Composite Coatings* (pp. 199-209). CRC Press.
- Kavimani, V., Gopal, P. M., Thankachan, T., & Prakash, K. S. (2022). Tribological properties of ceramic-reinforced metal matrix composite. In *Composite and Composite Coatings* (pp. 143-160). CRC Press.
- **Gopal, P. M.**, Kavimani, V., & Thankachan, T. (2022). Composites for High Temperature Wear Applications. In *Composite and Composite Coatings* (pp. 211-223). CRC Press.
- Kavimani, V., **Gopal, P. M.**, & Thankachan, T. (2022). Future scope of biofiber-based polymer composites. In *Advances in Bio-Based Fiber* (pp. 603-618). Woodhead Publishing.
- **Gopal, P. M.**, Kavimani, V., & Thankachan, T. (2022). Properties of filler added biofiber-based polymer composite. In *Advances in Bio-based Fiber* (pp. 263-273). Woodhead Publishing.
- **Gopal, P. M.**, Kavimani, V., & Bayraktar, Ş. (2021). A Brief Review on Green Manufacturing. In *Manufacturing and Industrial Engineering: Theoretical and Advanced Technologies*, (pp. 43-52). CRC Press.
- Kavimani, V., & **Gopal, P. M.** (2021). An Overview on the Role of Cloud Manufacturing in Modern Industries. In *Manufacturing and Industrial Engineering: Theoretical and Advanced Technologies*, (pp. 1-20). CRC Press.
- Sivaram, N. M., **Gopal, P. M.**, & Barik, D. (2019). Toxic waste from textile industries. In *Energy from toxic organic waste for heat and power generation* (pp. 43-54). Woodhead Publishing.
- **Gopal, P. M.**, Sivaram, N. M., & Barik, D. (2019). Paper industry wastes and energy generation from wastes. In *Energy from toxic organic waste for heat and power generation* (pp. 83-97). Woodhead Publishing.

Presentations

- Waste CRT Glass in Polymer Composites: A Path to Sustainable Materials, “KMUTNB Colloquium 2024”, Organized by The Sirindhorn International Thai-German Graduate School of Engineering (TGGS), KMUTNB, Thailand, 24th October 2024.
- Processing of Nanocomposites for Biomedical Applications, “5th IEOM 2020”, Organized by IEOM society, Detroit, USA, 10th to 14th August, 2020.
- Cloud Manufacturing in Modern Industries, “ICAME 2020”, Organized by Samrat Ashok Technological Institute, Vidisha, Madhya Pradesh, 9th and 10th July, 2020.
- A brief Review on Green Manufacturing, “ICAME 2020”, Organized by Samrat Ashok Technological Institute, Vidisha, Madhya Pradesh, 9th and 10th July, 2020.
- Characterization of Economical Aluminium MMC Reinforced with Weld Slag Particles, “ICAMT 2018”, Organized by Chennai Institute of Technology, Kandrathur, Tamil Nadu, 22nd and 23rd June, 2018.
- Multicriteria Optimization of Machining Parameters in WEDM of Titanium Alloy 6242, “ICAMT 2018”, Organized by Chennai Institute of Technology, Kandrathur, Tamil Nadu, 22nd and 23rd June, 2018.

- Effect of reinforcement and machining parameters on surface roughness in drilling Aluminium Rock dust composite, “eTimme 2017”, Organized by Government College of Engineering, Dharmapuri, Tamil Nadu, 22nd February, 2017.
- Investigation on SiCf / SiC Composites with SiBN Interface Processed through Chemical Vapor Infiltration, “ICMRA 2016”, Organized by CMR Technical Campus, Hyderabad, 11th and 13th March, 2016.
- Parametric Optimization of Surface Roughness in End Milling of Aluminium Rock Dust Composite, “ICMME 2015”, Organized by SCSVMV University, Kanchipuram, Tamil Nadu, 2nd and 3rd April, 2015.
- Experimentation to Examine Influence of Process Parameters on Surface Roughness in Machining Aluminium Rock Dust Composite, “INCAPIE 2015”, Organized by National Institute of Technology, Trichy, Tamil Nadu, 20th and 21st February, 2015.

Workshop/Seminar/FDP Attended

- AICTE Sponsored Five- Day ATAL workshop on “3D Printing and design” held during 16th to 20th September 2019 at the Department of Manufacturing Engineering, CEG, Anna University, Chennai – 25.
- Two-week Online FDP on “Managing Online Classes and Co-Creating MOOCs” organized by Teaching Learning Centre, Ramanujan College (University of Delhi) held during 20th April to 6th May 2020.
- Five Day ICT Academy FDP on “Autodesk Fusion 360” held during 25th to 29th September 2023 at Karpagam College of Engineering, Coimbatore.

Academic Leadership & Outreach

- **Session Chair**
 - International Conference on Research Developments in Engineering, Science and Technology (ICRDEST’22), Dhaanish Ahmed Institute of Technology, Coimbatore, Tamil Nadu, India.
 - National Conference on Innovations in Science, Technology, Agriculture and Healthcare Applications (NC-ISATH 2024), Nehru Group of Institutions, Coimbatore, Tamil Nadu, India.
 - The 2nd International Conference on Sustainable Technologies, Energies and Materials (STEM’25), King Mongkut’s University of Technology North Bangkok (KMUTNB), Thailand.
- **Resource Person**
 - ATAL Academy FDP on “Future Ready Manufacturing: The Synergy of AI and Smart Materials” organized by SIMATS, Chennai, Tamil Nadu, India.
 - Webinar on “Additive Manufacturing” organized by Dhaanish Ahmed Institute of Technology, Coimbatore, Tamil Nadu, India.
 - Webinar on “How to write a research Paper” organized by Bannari Amman Institute of Technology, Erode, Tamil Nadu, India.
- **Organizer (at KAHE, Coimbatore, Tamil Nadu, India)**
 - Workshop on “Prospects in Materials” on 27 and 28th September 2018.

- Seminar on “Advances in Engineering Materials” on 30th January 2020.
- Webinar Series (7 sessions) on “OBE – In Pursuit of Academic Excellence” during June- July, 2021.
- Webinar on “Advanced Material Characterization Techniques” on 07th October 2020.
- Webinars on “Know the Alphabets of Kashmiri”, “Fundamentals of Kashmiri Language”, “Tangible Heritage Tourism in Jammu & Kashmir”, “Tourism in Jammu and Kashmir”, “Geology of Kashmir”, “Sports and games of Kashmir” as a part of ‘Ek Bharat Shreshtha Bharat’ scheme during 2021-2022.
- Technical Symposium “Mectrotz - 2018, 2020 and 2022”.
- **Organizing Committee Member (at KAHE, Coimbatore, Tamil Nadu, India)**
 - International Conference on Minerals, Materials and Manufacturing Methods ICM MMM’ 22 on 18 and 19th March 2022 (Sponsored by AIU).
 - Faculty development programme on “interpretation of Instrumental Techniques (IIT 2022)” on 24 to 29th January 2022.
 - International Conference on Recent Advancements in Materials Science and Technology (ICRAMST’ 24) on 29 and 30th January 2024 (Sponsored by SERB).

Journal Reviewer

- Advanced Engineering Materials
- Archive of Mechanical Engineering
- Biomass Conversion and Biorefinery
- Cogent Engineering
- Composites Part C: Open Access
- Expert Systems with Applications
- Heliyon
- IEEE Access
- International Journal of Metalcasting
- Journal of Alloys and Compounds
- Journal of Composite Materials
- Journal of Engineering Research
- Journal of Industrial Textiles
- Journal of Manufacturing Processes
- Journal of Materials Engineering and Performance
- Journal of Mechanical Science and Technology
- Journal of Science: Advanced Materials and Devices
- Matéria (Rio de Janeiro)
- Materials Chemistry and Physics
- Materials Today Communications
- Materials Today: Proceedings
- Modern Physics Letters B
- Multidiscipline Modeling in Materials and Structures

- Next Materials
- Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering
- Process Integration and Optimization for Sustainability
- Science of the Total Environment
- Silicon
- Simulation Modelling Practice and Theory
- Surfaces and Interfaces
- Surface Review and Letters
- Sustainable Chemistry and Pharmacy
- Tribology International
- Wear
- Welding International
- World Journal of Engineering

Referees

- **Dr. K. Soorya Prakash,**
Assistant Professor and Head,
Department of Mechanical Engineering,
Anna University Regional Campus, Coimbatore, Tamil Nadu, India.
Mail: k_soorya@yahoo.co.in
- **Prof. Dr.-Ing. habil. Suchart Siengchin,**
Director -Techno Park and Former President,
King Mongkut's University of Technology North Bangkok, Thailand.
Mail: suchart.s.pe@tggs-bangkok.org
- **Assoc. Prof. Dr. Sanjay Mavinkere Rangappa,**
Principal Research Scientist (Specialist 3) & Associate Professor,
King Mongkut's University of Technology North Bangkok, Thailand.
Mail: mcemrs@gmail.com

Declaration

I, P. M. Gopal, hereby declare that the information contained herein is true and correct to the best of my knowledge and belief.

Dr. P. M. Gopal
January 2026