

Faculty Profile



Dr. A. Madhankumar, M.E., Ph.D

Assistant Professor (OG) – Department of Mechanical Engineering

HIGHLIGHTS:

- ❖ Number of Journal Publications: **05**
- ❖ H-Index: **04**
- ❖ Project Funding Received: Nil
- ❖ Patents Published: Nil
- ❖ Patents Granted: Nil

PROFESSIONAL LINKS:

- ❖ Scopus ID: **59760897700**
- ❖ Scopus Link: <https://www.scopus.com/authid/detail.uri?authorId=59760897700>
- ❖ Google Scholar ID: <https://scholar.google.com/citations?user=DiCf2QMMAAAJ&hl=en>
- ❖ Anna University Faculty ID: **326602**
- ❖ AICTE Faculty ID: 1-9506883279
- ❖ Anna University Supervisor ID: Nil
- ❖ LinkedIn: <https://www.linkedin.com/in/dr-madhankumar-a-bb5b31b1/>

PROFESSIONAL BACKGROUND:

- ❖ Teaching Experience till date: **10 months**
- ❖ Industrial Experience: **01 year**

AREA OF SPECIALIZATION:

- ❖ Ceramic Matrix Composites
- ❖ Additive Manufacturing
- ❖ Powder Metallurgy
- ❖ Material Synthesis & Characterization

COURSES CERTIFIED:

- ❖ Completed the NPTEL course “**Artificial Intelligence and Machine Learning in Materials Engineering**”, gaining strong foundational skills in applying AI/ML methods to materials modelling and analysis.
- ❖ Completed the NPTEL course “**The Joy of Computing Using Python & Robotics**”, gaining valuable knowledge and practical skills in Python programming, computational problem-solving, and robotics applications.

CONFERENCES/SEMINARS/WORKSHOPS ATTENDED:

- ❖ The research work “Experimental investigation of mechanical properties of hybrid natural fibre composites” was presented at the second National Conference on Recent Developments of Chemistry in Engineering Applications (**NCEA – 2019**) held at SRM Valliammai Engineering College in Chennai, Tamilnadu, India.
- ❖ The research paper “Influence of oxide-based reinforcements in oxide-oxide Ceramic Matrix Composites (CMCs)” was presented at the 16th Global Congress on Manufacturing and Management (**GCMM -2022**) in Auckland, New Zealand.
- ❖ Attended a Two-day workshop on “**Advanced IC engine**” at IIT Chennai.
- ❖ Attended the workshop “**Materials and characterization techniques**” organized by VIT Vellore & DST from 4-11 July 2022.
- ❖ Participated in the short course on “**Hands-on Training: 3D Printing Health and Safety Measures**” held on 10 March 2023 at VIT Vellore.

PEER REVIEWER IN JOURNALS:

- ❖ Ceramics International, Elsevier (I.F. 7.9)

JOURNAL PUBLICATIONS:

- ❖ **Madhankumar A**, S. Das, P. Jeyapandiarajan and Anthony Xavier M., Influence of oxide-based reinforcements in oxide-oxide Ceramic Matrix Composites (CMCs), **Materials Today: Proceedings**, 2023, <https://doi.org/10.1016/j.matpr.2023.05.712>.
- ❖ **Madhankumar A** and Anthony Xavier M, “Graphene reinforced ceramic matrix composite (GRCMC) – state of the art” **Engineering Research Express** (2024) 6 022503, 10.1088/2631-8695/ad476a. (I.F. 1.6)
- ❖ **Madhankumar A** and Anthony Xavier M, “Material characterization of graphene and boron nitride for composites reinforcement” **Engineering Research Express** (2024) 6 25521, 10.1088/2631-8695/ad443a. (I.F. 1.6)
- ❖ **Madhankumar A** and Anthony Xavier M, “Mechanical and Microstructural Characterization of Graphene Reinforced Alumina Ceramic Matrix Composite” **Results in Engineering** (2025) 25 103942, <https://doi.org/10.1016/j.rineng.2025.103942>. (I.F.

7.9)

- ❖ **Madhankumar A** and Anthony Xavier M, “Synthesis and Characterization of Boron Nitride Reinforced Alumina Ceramic Composites” **Diamond and Related Materials** (2025) 156 112396, <https://doi.org/10.1016/j.diamond.2025.112396>. (I.F. 5.1)

TECHNICAL EVENTS ORGANIZED

- ❖ Coordinated the “**International Conference on Materials, Manufacturing and Modelling (ICMMM 2023)**”, held at Vellore Institute of Technology, Vellore in March 2023. Actively involved in organizing technical sessions, managing delegate communication, and ensuring smooth execution of conference logistics.
- ❖ Organized the Two-Day Workshop on “**Additive Manufacturing for Future: AM2030**”, held at Vellore Institute of Technology, Vellore in March 2024. Involved in session planning, resource coordination, and participant engagement, contributing to the success of the event.
- ❖ Coordinating the One-day International Workshop titled “**Hydrogen-Material Interactions: Advancing Storage Solutions and AI Technologies**”, scheduled to be held at Vellore Institute of Technology, Vellore, on February 2025. Responsible for planning technical content, coordinating with speakers, and managing workshop logistics.
- ❖ Coordinated the One-day International Workshop titled “**Pioneering Advances: AI and ML Leading the Change in Hydrogen-Materials Interactions and Laser Innovations**”, held at Vellore Institute of Technology, Vellore, in March 2025.