

Centre for Additive Manufacturing

(Innovations in Biomedical Structures and Advanced Materials)

Dr. Praveen A. S.

Professor-Mechanical Engineering

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The Centre for Additive Manufacturing focuses on the **development of bone tissue engineering scaffolds and biomimetic structures using various additive manufacturing (AM) techniques**. The centre is led by **Dr. Praveen A. S.**, Professor in the Department of Mechanical Engineering at Vel Tech Deemed to be University, Chennai. He holds a Ph.D. from NIT Trichy and specializes in Additive Manufacturing, Thermal Spray Coatings, and Tribology. With over a decade of teaching experience and 3.5 years of dedicated research, his work primarily focuses on additive manufacturing for biomedical applications and the development of erosion and wear-resistant coatings. He has secured research funding ₹61 lakhs from agencies such as DST and DRDO. Authored more than 40 publications in reputed journals and holds an H-index of 13, with a total of 763 citations.

Looking for PhD students to work in the following areas

- Design and fabrication of bone tissue engineering scaffolds
- Development of biomimetic structures using 3d printing
- Finite element analysis (FEA) of scaffolds/biomimetic structure performance
- Development of novel materials for additive manufacturing

Facilities available

- ✓ Extrusion based ceramic 3D printer (Fabforge)
- ✓ Digital light processing (DLP) printer (Elegoo)
- ✓ Fused deposition modelling (FDM) printer (Flashforge, Stratasys and Creatbot)
- ✓ Filament making machine (RP3D)
- ✓ Testing and characterisation instruments
- ✓ Free access to Elsevier journals and databases

Benefits and opportunities

- ➤ Monthly fellowship of Rs. 25,000/- for three years
- Opportunities to publish in SCI-indexed high-impact journals
- Financial support to attend national conferences and workshops
- > National and international research collaborations
- ➤ Hands-on experience with advanced AM tools and simulation software

Contact details

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