

MECHANICAL ENGINEERING DEPARTMENT

May 30, 2026

**ADVERTISEMENT FOR POSTDOC FELLOW IN CENTRE OF EXCELLENCE IN
ADDITIVE MANUFACTURING (CoE-AM) SPONSORED PROJECT**

Letter No: CoEAM/2026/08

**Project Title: Functionally Graded Multi-Material Low-Pressure Turbine Blades via
Laser Directed Energy Deposition**

Position: Post Doctorate Fellow (PDF)

Duration: 12 months (Can be Extended upto 24 months)

Stipend: Consolidated Rs 60,000 PM

About the project: This project focuses on developing advanced coatings on additively manufactured Ti-6Al-4V turbine blade materials using Laser Directed Energy Deposition (DED) technology. The study aims to improve wear resistance, fatigue life, and interfacial stability of low-pressure aero-engine turbine blades operating under severe thermal and mechanical conditions. A novel functionally graded coating approach will be employed to reduce thermal mismatch and prevent crack formation between the coating and substrate. The proposed work is expected to significantly enhance blade reliability, reduce maintenance costs, and improve operational safety in aerospace applications.

Qualifications:

Essential: First class PhD in Mechanical Engineering / Design Engineering / CAD/CAM Engineering / Production Engineering/Material Science or relevant Discipline (Awarded).

Desirable: The candidate should possess a good knowledge of Additive Manufacturing Processes, Metal 3D Printing, Surface Engineering, CAD/CAM software, and Materials Science. Additionally, candidates with strong experience in manufacturing are encouraged to apply.

Last date of application: 10th June, 2026

How to Apply:

1. Interested candidates are requested to submit a detailed CV to through email (with the subject as "Project Vacancy to CoE-AM Project") to the PIs rsjoshi@thapar.edu & malkeet.singh@thapar.edu before the last date.
2. Shortlisted candidates will be intimated for the online interview by email only.
3. In case of any query related to above project, kindly email Dr. Ravinder Singh Joshi.

Dr. Ravinder Singh Joshi
(PI), MED
TIET

Dr. Collin Hall
(Co-PI)
Adelaide
University, AUS

Dr. Malkeet Singh
(Co-PI), CoE-AM
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Dr. Amritbir Singh
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Dr. Aishwarika Sharma
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