

Post-Doctoral Researcher for Laser-based Additive Manufacturing of Metals

The Professorship of Laser-based Additive Manufacturing at the Technical University of Munich (TUM) welcomes applicants for the position of a post-doctoral researcher for research contribution in and management of an EU project on green Additive Manufacturing through innovative beam shaping and process monitoring.

About us

Located in the capital of Bavaria and home to over 39000 students, the TUM can be found amongst the world's top universities (e.g. TUM top 4 European technical universities in THE World University Ranking) and home to one of the most vibrant environments in Additive Manufacturing (AM), committed to excellence in research and teaching, interdisciplinary education, and the active promotion of promising young scientists. Munich benefits from the healthy mix of AM companies and startups of all sizes headquartered in the region. The Professorship of Laser-based Additive Manufacturing is part of the TUM School of Engineering and Design and combines basic research with the application in order to shape the still young additive manufacturing environment. We are seeking for a highly motivated post-doctoral researcher with the ability to work independently and to participate creatively in collaborative teams.

Key Responsibilities

- Supporting the coordination and planning of meetings with industrial and scientific partners during the EU project,
- Maintaining the communication and exchange with industrial and scientific partners during the project,
- Work within a committed team of engineers and scientists to implement beam shaping technologies in industrial additive manufacturing machines,
- Conduct beam shaping experiments and testing of the resulting components,
- Driving publication of projects results in leading journals and conferences in the Additive Manufacturing community,
- Co-supervision of PhD candidates and Master's and Bachelor's students,
- Funding acquisition and management of research proposals (scouting potential opportunities, form consortia, proposal writing) related to the field of expertise.

Requirements

- Ph.D. in mechanical engineering, material science or a related discipline,
- Proven background in laser-based additive manufacturing, powder bed fusion of metals is highly recommended,
- Ability as an innovative experimentalist with a broad range of experience in experimental design, techniques and execution,
- Proficient verbal and written communication skills as reflected in effective presentations at seminars, meetings and/or teaching lectures,

- Initiative and interpersonal skills with desire and ability to work in a collaborative, multidisciplinary team environment,
- Experience in self-reliant managing of research projects (financial and administrative) and leading a research team,
- Previous record of funding acquisition (independent or contributing) is a major plus,
- Fluency in spoken and written English and German.

We offer

- A stimulating, high-paced environment for cutting-edge research in the field of laser-based additive manufacturing,
- An exceptional opportunity to experience research in a highly inspiring international environment and to learn from some of the world's leading researchers,
- A responsible position with interesting and challenging tasks in an interdisciplinary scientific and management team worldwide networking opportunities with leading researcher and companies in the field of Additive Manufacturing,
- Workplace that is located in Garching near Munich and is easily accessible by public transport,
- Remuneration in line with the current German public service salary scale (i.e., TVL E13 based on the experience level of the applicant).

How to apply?

The following documents are needed for applications:

- A motivation letter (1-2 pages) describing (i) yourself, (ii) your research interests, (iii) your qualifications, (iv) your future career goals and research focus and (v) why you would be a suitable candidate,
- A detailed CV including relevant publications,
- Academic transcripts from your Bachelor's and Master's and PhD's degrees,
- Email addresses of at least two references.

Interested applicants should send the necessary documents via email to personal.lbam@ed.tum.de quoting "Postdoc Position in Additive Manufacturing" in the e-mail subject line. The position will be filled as soon as possible and only shortlisted candidates will be notified. TUM has been pursuing the strategic goal of substantially increasing the diversity of its staff. As an equal opportunity and affirmative action employer, TUM explicitly encourages nominations of and applications from women as well as from all others who would bring additional diversity dimensions to the university's research and teaching strategies. Preference will be given to disabled candidates with equal qualifications. International candidates are highly encouraged to apply.

Technical University of Munich

Professorship of Laser-based Additive Manufacturing

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