

PhD position in Metal Cutting

University of Ljubljana (UL) is the biggest higher education and research institution in Slovenia. UL is a very large university, with more than 52.000 students and 6.264 employees; out of which approximately 3.700 are engaged in research.

Research expertise, experimental facilities and in fracture

Department of Manufacturing Technology Management as a part of Faculty of Mechanical Engineering under University of Ljubljana, performs research on manufacturing technologies, machining processes and technologies, reverse engineering and rapid prototyping. Individuals of research department team are members of different known and important scientific committees with high reputation. Researchers have expertise in fundamental and applied research in machining of super-alloys, aluminum alloys and other advanced materials. Additional expertise refers to tribology of metal cutting, tribo-chemical, and structural surface characterization, cleaner production, and cryogenics (core expertise worldwide). The base activities are oriented to scientific research work with education activities and cooperative preparing of their programs; offering technical, advising and other services; cooperative work in education of research workers; transfer of new development and research results for development of scientific disciplines and special fields; acceleration of implementation of students in research work and graduate studies; collaboration with research and other organizations; studying of possibilities of science research work results transfer in real applications (industry); organization of scientific and technical conferences. The group steadily produces high level scientific contributions that are published in international journals and conference proceedings. In the past, department developed different machining/production technologies and concepts for different production types and has solved numerous industrial problems in collaboration with Slovenian and other EU and world-wide industries.

LINK: <http://lab.fs.uni-lj.si/labod/eng/>

PhD position field

The broad PhD research topic is going to be the field of Manufacturing Technology, primarily oriented in metal cutting, innovative machining processes, sustainable machining processes, reverse engineering, partially additive manufacturing, or so.

Major responsibilities

- Conduct independent research in machining processes
- Run the actual applicative industrial projects
- Run experimental (machining) tests and conduct material-characterization work
- Provide support (technical consultation) to other researchers in the group/research center
- Support strategic research in "Innovative sustainable machining processes"
- Engage in national/international networking/dissemination activities (e.g. conferences, Meetings, etc.)

- Support teaching activities in the field of Manufacturing Technology (B.Sc. and M.Sc courses)
- Boost your own career via training and development of complementary skills (e.g. in project management)

Position summary

Full-time employment as a young researcher. PhD tuition is covered by employer. The position is limited to 4 years.

Qualifications

- Finished BSc and MsC degree
- Average grade from both BSc and MSc (together) higher than 8.0 (on scale from 5-10, 5 no pass, 6 minimum to pass, 10 max grade)

Experiences and skills:

- knowledge on metal cutting (operations, forces, thermal aspects, surface integrity, tribology & tool wear, cutting-tool materials, machinability, coolants and lubricants, modeling and simulation)
- Excellent communication skills (oral and written) in English

For questions, please contact:

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Services

