



The Institute of Mechanics and Mechatronics is located at the Faculty of Mechanical and Industrial Engineering of the TU Wien. Our research team is made up of graduates from a wide range of disciplines such as mathematics, physics, mechanical engineering and industrial engineering. Within the framework of research cooperations with industrial partners, we conduct application-oriented basic research with a focus on modelling, optimisation, simulation and control engineering.

## PreDoc Researcher in Control Engineering

(full-time positions)

We are looking for **research assistants (pre-doctoral scientists)** to expand our work group of Control and Process Automation.

We offer several interesting and challenging positions at the TU Wien with a focus on modern control engineering methods (modelling & system identification, simulation, linear & non-linear control, optimisation). In particular, we seek highly motivated candidates for positions in the following research fields:

- **inter-modal modelling of traffic flows and interactions,**
- **traffic flow and human interaction learning models and optimisation,**
- as well as other topics in **optimal control & estimation in automotive, mechatronics, and energy systems.**

These positions offer the possibility to write a dissertation and are offered as full-time positions (40hrs/week).

### Your profile:

- Completed (or advanced) relevant undergraduate (MSc-level) university studies, e.g. mathematics, physics, mechanical engineering, electrical engineering, process engineering or mechatronics
- Prior experience in relevant fields, such as analytic and data-based modelling, stochastics, parameter identification, simulation, optimisation, learning systems (deep learning, transfer learning, online learning), optimal and model-predictive control.
- High interest in research in the subject-specific areas and working with students.
- High degree of motivation and commitment; goal-oriented and structured way of working, scientific method.
- Ability to work in a team (working language: English)

### Your areas of responsibility:

- Scientific work in our research team
- Direct contact and cooperation with renowned industry partners in research projects
- Preparation of scientific publications and conference presentations
- Cooperation in university teaching

### Your advantages:

- Full-time employment as part of a multi-year research project
- Possibility of obtaining a doctorate (Dr. techn.)
- Scientific guidance and support in our dynamic and innovative research team environment
- Wide range of internal and external further training courses and flexible work arrangements
- Central location and good accessibility (U1/U4 Karlsplatz)
- Additional benefits for employees in the fringe benefit catalog of the Vienna University of Technology:  
[https://jobs.tuwien.ac.at/Content/files/Fringe\\_Benefit\\_Katalog\\_TUW\\_ck.pdf](https://jobs.tuwien.ac.at/Content/files/Fringe_Benefit_Katalog_TUW_ck.pdf)

Please send us your detailed application documents (including a letter of motivation and CV) via email to [career.E325@tuwien.ac.at](mailto:career.E325@tuwien.ac.at) at your earliest convenience, latest December 15<sup>th</sup>, 2022. Please direct any queries to this email.

**Selected reference projects:**

- <https://www.tuwien.at/en/mwbw/imm/e325-04-research-unit-of-control-and-process-automation/research-projects/connat>
- <https://www.tuwien.at/en/mwbw/imm/e325-04-research-unit-of-control-and-process-automation/research-projects/intintsec>

**Contact:** Univ.Prof. Dr. Stefan Jakubek, TU Wien, Institute of Mechanics and Mechatronics,  
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For the advertised position (full-time), the collective agreement tariff for project assistants, salary group B 1, § 49 (3) KV applies. The advertised position is subject to a minimum basic salary of EUR 3,058.60 gross per month (full-time equivalent). The university strives to increase the proportion of women, particularly in management positions and among scientific and artistic staff, and therefore expressly encourages qualified women to apply. Applicants who are equally suitable as the most suitable competitor will be accepted as a priority, unless the reasons for their application lie in the person of a competitor. Disabled persons with appropriate qualifications are explicitly invited to apply. If you have any questions, please contact the representative for people with disabilities at TU Wien, Mr. Gerhard Neustätter.