



Cognitive and Sustainable Products and Production Systems of the Future

Pro²Future – Cognitive and Sustainable Products and Production Systems of the Future – is an industry-oriented COMET K1 research center in the field of Artificial Intelligence (AI) and cognitive/industrial ICT, Human-Machine Interaction (HMI), and data-driven process optimization, with a focus on cognitive and sustainable products and production systems. These are supported by the areas of Perception, Orchestration, and Analytics. Further fields of activity at the center include mechatronic systems, embedded systems, pervasive computing systems, and big data analytics.

To strengthen our team, we are currently looking for a dedicated individual for the following position:

Senior Researcher Industrial AI & Cognitive Production Systems (completed doctorate required) (m/f/d)

Full-time (38,5) or part-time (30,0) | Location: Graz

In our **Cognitive Production Systems** research area, we are looking for an accomplished individual with a **completed doctorate** to take the lead in shaping and driving forward-looking, industry-relevant research topics as a **Senior Researcher**.

Your Research Focus in an Industrial Environment

In the **Cognitive Production Systems** research area, we develop and research intelligent, cyber-physical manufacturing systems at the interface of production engineering, industrial AI, digital twins, and robotics. The focus is on adaptive process optimization, predictive decision support, and data-driven energy and quality analyses for sustainable, human-centered production processes in the spirit of Industry 5.0.

The core focus is on the **in-depth optimization of production processes** through the targeted use of modern simulation tools and AI methods.

Your Tasks & Responsibilities

- **Project leadership & consortium management:** Independent leadership of research projects as well as the establishment and coordination of research consortia.
- **Acquisition & strategy:** Identification of relevant funding calls and acquisition of project and research partners to secure long-term funding for the research area.
- **Support for early-career researchers:** Providing guidance to colleagues on technical questions and actively contributing to knowledge sharing within the team.
- **Publications:** Writing scientific publications and presenting research results at conferences and in scientific journals.

What Awaits You With Us

- **Independent work** at the interface between academic excellence and global industry leaders.
- **Strategic input** into shaping the department, with the opportunity to establish your own research focus areas in cognitive production.
- Opportunities for **scientific publications & conference participation**.
- A young, collegial, and appreciative working environment.
- Flexible working hours and flat hierarchies.

What You Should Bring

- **Mandatory:** A completed doctorate (PhD) in mechanical engineering, automation technology, mechatronics, data analytics, or a comparable discipline.
- Solid experience in production planning and simulation, measurement technology, and data analysis, as well as an understanding of the physical mechanisms at play on the shop floor.
- Very good knowledge of mathematical modeling, in particular **(multi-)linear algebra, multivariate analysis, and applied statistics**.
- Experience in strategic IT/OT convergence using **semantic data models** (e.g., OPC-UA) and scalable MQTT/edge infrastructures.
- Demonstrable experience linking **physics-based simulations** (e.g., Siemens Plant Simulation) with data-driven methods via **Python/PyTorch**. You are able to translate physical manufacturing phenomena (e.g., cutting forces, thermal behavior) into abstract mathematical representations for state-of-the-art **machine learning frameworks**.
- Experience in research projects, ideally with responsibility for work packages, sub-projects, or the coordination of research and innovation activities.
- Experience collaborating with industry and research partners, as well as in developing and preparing research proposals and research projects.
- Very good written and spoken German and English (at least C1 level in both languages).

What Our Working Environment and Framework Conditions Offer

- **Flexible working models:** Results-oriented work with the option of working from home and modern infrastructure at our Graz location.
- **A first-class network** connecting you with leading figures from science, business, and politics.
- Strong integration into the Austrian research and university landscape.
- Active promotion of **women in research**.
- **Respect, diversity, and equal opportunity** as lived values.
- For this position, we offer a gross annual salary of **EUR 70,500 (full-time basis)**.



Flexi-Worktime



Free Coffee



High-end Equipment



Home-Office



Internal Trainings & Study Opportunities



Structured Onboarding



Fresh Fruits



Restaurants & Menus



Brand New Offices



Employee Events



Public Transport



Central Location



Food Allowance

Please send your application by e-mail to: jobs@pro2future.at

(CV, cover letter, list of projects and publications). Only complete applications can be considered.

Contact: Christina Pichler | jobs@pro2future.at | [+43 664 888 78 903](tel:+4366488878903)