The Automation and Control Institute at TU Wien is seeking applicants for a

PhD-Position (m/f/d):

"Optimal Charging of Discontinuous Annealing Furnaces in the Metals Industry"

You can expect:

Within the Complex Dynamical Systems Group (**Prof. Andreas Kugi**) you will develop together with an **internationally operating industrial research partner** methods for the optimal charging of discontinuous annealing furnaces used in the metals industry.

Tasks:

- Design of an interface for an available thermal model of a discontinuous annealing furnace
- Formulation and solution of mathematical optimization problems for the optimal charging of discontinuous annealing furnaces (selection, sequence and geometric positioning of products)
- Development of an algorithm for automatic optimal charging of discontinuous annealing furnaces and software programming
- Test of the developed strategies in simulations and on a test bench of the research partner

Your profile:

- Completed study (master level) in mathematics, control engineering, computer science, mechatronics, electrical engineering, mechanical engineering, process engineering
- Excellent analytical capabilities
- High motivation and readiness to contribute to the academic teaching
- Committed and reliable team player with an independent and precise way of working
- Very good knowledge of the German and English language

Our offer:

- Research in an interesting and innovative field of technology
- Opportunity to write a PhD thesis and participation in international scientific conferences
- Close supervisory relationship and intense dialogue in a dynamic and highly motivated team
- Three-year fixed term contract (40h/week) with the option for prolongation
- Annual salary € 45.882,20,- (gross)

We are looking forward to receiving your application including the usual documents via e-mail sent to applications.cds@acin.tuwien.ac.at. In case of questions, please contact Prof. Andreas Steinböck (e-mail: andreas.steinboeck@tuwien.ac.at).

About us

The Automation and Control Institute (ACIN) belongs to the Faculty of Electrical Engineering and Information Technology of TU Wien. At ACIN, more than 80 researchers conduct basic research, solve challenging practical problems, cooperate with industrial research partners, develop innovations, and offer students excellent academic teaching in the fields systems theory, automation, and control engineering. More info at https://www.acin.tuwien.ac.at/komplexe-dynamische-systeme-cds/.