

Postdoctoral researcher in Process Control

Aalto University School of Chemical Technology is currently looking for target oriented persons to be hired for fixed-term postdoctoral researcher positions in

- 1) **Real-time, multilevel optimization of industrial processes**
- 2) **MPC(Model Predictive Control) & process performance monitoring**
- 3) **FDD (Fault Detection and Diagnosis) of industrial systems; industrial internet**

In a European cooperative project, in co-projects with the Finnish process industries and/or Aalto university level research projects, the industrial chemical processes shall be intensified by applying new, robust optimization-based control and estimation methods, FDD and/or monitoring such that sustainable real-time operability and energy efficiency can be guaranteed. The research challenges include the modeling of complex systems, data mining and tailored process control and monitoring via Industrial Internet.

You will develop methods for robust model-predictive control, which allow the safe and reliable operation of the underlying processes and/or real-time multi-level optimization methods and/or FDD methods. The applicability and performance of the methods developed are demonstrated in industrial settings. Furthermore, you will contribute to lectures, software development and other duties within the research group.

You have attained an excellent doctoral degree (Ph.D. /D.Sc. or equivalent) in process control or in a related field such as chemical engineering/process systems engineering, mathematics or physics. You are interested in interdisciplinary cooperation and have good communication skills. Experience in modeling and/or optimizing technical systems and knowledge of Matlab or C/C++ complement your profile.

We offer a fixed-term position of one year with a possibility for renewal. Salary will be determined according to the Local Agreement of Aalto University.

For additional information, please contact Professor Sirkka-Liisa Jämsä-Jounela, e-mail: firstname.lastname@aalto.fi or visit our website http://chemtech.aalto.fi/en/research/process_control_and_automation/

Your application materials should include a cover letter, CV, publication list and the names and contact details of possible references.

Please send your application through our recruitment system Saima (link below) by **September 30th, 2016**.

<http://www.aalto.fi/en/about/careers/jobs/view/954/>