For further information, please do not hesitate to contact:

Prof. Dr. Sergio Lucia

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We explicitly note that applications of all sexes are welcome. Applications from women are favored complying with legal regulation.

We also underline that applications of severely disabled persons are welcome

Applications enclosing curriculum vitae, latest grades and degrees, a motivation letter, and contact details of two references should be sent until

31.08.2022under reference number **w75-22** to:

open-positions@ls9.cs.tu-dortmund.de

Doctorate position

* Experience in at least one of the research areas: model predictive control, process control, numerical optimization, machine learning.
* Good programming skills and experience in developing simulation studies with Python.
* Very good written and oral language German (at least B2) and English (at least C1) knowledge.
* Excellent organizational and communication skills.
* Willingness to conduct interdisciplinary research, especially in cooperation with computer scientists.

**Responsibilities:**

* Independent research at the interface between control engineering, machine learning and applications related to the internet of things, fog computing and its possible use in industry.
* Dissemination of research results in the form of peer-review international publications and participation at international conferences.
* Support of the internal organization of the Laboratory of Process Automation Systems

The Laboratory of Process Automation Systems of the Department of Biochemical and Chemical Engineering of TU Dortmund University invites applications for a research assistant position. The initial employment for three years can start at the earliest possible date. According to the public tarif regulations, the salary is based on the tarif group E13 TV-L with 100 % of the regular work time. The positions are, in principle, also appropriate for part time employment. The position includes the option to prepare a PhD thesis in the framework of a project funded by the German Research Foundation with the goal of using optimization and control to improve the design of fog computing systems in the context of the internet of things.

The Laboratory of Process Automation Systems is a dynamic and recently established research group. The members of the group work closely together in a friendly and supportive environment. Our research focus lies at the interface between automatic control, numerical optimization and machine learning. Our goal is to develop new methods that can power the sustainable processes of the future.

**Requirements:**

* Successfully completed university degree (Master or equivalent) in Engineering with a focus on automation, control, numerical optimization or related areas.