

Post-doc position at the Delft Center for Systems and Control, TU Delft, Netherland

Description:

The Delft Center for Systems and Control of Delft University of Technology, The Netherlands, is seeking qualified candidates for a two-year position (possibly extendable to three) as a post-doctoral fellow within the research area of modelling and control of heating, ventilation and air conditioning (HVAC) systems.

The challenge:

In the last years TU Delft has been building and developing "The Green Village", an outdoor laboratory for experimenting new smart energy technologies. Within the lab premises, an experimental passive climate system is currently under construction, consisting in a climate tower that aims to combine various functionalities: integration of passive cooling / heating and ventilation, heat storage by integrated thermally active materials (phase change materials), regulation of solar access through blinds, etc.

Because the design is experimental, a holistic thermal/energy model of the climate tower is to a large extent missing, let alone a control system that could seamlessly operate the subsystems with energy efficiency and thermal comfort guarantees. Providing the scientific understanding for modelling and control of this experimental climate system is the core goal of this position. The position is funded by the TKI Urban Energy project "CONVERGE".

Requirements:

We are looking for a candidate with a PhD degree in Systems and Control, Energy Engineering, Mechanical Engineering or a closely related discipline, with a strong background in modelling and control of HVAC/smart energy systems, and with expertise in energy simulators such as EnergyPlus, TRNSYS, Modelica (or similar). An excellent publication record will be evaluated very positively. A good command of the English language is required.

Conditions of employment:

TU Delft offers an attractive benefits package, including a flexible work week and the option of assembling a customised compensation and benefits package (the 'IKA').

Salary and benefits are in accordance with the Collective Labour Agreement (CAO) of the Association of Universities in the Netherlands (VSNU), and are depending on the qualifications and experience of the candidate selected.

Information and application:

For more information about this position, please contact Dr. Simone Baldi (s.baldi@tudelft.nl). Applicants should submit their letter of application along with a detailed curriculum vitae, a research statement

indicating your background and interests and how they align with the position (around one page long), a list of publications, title and abstract of your PhD dissertation, the PDF files of two key publications, contact information for at least two academic references and all other information that might be relevant to your application to Dr. Simone Baldi. A first selection will be made based on the submitted material, and selected candidates will undergo a Skype interview.

The initial application deadline for the position is April 2, 2019, but the position will stay open until a suitable candidate has been appointed.