

The **Chair of Architecture and Building Systems (A/S)** researches on active and passive systems for the energy supply and climate control of buildings. Our projects range from components to neighborhoods, from design to operation. The motivation and aim of our research is to realize a CO2-neutral built environment that efficiently consumes and produces energy while providing high user comfort. The A/S Chair is part of the **Institute of Technology in Architecture (ITA)**; one of the leading institutes for research and teaching of technologies in architecture. Its home is the Arc_Tec_Lab at ETH Hönggerberg, which functions as both a collaborative workspace and laboratory - and a demonstration of research in application.

Developer for energy and climate systems plugin for Grasshopper, Rhino (80%)

hive is a new open source toolbox, which focuses on teaching concepts of Energy and Climate Systems integration in buildings. It is developed under the Chair of Architecture and Building Systems (Prof. Dr. Arno Schlueter). The ultimate goal of hive is to empower students of architecture and engineering to integrate aspects of energy consumption and efficient supply systems to target zero energy, plus energy and zero emission buildings.

Key responsibilities include research, development and integration of calculation models for energy systems, coding python-scripted components and integrate them as part of the toolbox, as well as validation of toolbox results. In addition, support of master theses students with topics related to the tool development, as well as supporting and actively engaging the community of hive users. Finally, the successful candidate will report findings and progress in team meetings.

We are looking for a highly motivated and skilled candidates with a Master's degree in engineering or with an equivalent relevant background to join our interdisciplinary team in Zurich and contribute in the inauguration and development of hive. He/she should have strong experience in coding with high level languages, preferably with Python, excellent command of Rhino and Grasshopper, and must be comfortable with learning other toolboxes. Good knowledge of building energy systems and building energy simulation is a must, and they should be fluent in English (spoken, as well as written).

We look forward to receiving your online application including the following documents: Cover letter (one page) including a short statement of experience and qualification, a comprehensive CV and/or projects portfolio, as well as proof of work on Rhino and Grasshopper projects (i.e. Python and/or Grasshopper scripts or components). If programming was conducted in another language, such as C#, FORTRAN etc. Please send a sample of previous scripts/projects as well). Please note that we exclusively accept applications submitted through our online application portal. Applications via email or postal services will not be considered.

Information about the Chair of Architecture and Building Systems is available here: www.systems.arch.ethz.ch. Questions regarding the position should be directed to Dr. Amr Elesawy by email elesawy@arch.ethz.ch (no applications) or phone +41 44 633 01 59.



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