



AEE – Institute for Sustainable Technologies (AEE INTEC) is an independent research institute and one of the leading institutes in applied research in the fields of *Thermal Energy Technologies and Hybrid Systems, Sustainable Buildings and Industrial Processes and Energy Systems*. AEE INTEC is located in Gleisdorf (20 km east of Graz, Austria) and currently employs a staff of about 90 people from more than 13 different countries.



AEE INTEC currently investigates within the research group "On-Grid Energy Supply and System Analysis", among other topics the efficient and effective application and integration of renewable energy sources in urban and regional energy supply systems. Analysis and optimization of on-grid heat supply systems, development of intelligent and comprehensive hybrid energy supply systems combining several resource streams as well as holistic approaches for analysing and evaluating energy and resource cycles for urban and regional settings are current challenges AEE INTEC is focussing on in its research. To tackle these challenges, AEE INTEC applies and develops new analysis, simulation and optimization tools and uses monitoring and simulation tools to investigate and optimize the operation of energy supply systems. These challenges are investigated within the scope of national and international research projects in cooperation with renowned partners from industry (e.g.; utility services, technology and software providers), partners from the R&D sector (e.g., universities, research institutes) and public institutions (e.g., municipalities, ministries). AEE INTEC is thus closely cooperating with renowned national and international universities and research institutes and offers continuously opportunities for MSc thesis and internships. Consequently, we are always interested to get in touch with interested, motivated, dedicated and highly qualified MSc and BSc students.

Master thesis available!

Topic: Analysis and evaluation of operating conditions in hybrid heat supply systems

Your tasks:

- Analysis of operating conditions for hybrid systems using sector coupling and distributed heat generation
- Modelling and simulation using state of the art tools (Matlab, Python, EnergyPro)
- Multi-criteria evaluation using technical, ecological and economic indicators
- Support in ongoing research projects

Your qualifications:

- Currently in enrolled in a master study, preferably in the field of Chemical Engineering, Mechanical Engineering, Power Systems Engineering, Electrical Engineering or a comparable study
- Knowledge in the field of energy supply systems, thermal networks, energy supply technologies
- Experience with scientific simulation tools (e.g. EnergyPro) is an advantage
- Very good command of English, written and spoken
- Self-driven and reliable personality with high motivation for in-depth research

We offer:

- Paid MSc thesis in the scope of a current research project and hands-on experience with industrial partners
- Supervision and support by experienced researchers
- International research environment in the field of Renewable Energy
- A positive atmosphere and common activities (sports, lunch breaks etc.)



Interested? Do you want to know more? Please get in touch with us!
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