



Florian Schittl

Scientific Staff

- March 15, 1995
- Hackerberg 188/3, 8292 Hackerberg, AUSTRIA
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- AT Citizenship

Languages

- German ●●●●●
- English ●●●●●

Research Interests

- ORC
- heat pumps
- CHP
- optimization
- combustion
- emission formation
- gas purification
- district H/C
- energy networks
- control strategies
- CFD
- turbulence
- thermoacoustics

Expertise

- thermodynamics
- fluid mechanics
- heat mass transfer
- numerical modelling
- co-simulation
- data analytics
- thermal measurements
- gas & aerosol measurements

Memberships



Scientists 4 Future

Short Biography

Florian is a Research Assistant in the research area “Thermal Energy Technology and Process Assessment” at the University of Applied Sciences Burgenland and is working on experimental investigations as well as the development of numerical simulation models for energy and environmental-related processes. His current research focuses on the further development of biomass combustion and flue gas purification plants as well as on the integration of environmentally friendly and resource-saving technologies into existing energy supply systems. He received a Bachelor’s and Master’s degree in energy and building technology from the University of Applied Sciences Burgenland, where he currently teaches several courses in the Department of Energy and Environment.

Education

- 2017 – 2020 **Master Studies** University of Applied Sciences Burgenland
Civil Engineering studies with focus on renewable energy systems and building technologies
Master Thesis
Numerical investigation of velocity and temperature distributions in a thermoacoustic system
- 2014 – 2017 **Bachelor Studies** University of Applied Sciences Burgenland
Civil Engineering studies with focus on energy and environmental technologies
Bachelor Thesis
Case studies for the investigation of an organic rankine cycle
- 2009 – 2014 **Technical College** HTBL Pinkafeld
Basic education in civil engineering with focus on HVAC and building technologies

Working Experience

- 2021 – now **Scientific Staff** University of Applied Sciences Burgenland
Research and development in the field of thermal and process engineering with focus on numerical calculation methods and experimental procedures
- 2017 – 2021 **Scientific Staff** Forschung Burgenland GmbH
Research and development in the field of thermal and process engineering with focus on numerical calculation methods and experimental procedures
- 2015 – 2017 **Engineer** Lorenz Consult ZT GmbH
Engineering services in terms of planning and design of HVAC systems in the hospital/pharmaceutical sector as well as development of integrated planning methods
- 04/2015 **Engineer** Energie Kompass GmbH
Conceptual design, planning, commissioning and maintenance of PV systems with small and medium performance range

Awards

- 2020 Pannonian Research Award for Junior Researchers

Extra-Curricular Activities

- sports soccer, volleyball, cycling, darts, hiking
- music brass music, classic rock, passionate music festival visitor
- science astronomy, astrophysics and the universe in general

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Motivations

"If you really think the environment is less important than the economy try holding your breath while you count your money."

- Guy McPherson

"Anyone who has never made a mistake has never tried anything new."

- Albert Einstein

"Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less."

- Marie Curie

Social Network



ORCID Link



Researchgate Link



Mendeley Link

IT Skills



MS Office, L^AT_EX



EES, IPSEpro, TRNSYS



Modelica, MATLAB



ANSYS Fluent



C/C++



Python



LabVIEW

Publications

Articles

- [1] Böhler, L., Fallmann, M., Görtler, G., Krail, J., **Schittl, F.**, Kozek, M., (2021). "Emission limited model predictive control of a small-scale biomass furnace". In: *Applied Energy* 285, p. 116414. ISSN: 0306-2619. DOI: 10.1016/j.apenergy.2020.116414
- [2] **Schittl, F.** (2021). "Numerical investigation of velocity and temperature distributions in thermoacoustic stacks". In: *Pannonia Research Award*. Ed. by A. Trink. Science.Research.Pannonia. Graz, Austria: Leykam, pp. 41–53. ISBN: 978-3-7011-0482-6
- [3] **Schittl, F.**, Unterpertinger, L., Heschl, C., Krail, J., (2021). "Numerical and experimental development of integrated electrostatic precipitator concepts for small-scaled biomass furnaces". In: *Biomass and Bioenergy* 154.25, p. 106247. ISSN: 0961-9534. DOI: 10.1016/j.biombioe.2021.106247

Conference Proceedings

- [1] **Schittl, F.**, Beckmann, G., Krail, J., (2019). "Effizienzsteigerung von Wärmenetzen durch sorptionsbasierte Wärmeübergabestationen". In: *Nachhaltige Technologien*. Ed. by H. Gremmel-Simon. Science.Research.Pannonia. Graz: Leykam, pp. 141–150. ISBN: 978-3-7011-0444-4
- [2] Beckmann, G., **Schittl, F.**, Krail, J., (2019). "Die Anwendung der thermodynamischen Transformation im Fernwärmesektor". In: *Nachhaltige Technologien*. Ed. by H. Gremmel-Simon. Science.Research.Pannonia. Graz: Leykam, pp. 127–140. ISBN: 978-3-7011-0444-4
- [3] **Schittl, F.**, Jauschnik, G., Pöttler, M., Krail, J., (2020). "Untersuchung eines Elektroabscheiderkonzepts zur Reduktion von Staubemissionen". In: *Technologie- und Klimawandel*. Ed. by H. Gremmel-Simon. Science.Research.Pannonia. Graz: Leykam, pp. 321–329. ISBN: 978-3-7011-0460-4
- [4] Krail, J., Beckmann, G., **Schittl, F.**, (2021). "Improved ORC process for power production by using low temperature heat". In: *Proceedings of the 6th International Seminar on ORC Power Systems*. Ed. by Technical University of Munich. Technical University of Munich, pp. 1–10. DOI: 10.14459/2021mp1632941

Posters

- [1] **Schittl, F.**, Krail, J., Pöttler, M., (22.-24.01.2020). *Experimental investigation of combined combustion-sensors for biomass furnaces*. Graz, Austria
- [2] **Schittl, F.**, Krail, J., Jud, D., Pöttler, M., (22.-24.01.2020). *Experimental investigation of an integrated electrostatic precipitator for the reduction of PM-emissions*. Graz, Austria
- [3] Piringer, G., Rixrath, D., Krottil, R., **Schittl, F.**, Beckmann, G., Krail, J., (3.-07.05.2020). *Simultaneous Heat and Cooling from District Heat Environmental Impacts of the Innovative Thermal Energy Conversion Process TeTra: 5.02P.11*. Dublin, Ireland