

## **Dipl.-Ing. Christopher Zemann, BSc.**

born 1986 in Graz (A)

### **Education and Experience**

2005	A-levels at HTBLuVA BULME Graz, electrical engineering and automation
2006-2011	M.Sc. in electrical engineering at Graz University of Technology Specialization: automation and control (graduated with distinction)
since 2012	Ph.D. in control engineering at Graz University of Technology Dissertation: Model-based control of biomass CHP plants
2003-2009	Relevant internships in the field of control and automation engineering (Joanneum Research, SSI Schäfer,...)
2010-2011	Study assistant at Graz University of Technology <i>Vertiefungslabor (LU)</i> , Institute of Automation and Control
since 2012	Scientific employee at the competence centre BEST – Bioenergy and Sustainable Technologies GmbH Area: Automation and Control

### **Research Areas:**

- Modelling and simulation of combustion processes, gasification processes and thermal processes
- Control and optimization of combustion processes, gasification processes and thermal processes
- State and parameter estimation in combustion processes, gasification processes and thermal processes

### **Selected Publications:**

ZEMANN, C.; DEUTSCH, M.; ZLABINGER, S.; HOFMEISTER, G.; GÖLLES, M; HORN, M.: Optimal operation of residential heating systems with logwood boiler, buffer storage and solar thermal collector. - in: Biomass & Bioenergy. (2020), accepted for publication

ZEMANN, C.; GÖLLES, M; HORN, M.: Simultaneous state and fuel property estimation in biomass boilers - theory and practice. - in: IFAC 2020 World Congress Proceedings (peer reviewed). (2020), accepted for publication

ANTOLINI, D.; HOLLENSTEIN, C.; MARTINI, S.; PATUZZI, F.; ZEMANN, C.; FELLBERGER, W.; BARATIERI, M.; GÖLLES, M.: Assessment of the Behaviour of a Commercial Gasification Plant During Load Modulation and Feedstock Moisture Variation. - in: Waste and Biomass Valorization. (2020), S. 599 – 612

ZEMANN, C.; HEINREICHBERGER, O.; GÖLLES, M.; BRUNNER, T.; DOURDOUMAS, N.; OBERBERGER, I.: Application of a Model Based Control Strategy at a Fixed Bed Biomass District Heating Plant. - in: 22nd European Biomass Conference and Exhibition Proceedings. (2014), S. 1698 – 1705