

Dipl.-Ing. Viktor Unterberger, BSc

born 1986 in Deutschlandsberg (A)

Education and Employment

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| 2005 | A-levels at BG/BRG Lichtenfels Gymnasium (Matura) |
| 2006-2013 | M.Sc. in telematics at Graz University of Technology with specialisation control system theory (Dipl.-Ing.) (completed with honours) |
| 2011 | Merit-based scholarship at Graz University of Technology |
| 2011/2012 | Semester abroad in South Korea
(POSTECH – Pohang University of Science & Technology) |
| 2013 | Scholarship of Graz University of Technology
Master Thesis: “Modelling and control of biomass furnaces with steam boiler” |
| Since 2014 | Ph.D. Candidate of Control Engineering at Graz University of Technology
Ph.D. title: “Model-based and model-predictive control of large-scale solar thermal systems” |
| Since 2014 | Scientific employee at the competence centre <i>BEST – Bioenergy and Sustainable Technologies GmbH</i>
Area: Automation and Control |
| 2014 | Participation at ESEIA International Summer School
(Braşov, Rumänien) |
| 2016 | Participation at European Forum Alpbach (Alpbach, Austria) |

Research Areas

- Modeling and simulation of hydraulic and thermal components
- Control of solar thermal systems
- Control of hydraulic systems
- Control of hybrid systems

Selected Publications

- UNTERBERGER V., MUSCHICK D., LOIDL A., POMS U., GÖLLES M., HORN M., 2020: Model-based control of hydraulic heat distribution systems — Theory and application. Control Engineering Practice, Vol. 101, 104464, ISSN 0967-0661, <https://doi.org/10.1016/j.conengprac.2020.104464>.
- UNTERBERGER V., NIGITZ T., LUZZU M., MUSCHICK D., GÖLLES M., 2018: Adaptive methods for energy forecasting of production and demand of solar assisted heating systems, Proceeding of Papers Vol. 1, p170-181, International conference on time series and forecasting, Granada, Spain, September 19-21, 2018.
- UNTERBERGER V., LICHTENEGGER K., INNERHOFER P., GERARDTS B., GÖLLES M., 2017: Evaluation of the potential for efficiency increase by the application of model-based control strategies in large-scale solar thermal plants. International Conference & Workshop REMOO 2017, Venedig, Italien
- UNTERBERGER V., LICHTENEGGER K., INNERHOFER P., GERARDTS B., GÖLLES M., 2016: Mathematische Modellierung mittlerer bis großer Solaranlagen als Basis für modellbasierte Regelungsstrategien, Gleisdorf Solar 2016 (Auszeichnung als innovativstes Poster)