

Mr. Michael Schweigler (**Austria**)
 Vienna University of Technology
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COST FP1402, STSM Candidate

Personal

Years of experience in relevant field: 3
 Expertise: Modelling of dowel-type connections
 Experimentally characterization of dowel-type connections
 Application of digital image correlation measurement technique
 Modelling of timber structures

Degree: Dipl.-Ing. (06.2013)

Organisation

Institute for Mechanics of Materials and Structures - Faculty of Civil Engineering (<http://www.imws.tuwien.ac.at>)
 Focus: theoretical and practical research / innovation, design of structures and education/training.
 Facilities: high performance computation facilities and mechanical testing facilities (including uniaxial and triaxial testing machines for up to 250 kN; full-field deformation measurement system)

No. of staff	PhD students	MSc/year
4	2	15

Research projects

2011-2015

"Characterization of Wood Products and Connections - From Mechanical Modeling to Engineering Applications (MechWood 2)"

FFG-Project in cooperation with the Association of the Austrian Wood Industries; duration: 3 years; people involved: 9

2007-2010

"Mechanical characterization of wood for knowledge-based timber industry"

FFG-Project in cooperation with the Association of the Austrian Wood Industries

Publications

for WG 3 "Connections":

[1] T.K. Bader, M. Schweigler, E. Serrano, B. Enquist, M. Dorn, G. Hochreiner. Integrative experimental characterization and engineering modeling of single dowel connections in LVL. *Constr Build Mater* 107, 235-246, 2016.

[2] Bader, T.K., Schweigler, M., Hochreiner, G., Enquist, B., Dorn, M., Serrano, E.: Experimental characterization of the global and local behavior of multi-dowel LVL-connections under complex loading. *Materials and Structures*, 1-18, 2015.

[3] Bader, T.K., Schweigler, M., Hochreiner, G., Serrano, E., Enquist, B., Dorn, M.: Dowel deformations in multi-dowel LVL-connections under moment loading. *Wood Material Science and Engineering* 10(3), 216-231, 2015.

[4] G. Hochreiner, T.K. Bader, K. de Borst, J. Eberhardsteiner. Stiff förmige Verbindungsmittel im EC 5 und baustatische Modellbildung mittels kommerzieller Statiksoftware. *Bauingenieur* 88, p. 275-289, 2013 (in German).

[5] Schweigler, M. (2013) "A Numerical Model for Slip Curves of Dowel Connections and Its Application to Timber Structures", Master Thesis, IMWS, TU Vienna

