



COST ACTION GREENERING – DATA COLLECTION

First name, Family Name: Elvis Ahmetović
Type (Academic or Industrial): Academic
Country: Bosnia and Herzegovina
Leadership position in the COST: Participant
Working Group in which you are involved: WG3
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Laboratory/Company: Department of Chemical Engineering/Faculty of Technology/University of Tuzla

Laboratory/Company info:

The University of Tuzla is a public higher education institution which was formally established in 1976. In 2001, the University of Tuzla became the first integrated University in Bosnia and Herzegovina. The University offers more than 50 study programs at bachelor, master and doctoral levels at 12 faculties and the Academy of Arts. One of these faculties is the Faculty of Technology, which has eight departments including Chemical Engineering.

Link to the home page of the Laboratory/Company:

University of Tuzla: <http://untz.ba/>

Faculty of Technology: <http://tf.untz.ba/>

Fields of expertise:

- Chemical Engineering
- Process Integration
- Rational use of Water and Energy in Industry
- Mathematical Programming and Process Optimization
- Analysis, Synthesis and Design of Chemical Processes

5 Main publications or patents:

- E. Ahmetović, N. Ibrić, Z. Kravanja, I. E. Grossmann, F. Maréchal, L. Čuček & M. Kermani (2018) Simultaneous optimisation and heat integration of evaporation systems including mechanical vapour recompression and background process, *Energy*, 158: 1160-1191.
- E. Ahmetović, N. Ibrić, Z. Kravanja & I. E. Grossmann (2015) Water and energy integration: A comprehensive literature review of non-isothermal water network synthesis, *Computers & Chemical Engineering*, 82: 144-171.
- E. Ahmetović, N. Ibrić & Z. Kravanja (2014) Optimal design for heat-integrated water-using and wastewater treatment networks, *Applied Energy*, 135: 791-808.
- E. Ahmetović & Z. Kravanja (2013) Simultaneous synthesis of process water and heat exchanger networks, *Energy*, 57: 236-250.
- E. Ahmetović & I. E. Grossmann (2011) Global superstructure optimization for the design of integrated process water networks, *The AIChE Journal*, 57, 2: 434-457.

**Collaborations:**

Carnegie Mellon University/Department of Chemical Engineering, University of Maribor/Faculty of Chemistry and Chemical Engineering, EPFL/Industrial Process and Energy Systems Engineering, TU Graz/Institute of Process and Particle Engineering, University of Bremen/Laboratory of Process Systems Engineering.

Facilities:

- Laboratory for Chemical Engineering has equipment for studying heat transfer in tubular and plate heat exchangers, jacketed vessel with coil and stirrer, and pasteuriser, pressure measurement and calibration unit, equipment for fluid dynamic, drying, and distillation. Equipment is mainly used for education purposes.
- Commercial software tools for modelling and optimisation