

## PERSONAL INFORMATION

## Nidret Ibrić



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Sex Male | Date of birth 25/12/1982 | Nationality Bosnia and Herzegovina

## POSITION

## Assistant Professor

## WORK EXPERIENCE

29/09/2016-Present

**College/university teaching professional-Assistant Professor**

University of Tuzla, Tuzla, Bosnia and Herzegovina

- Courses: Material and energy balances, Chemical equipment design, Analysis and simulation of chemical processes, Food Engineering Calculations.
- Research focus:
  - Mathematical programming and optimization
  - Optimization of evaporation systems
  - Heat integration
  - Water and heat exchanger networks
  - Simulation and modeling of chemical processes using MS Excel and Visual Basic for Applications (VBA)

Business or sector Education

10/2007–09/2016

**College/university teaching professional-Teaching Assistant**

University of Tuzla, Tuzla, Bosnia and Herzegovina

- Courses: Material and energy balances, Chemical process design, Process integration, Analysis and simulation of chemical processes.
- Research mainly focused on the synthesis of water networks and heat integration

Business or sector Education

06/2007–10/2007

**Process Engineer**

Sisecam Soda Lukavac, Prva ulica br.1, 75300 Lukavac (Bosnia and Herzegovina)

- Analysis of production systems; examination and improvement of the measurement and control systems; monitoring of the developments in the field of ecology, analytical technology and technological advancements in the production systems and improvement of the methods for the data acquisition and analysis; development of the daily reports

Business or sector Chemicals production

**EDUCATION AND TRAINING**

University Education  
11/2011–09/2014

**PhD in Process Engineering**

EQF level 8

University of Tuzla, Tuzla (Bosnia and Herzegovina)

- General:
  - English, writing communication
- Occupational:
  - Mathematical programming and optimization
  - Modeling using General Algebraic Modeling Systems (GAMS)
  - Water and energy optimization

09/2008–10/2010

**MSc in Chemical Engineering**

EQF level 7

University of Tuzla, Tuzla (Bosnia and Herzegovina)

- Development of the Optimization Model for the Integrated Water System Design in the Process Industries

09/2001–11/2006

**Graduated Engineer of Technology: Food Engineering**

EQF level 6

University of Tuzla, Tuzla (Bosnia and Herzegovina)

- General:
  - Mathematics, Chemistry, Physics, Programming, Lab Work
- Occupational:
  - Mass and energy balances, Unit operations, Separation Processes, Simulation of Chemical Processes, Food Science and Technologies

Mobility

10/2015–04/2016

**JoinEUSEE Penta postdoctoral scholarship**

EQF level 8

Faculty of Chemistry and Chemical Engineering, University of Maribor, Maribor (Slovenia)

- Mathematical programming and optimization
- Heat and energy integration
- Water integration
- Water networks synthesis

02/2013–05/2013

**CEEPUS students exchange programme within CEEPUS network 'PhD in Chemistry and Chemical Engineering'**

EQF level 7

University of Maribor, Maribor (Slovenia)

**PERSONAL SKILLS**

Mother tongue(s)

Bosnian

Other language(s)

|         | UNDERSTANDING |         | SPEAKING           |                   | WRITING |
|---------|---------------|---------|--------------------|-------------------|---------|
|         | Listening     | Reading | Spoken interaction | Spoken production |         |
| English | C1            | C1      | B2                 | B2                | B2      |

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user  
[Common European Framework of Reference for Languages](#)

Communication skills

- Good communication skills developed through team work on scientific research projects with international Universities, and work with students

## Digital skills

| SELF-ASSESSMENT        |                 |                  |                  |                  |
|------------------------|-----------------|------------------|------------------|------------------|
| Information processing | Communication   | Content creation | Safety           | Problem solving  |
| Independent user       | Proficient user | Proficient user  | Independent user | Independent user |

Levels: Basic user - Independent user - Proficient user

[Digital competences - Self-assessment grid](#)

- Good knowledge of commercial process simulation software ASPEN One, as well as open source simulator DWSIM
- Advanced knowledge of a modelling and optimisation tool GAMS (General Algebraic Modelling System) gained by developing mathematical optimization models during my PhD research.
- Good knowledge of the graphical design tool Corel Draw™ used for designing process flow sheets and block diagrams.
- Good command of office suite (word processor, spread sheet, presentation software) through the everyday work at the University
- Good knowledge of the Visual Basic for Application (VBA) language acquired by developing custom designed models for the chemical process simulation within Microsoft Excel environment.
- Basic to Intermediate knowledge of programming languages C++ and Python used for numerical computations.

Driving licence B1, B, BE

## ADDITIONAL INFORMATION

### Publications

- SCOPUS author details and a list of publications. (<http://www.scopus.com/authid/detail.url?authorId=36091208600>)
- Author information from Google Scholar entry. (<https://scholar.google.si/citations?user=uuvYaiMAAAAJ&hl=en&oi=ao>)

### Projects

Team member within the following projects:

- 2014-2017 ▪ Computer Aided Process Engineering applied to energy, water, and waste reduction during process design and operation. SCOPES: Joint Research Projects between: Industrial Process and Energy Systems Eng. IPESE-IGM-STI EPFL, University of Maribor, and University of Tuzla, 2014-2017.
- 2014-2015 ▪ Synthesis of the sustainable water, wastewater treatment and energy networks in the process industries. Bilateral project between Bosnia and Herzegovina (University of Tuzla) and Republic of Slovenia (University of Maribor), 2014-2015.
- 2014-2015 ▪ Optimisation of kinetic parameters for composting of organic fraction of municipal solid waste with different additions. Project supported by Federal ministry of education and science of B&H.
- 2010-2011 ▪ Development of optimisation model and its application on industrial water consumption reduction. Joint research project between science and technology cooperation between Bosnia and Herzegovina (University of Tuzla) and Slovenia (University of Maribor).
- 2010-2011 ▪ Automated synthesis and design of sustainable processes. Project supported by Federal ministry of education and science of B&H.
- 2010 ▪ Efficient water and energy use in the process industry. Faculty of Technology University of Tuzla. Project supported by Ministry of education, science, culture and sports of Tuzla Canton.
- 2009-2010 ▪ Possibilities of municipal solid waste composting process in reactor system by using different additives. Project supported by Federal ministry of education and science of B&H.
- 2009 ▪ Technological project of lime kiln at Sisecam Soda Lukavac factory. Faculty of Technology, University of Tuzla.
- 2008 ▪ Technological project of cooling towers at Sisecam Soda Lukavac factory. Faculty of Technology, University of Tuzla.

- Conferences** As presenting author, in English language, I participated in the following international conferences:
- E. Ahmetović, N. Ibrić, Z. Kravanja, Recent Developments in Synthesis of Multiple-Effect Evaporation Plants, [The SPIL Scientific Conference: Energy, Water, Emissions & Waste in Industry and Cities](#), December 6-7, 2017, Brno, Czech Republic.
  - N. Ibrić, E. Ahmetović, Z. Kravanja, F. Maréchal, M. Kermani, L. Čuček, Application of the nonApplication non-isothermal water network modelisothermal model to the Kraft pulping mill processto process, [Slovenian Chemical Days 2017](#), September 20-22, Portorož, Slovenia.
  - E. Ahmetović, M. Suljkanović, Z. Kravanja, F. Maréchal, N. Ibrić, M. Kermani, M. Bogataj, L. Čuček, Simultaneous Optimization of Multiple-Effect Evaporation Systems and Heat Exchanger Network. [20th Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction](#), August 21-24, 2017, Tianjin, China.
  - N. Ibrić, E. Ahmetović, Z. Kravanja, Maréchal, F., Kermani, M., Synthesis of non-isothermal interplant water networks, [The 2nd SEE SDEWES Conference](#), June 15-18, 2016, Piran, Slovenia.
  - N. Ibrić, E. Ahmetović, Z. Kravanja, Maréchal, F., Kermani, M., Synthesis of non-isothermal water networks including process hot and cold streams, [The 2nd SEE SDEWES Conference](#), June 15-18, 2016, Piran, Slovenia.
  - N. Ibrić, E. Ahmetović, Z. Kravanja, A compact superstructure for the synthesis of non-isothermal process water networks, [The 10th Conference on Sustainable Development of Energy, Water and Environment Systems – SDEWES Conference](#), September 27 - October 2, 2015, Dubrovnik, Croatia.
  - N. Ibrić, E. Ahmetović, Z. Kravanja, Synthesis of Water, Wastewater Treatment, and Heat-Exchanger Networks, [European Symposium on Computer Aided Process Engineering \(ESCAPE\)](#), June 15-18. 2014, Budapest, Hungary.
  - N. Ibrić, E. Ahmetović, Z. Kravanja, Synthesis of heat-integrated water networks including wastewater regeneration, [Slovenian Chemical Days \(SKD\)](#), September 10-12. 2013, Maribor, Slovenia.
  - N. Ibrić, E. Ahmetović, Z. Kravanja, A sequential approach for the synthesis of heat-integrated water networks, in: [Slovenian Chemical Days \(SKD\)](#), September 12-14. 2012, Portorož, Slovenia.
- Awards**
- 3 months Mobility Grant at Faculty of Chemistry and Chemical Technology, University of Maribor, within the framework of the CEEPUS SI-0708 Mobility Grant Programme.
  - 6 months postdoctoral scholarship at Faculty of Chemistry and Chemical Technology, University of Maribor within the JoinEUsee > PENTA Programme.