PERSONAL INFORMATION

Norbert-Botond MIHÁLY

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POSITION APPLIED FOR

Assistant Lecturer

EDUCATION AND TRAINING

2020-present — **PhD student**
Babeș-Bolyai University, Faculty of Chemistry and Chemical Engineering Cluj-Napoca, RO 400018

2018-2020 — **MSc**
Babeș-Bolyai University, Faculty of Chemistry and Chemical Engineering Cluj-Napoca, RO 400018
- ICAP

2014-2018 — **BSc**
Babeș-Bolyai University, Faculty of Chemistry and Chemical Engineering Cluj-Napoca, RO 400018
- CISOPC

2010-2014 — **Bachelor's degree**
Bolyai Farkas High School, Târgu Mureș, RO 540064
- Natural Sciences-intensive English

PERSONAL SKILLS

Mother tongue(s): Hungarian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
	Cambridge Certificate of Proficiency in English				
Romanian	C2	C2	C2	C2	C2
	Native speaker				

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 gained through working in groups for different assignments during the university years

Digital skills

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

Levels: Basic user - Independent user - Proficient user
Digital competences - Self-assessment grid

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- good command of MATLAB/SIMULINK and toolboxes gained through research work
- independent user of ChemCAD and Aspen PLUS software, experience gained through work at the university

Driving licence B

Presentations
- Monthly presentation at the “Erdélyi Múzeum Egyesület” 30.05.2019.

Conferences
Awards
- Oral presentation at the “XIVth International Conference Students for Students”, 26-30.04.2017.
- Best undergraduate presentation award at the “XIVth International Conference Students for Students”, 26-30.04.2017.
- Poster presentation at the “XXIII. Nemzetközi Vegyészkonferencia”, 25-28.10.2017.
- 2nd place award at the “XXIII. Nemzetközi Vegyészkonferencia”, 25-28.10.2017.
- Special award at the “XXIII. Nemzetközi Vegyészkonferencia”, 25-28.10.2017.
- Oral presentation at the “Erdélyi Természettudományi Konferencia 2017”, 25.11.2017
- Oral presentation at the “XVth International Conference Students for Students”, 18-22.04.2018.
- Oral presentation at the “XX. Műszaki Tudományos Diákköri Konferencia”, 26-28.04.2018.
- 1st place award at “XX. Műszaki Tudományos Diákköri Konferencia”, 26-28.04.2018.
- Poster presentation at the “XXIV. Nemzetközi Vegyészkonferencia”, 24-27.10.2018.
- 1st place award at the “XXIV. Nemzetközi Vegyészkonferencia”, 24-27.10.2018.
- Oral presentation “Erdélyi Természettudományi Konferencia 2018”, 24.11.2018.
- Oral presentation “XXXIV. Országos Tudományos Diákköri Konferencia”, 21-23.03.2019.
- Oral presentation “XVIth International Conference Students for Students”, 3-7.04.2019.
- Best masters presentation award at the “XVIth International Conference Students for Students”, 3-7.04.2019
- Attendance at the “Next Generation” conference of STAR institute, 12-14.07.2019.
- Attendance at the 16th SDEWES Conference in Dubrovnik, Croatia, 10-15.10.2021.
- Attendance at IEEE International Conference on Automation, Quality and Testing, Robotics, Cluj-Napoca, Romania, 19-21.05.2022.
- Attendance at the 32nd European Symposium on Computer-Aided Process Engineering (ESCAPE-32), Toulouse, France, 12-15.06.2022.
- Attendance at the 17th SDEWES Conference in Paphos, Cyprus, 6-10.11.2022.
- Attendance at the the 33rd European Symposium on Computer-Aided Process Engineering (ESCAPE-33), Athens, Greece, 18-21.06.2023.
- Planned attendance at the 34th European Symposium on Computer-Aided Process Engineering (ESCAPE-34), Florence, Italy, 02-06.06.2024.

ADDITIONAL INFORMATION

Volunteering

- Volunteered at the faculties open days “Zilele Porților Deschise la Facultatea de Chimie și Inginerie Chimică”, 20.10.2018.
- Volunteered at the faculties open days “Zilele Porților Deschise la Facultatea de Chimie și Inginerie Chimică”, 19.10.2019
- Volunteered at the faculties open days “Zilele Porților Deschise la Facultatea de Chimie și Inginerie Chimică”, 22.10.2022
- Volunteered at the faculties open days “Zilele Porților Deschise la Facultatea de Chimie și Inginerie Chimică”, 21.10.2023

Scholarships

- Erasmus+ Mobility scholarship at University of Pannonia, Hungary, 10.02.2020-10.04.2020.

Projects

- Advanced (multi)-enzymatic synthesis and purification processes for biobased furan derivatives – ASPIRE, National Authority for Scientific Research and Innovation (ANCSI), Project code: CF 25/14.11.2022;

Publications

- Mihály, N. B., Luca, A. V., Simon-Várhelyi, M., & Cristea, V. M. (2023). Improvement of air flowrate distribution in the nitrification reactor of the waste water treatment plant by effluent quality, energy and greenhouse gas emissions optimization via artificial neural networks models. Journal of Water Process Engineering, 54. https://doi.org/10.1016/j.jwpe.2023.103935
- Mihály, N. B., Simon-Várhelyi, M., & Cristea, V. M. (2022). Data-driven modelling based on artificial neural networks for predicting energy and effluent quality indices and wastewater treatment plant optimization. Optimization and Engineering, 23, 2235–2259. https://doi.org/10.1007/s11081-022-09724-5
- Luca, A. V., Simon-Várhelyi, M., Mihály, N. B., & Cristea, V. M. (2021). Data driven detection of different dissolved oxygen sensor faults for improving operation of the WWTP control system. Processes, 9(9). https://doi.org/10.3390/pr9091633
- Luca, A. V., Simon-Várhelyi, M., Mihály, N. B., & Cristea, V. M. (2023). Fault Type Diagnosis of the WWTP Dissolved Oxygen Sensor Based on Fisher Discriminant Analysis and Assessment of Associated Environmental and Economic Impact. Applied Sciences (Switzerland), 13(4). https://doi.org/10.3390/app13042554
- Mihály, N.-B., Luca, A.-V., & Cristea, V. M. (2023). Artificial neural networks-based identification of the WWTP DO sensor types of faults (pp. 1879–1884). https://doi.org/10.1016/B978-0-443-15274-0.50298-5
- Mihály, N.-B., & Cristea, V. M. (2022). Optimization of the Wastewater Treatment Plant Aeration Using Artificial Neural Networks Models (pp. 1375–1380). https://doi.org/10.1016/B978-0-323-95879-0.50230-7
- Mihaly, N.-B., Simon-Varhelyi, M., Luca, A.-V., & Cristea, V.-M. (2022). Optimization of the Wastewater Treatment Plant Recycle Flowrates Using Artificial Neural Networks. 2022 IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR), 1–6. https://doi.org/10.1109/AQTR55203.2022.9801979

Cluj-Napoca, Romania
4th of January 2024

Norbert-Botond MIHÁLY