**NAME AND SURNAME: Almir Badnjević**

**Work experience:**

* 2019. Assistant Professor in the field of Pharmacy Informatics

Department for Pharmacy Informatics, Faculty of Pharmacy Sarajevo, University of Sarajevo

* 2018. Associate Professor in the field of Bioengineering

Genetics and Bioengineering Department, Faculty for Engineering and Natural Sciences, International Burch University Sarajevo

* 2018. Associate Professor in the field of Electrical and Electronics Engineering

Electrical and Electronics Engineering Department, Faculty for Engineering and Natural Sciences, International Burch University Sarajevo

* 2016. Assistant Professor in the field of electronics and automation control

Technical Faculty Bihać, University of Bihać

* 2015. Assistant Professor in the field of Bioengineering

Genetics and Bioengineering Department, Faculty for Engineering and Natural Sciences, International Burch University Sarajevo

* 2015. Assistant Professor in the field of Electrical and Electronics Engineering

Electrical and Electronics Engineering Department, Faculty for Engineering and Natural Sciences, International Burch University Sarajevo

**Education:**

* *2015. PhD*

*PhD Thesis : Integrated software system for asthma and chronic obstructive pulmonary disease classification*

University of Zagreb, Faculty of Electrical Engineering and Computing Zagreb, Croatia

* *2010. Master*

*Master thesis: Remote reading and electrical meter control using MORSE network*

*University of Sarajevo, Faculty of Electrical Engineering Sarajevo*

* *2008. Bachelor*

*University of Sarajevo, Faculty of Electrical Engineering Sarajevo*

**Study abroad:**

* 2018. MDH University Vasteras, Sweden
* 2018. University of Pitsburgh, USA
* 2014. University of Zagreb, Faculty of Electrical Engineering and Computing Zagreb, Croatia
* 2010. Carefusion Wurzburg, Germany
* 2010. Radiometer Copenhagen, Denmark

**Academic/teaching work:**

| **Undergraduate teaching** | |
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| 2016 - 2018 | **Visiting Professor**, Technical Faculty Bihać, University of Bihać, Bosnia and Herzegovina   * Electrical Engineering 1 * Electrical Engineering 2 * Intelligent Systems * Artificial intelligence and expert systems |
| 2015 - Present | **Professor at Genetics and Bioengineering**, Faculty of Engineering and Natural Sciences, International Burch University Sarajevo, Bosnia and Herzegovina. From December 2018 elected as Associate Professor.   * Biomedical Instrumentation * Biomedical Signals and Systems * Biosensors * Intelligent Systems |
| 2010 – 2012 | **Industry Expert**, Department of Automation Control and Electronics, Faculty of Electrical Engineering Sarajevo, University of Sarajevo, Bosnia and Herzegovina   * Sensors and Convertors |
| **Graduate Teaching** | |
| 2015–Present | **Professor**, Faculty of Engineering and Natural Sciences, International Burch University Sarajevo, Bosnia and Herzegovina. From December 2018 elected as Associate Professor.   * Laboratory Quality Management System * Nanotechnology and Nanosensors * Seminar II |
| 2010–Present | **Assistant Professor (Industry Expert)**, Department of Automation Control and Electronics, Faculty of Electrical Engineering Sarajevo, University of Sarajevo, Bosnia and Herzegovina   * Biomedical Signals and Systems |

| **Undergraduate thesis supervision** | |
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| 2015 – 2016 | Berina Alić, International Burch University Sarajevo, “Classification of metabolic syndrome patients using implemented expert system” |
| 2015 – 2016 | Layla Abden-Ilah, International Burch University Sarajevo, “Breast cancer classification using artificial neural networks” |
| 2015 – 2016 | Dijana Sejdinović, International Burch University Sarajevo, “Classification of prediabetes and diabetes type 2 using artificial neural network” |
| 2015 – 2016 | Almir Aljović, International Burch University Sarajevo, “Artificial neural networks in the discrimination of Alzheimer's disease using biomarkers and cognition data” |
| 2016 – 2017 | Alma Jakupović, International Burch University Sarajevo, “Developing of expert systems for diagnostic of metabolic syndrome patients” |
| 2016 – 2017  2017 – 2018 | Ahmed Hasanagić, International Burch University Sarajevo, “Recording, acquistion and signal processing of ECG signals using Pasco sensor and Matlab”  Emina Kurta, International Burch University Sarajevo, “Electromagnetic Compatibility Effect on Medical Devices” |
| 2017 – 2018 Lamija Hafizović, International Burch University Sarajevo, “Research tools for complex  physiologic signals analysis”  2017 – 2018 Lejla Hadzic, International Burch University Sarajevo, “Recording, acquisition and signal  processing of blood pressure signals using Pasco sensor and Matlab”  2017 – 2018 Maida Avdic, International Burch University, “A comparative study of Hemoglobin  measurement technology” | |
| **Graduate thesis supervision** | |
| 2017 – 2018 | Berina Alić, International Burch University Sarajevo, „Application of ISO/IEC 17025 accreditation of autosomal and Y-chromosome STR typing” |

| 2017 – 2018 | Layla Abdel Ilah, International Burch University Sarajevo, „Quantitative structure activity relationship and artificial neural networks in design of benzimidazoles as antiproliferative agents” | |
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| **Postgraduate thesis supervision** | | |
| 2018 – 2019 | | Lejla Gurbeta, International Burch University Sarajevo, „Determination and experimental validation of the uncertainty and documentation of traceability chain in measurements of temperature, humidity and sound in infant incubator” | |

**Projects:**

1. Measurement in Medicine: Introduction of Medical Devices with Measuring Function into Legal Metrology Framework of Bosnia and Herzegovina. Contributors (with H. Memić, D. Franjić, A. Šabeta, O. Šibonjić). Institute of Metrology of Bosnia and Herzegovina. (2013-2014.
2. Mutual future based on mutual interests. Project leader (Bosnia and Herzegovina Medical and Biological Engineering Society). United Nations in Bosnia and Herzegovina. Program Dialogue for the Future: Promoting Coexistence and Diversity in B&H. (2014-2017).
3. QSAR and neural network in design pharmacological active xanthenes. Contributor (with E. Veljovic, D. Zavrsnik, S. Spirotovic – Halilovic, S. Muratovic, A. Osmanovic, S. Filipic, K. Novakovic, T. Bego, M. Malenica). Federal Ministry of Education and Science Bosnia and Herzegovina. Financing /co-financing of scientific research and research- development projects in FBiH in 2016 (2016 – Present).
4. Bosnia and Herzegovina MC Member at COST Action BM1309, Biomedicine And Molecular Biosciences  
   European network for innovative uses of EMFs in biomedical applications (EMF-MED) (2014 – 2018).
5. Bosnia and Herzegovina MC Member at COST Action CA15120, COST Association Open Multiscale Systems Medicine (OpenMultiMed) (2016-2020).
6. Bosnia and Herzegovina MC Member at COST Action CA15110, COST Association Harmonising standardisation strategies to increase efficiency and competitiveness of European life-science research (CHARME) (2016-2020).
7. Co-financing the organization of scientific conferences in the Sarajevo Canton in 2016. „International Conference on Medical and Biological Engineering – CMBEBIH 2017“. Ministry of Education, Science and Youth of Sarajevo Canton.
8. Support to technical culture and innovation in Bosnia and Herzegovina for 2017. “Development of telemetry system for diagnostic patients with asthma and COPD in rural areas of Bosnia and Herzegovina”. Ministry of Civil Affair of Bosnia and Herzegovina grant. (January to April 2018).
9. Programs for preparing projects and potential applicants for H2020 funding for 2017., *“SRT-r03MedUlt: Development of expanded metrological capability for medical ultrasound".* Ministry of Civil Affair of Bosnia and Herzegovina
10. Co-financing science projects. „CMBEBIH 2017“. Ministry of Education and Science of Federation of Bosnia and Herzegovina.
11. Support to technical culture and innovation in Bosnia and Herzegovina in 2018., *“Development of expert system based on neural networks for performances predication and preventive maintenance planning of medical devices*". Ministry of Civil Affair of Bosnia and Herzegovina
12. Co-financing the organization of scientific conferences in the Sarajevo Canton in 2018. “*Regional school of Biomedical Engineering*”. Ministry of Education, Science and Youth of Sarajevo Canton.
13. Programs for preparing projects and potential applicants for H2020 funding for 2018., “H2020 TraceHTA - Evidence-based multivariable Health Technology Assessment (HTA) method for improving diagnosis and treatment of patients“. Ministry of Civil Affair of Bosnia and Herzegovina
14. TAIEX Regional Workshop on Biomedical Engineering (Biomedical Signals, Medical Physics, Nanotechnology, Biosensors, Genetics, Renewable Energy Sources). European Commission. (February – December 2018)

**Selected publications (up to 10):**

1. Badnjevic A, Cifrek M, Koruga D, Osmankovic D. „Neuro-fuzzy classification of asthma and chronic obstructive pulmonary disease,“ BMC Medical Informatics and Decision Making Journal (2015) 15 (Suppl 3):S1; doi: [10.1186/1472-6947-15-S3-S1](https://doi.org/10.1186/1472-6947-15-S3-S1)
2. Gurbeta L, Badnjević A., „Inspection process of medical devices in healthcare institutions: software solution,“ Health Technol. (2017) Volume 7, [Issue 1](https://link.springer.com/journal/12553/7/1/page/1), pp 109–117, doi:10.1007/s12553-016-0154-2
3. Badnjevic A, Gurbeta L, Jimenez E.R., Iadanza E. „Testing of mechanical ventilators and infant incubators in healthcare institutions“ Technology and Health Care (2017) vol. 25, no. 2, pp. 237-250
4. Dogan S, Nalcaci N, Dogan S, Badnjevic A, Kurtovic A, et al. (2017) Changes in Blood Pressure and Heart Rate Measurement Undergraduate Students During Exam Period. J Biom Biostat (2017) 8:347. doi: 10.4172/2155-6180.1000347
5. Gurbeta, L., Dzemic, Z., Bego, T., Sejdic, E., Badnjevic, A. „Testing of Anesthesia Machines and Defibrillators in Healthcare Institutions“, J Med Syst (2017) 41: 133. <https://doi.org/10.1007/s10916-017-0783-7>
6. Hodzic J, Gurbeta L, Omanovic-Miklicanin E, Badnjevic A. „Overview of Next-generation Sequencing Platforms Used in Published Draft Plant Genomes in Light of Genotypization of Immortelle Plant (Helichrysium Arenarium)“, MED ARCH. (2017) 71(4): 288-292, doi: 10.5455/medarh.2017.71.288-292
7. Catic A., Gurbeta L., Kurtovic-Kozaric A., Mehmedbasic S., Badnjevic A. “Application of Neural Networks for classification of Patau, Edwards, Down, Turner and Klinefelter Syndrome based on first trimester maternal serum screening data, ultrasonographic findings and patient demographics”, BMC Medical Genomics (2018) 11:19, DOI: 10.1186/s12920-018-0333-2
8. Lejla Gurbeta, Almir Badnjevic, Mirjana Maksimovic, Enisa Omanovic-Miklicanin, Ervin Sejdic; A telehealth system for automated diagnosis of asthma and chronical obstructive pulmonary disease,  Journal of the American Medical Informatics Association Volume 25, Issue 9, 1 September 2018, Pages 1213–1217, <https://doi.org/10.1093/jamia/ocy055>
9. A. Badnjevic, L. Gurbeta, E. Custovic. An Expert Diagnostic System to Automatically Identify Asthma and Chronic Obstructive Pulmonary Disease in Clinical Settings. Nature Scientific Reports 8, 11645 (2018), <https://doi.org/10.1038/s41598-018-30116-2>
10. Almir Badnjević, Lejla Gurbeta Pokvić, Mehrija Hasičić, Lejla Bandić, Zerina Mašetić, Živorad Kovačević, Jasmin Kevrić, Leandro Pecchia; “Evidence-based clinical engineering: Machine learning algorithms for prediction of defibrillator performance”, Biomedical Signal Processing and Control, Volume 54, 2019, 101629, ISSN 1746-8094, https://doi.org/10.1016/j.bspc.2019.101629.