Curriculum Vitae

ALMIR BADNJEVIĆ, Ph.D.

Work Address	*Home Address*
Verlab Ltd Sarajevo	*Paromlinska 53A, 71000 Sarajevo,*
Medical Devices Verification Laboratory	*Bosnia and Herzegovina*
Ismeta Mujezinovića 30,	*Cell: +387 61 213 599*
71000 Sarajevo, Bosnia and Herzegovina	
Tel: +387 33 569 540	
E-mail: almir@verlab.ba	

EDUCATION

2012 – 2015	**University of Zagreb, Faculty of Electrical Engineering and Computing Zagreb, Croatia**
	Doctor of Philosophy in Electrical Engineering,
	THESIS TITLE: Integrated software system for asthma and chronic obstructive pulmonary disease classification (defended in Sept. 2015)
2008 – 2010	**University of Sarajevo, Faculty of Electrical Engineering Sarajevo, Bosnia and Herzegovina**
	Master of Engineering Science in Electrical Engineering,
	RESEARCH AREA: Automation Control and Electronics
2005 – 2008	**University of Sarajevo, Faculty of Electrical Engineering Sarajevo, Bosnia and Herzegovina**
	Bachelor of Engineering Science in Electrical Engineering

WORK EXPERIENCE

March 2014 – Present	**Director of Verlab Ltd Sarajevo**, Medical Devices Verification Laboratory of National Metrology Institute (NMI) of Bosnia and Herzegovina

- Establishing for the first time Medical Devices Verification Laboratory in the Bosnia and Herzegovina for the independent verification according to legal metrology rules of ECG, defibrillators, patient monitors, infusion pumps, perfusors, anesthesia machines, respirators, baby incubators, therapeutic ultrasound, dialysis machines and blood pressure devices.
- Company managing and supervising.
- Lobbying and signing contracts with Business Partners (all private and public healthcare institutions), Banks and other institutions.
- Reporting Business reports according to Company Management rules.
- Accreditation of laboratory by ISO 17020.
- Certification of company by ISO 9001.
- Establishing the first digital database eVerlab which contains medical devices verification results.

Oct 2015 - Present	**Head of Genetics and Bioengineering Department**, Faculty of Engineering and Natural Sciences, International Burch University Sarajevo, Bosnia and Herzegovina

- Managing Department,

- Teaching Courses at Undergraduate, Graduate and PhD programs:
  a. GBE 323 – Biomedical Instrumentation
  b. GBE 325 – Biomedical Signals and Systems
  c. GBE 330 – Biosensors
  d. GBE 321 – Intelligent Systems
  e. GBE 525 – Laboratory Quality Management System
  f. GBE 320 – Nanotechnology and Nanosensors
  g. GBE 596 – Seminar II

Mar 2014 – Present

President, Bosnia and Herzegovina Medical and Biological Engineering Society (IFMBE and EAMBES country representative)

- Founder of Society and creator of idea for starting activities in the Biomedical Engineering field in the country
- Representing the Society officially and legally.
- Organizing IEEE/IFMBE International Conference on Medical and Biological Engineering in Bosnia and Herzegovina (CMBEBIH).
- Organizing Summer Schools for Biomedical Engineering in the region.

Jun 2013 – Mar 2014

Expert Advisor for Biomedical Engineering and Measurements in Medicine, Micom BH Ltd Sarajevo, Bosnia and Herzegovina (Fluke representative company for Balkan region).

- Research for Medical Devices with Measuring Function in all Healthcare Institutions in Bosnia and Herzegovina.
- Working on projects with WHO.
- Development of Biomedical Engineering in the Bosnia and Herzegovina.
- Part of the project named: "Measurement in Medicine" for introducing Medical Devices in Legal Metrology System of Bosnia and Herzegovina.
- The application of the Directives and Standards 93/42 EEC, IEC 60601 and IEC 62353 in Bosnia and Herzegovina.
- Trainer for Fluke Biomedical Products in the Europe.

Jun 2010 – Jun 2013

Manager of Technical Department and Quality Manager of the Laboratory, New Technology Ltd Sarajevo, Bosnia and Herzegovina

- Conducted a research project dealing with development and application of novel signal processing algorithms for various applications including wireless communications, heart sound analysis, fault classification in servomotors, and knock-pressure signal analysis
- Planning, evaluation and monitoring (technical, financial and organizational) for Technical Department in the Company (Offices in Sarajevo, Banja Luka, Tuzla and Bihac).
- Preventive maintenance, service, independent testing and calibration of devices for blood gas analysis (manufacturer Radiometer), respiratory system (Drager, GE, CareFusion, Maquet, Siemens, Acoma, Hamilton, SLE), anesthesia machine's (Drager, GE, TMS), baby incubators (Drager, GE, Ertunc Ozcan), spirometers (Jaeger, Medicon, Schiller), ergospirometers(CareFusion, GE),

> infusion and perfusion pumps (Alaris, BBraun) on all Bosnia and Herzegovina area.
> - Contract negotiations with new costumers.

TEACHING EXPERIENCE

Undergraduate teaching

2016 - 2018   **Assistant 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   **Head of Genetics and Bioengineering**, Faculty of Engineering and Natural Sciences, International Burch University Sarajevo, Bosnia and Herzegovina
- 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   **Assistant Professor**, Faculty of Engineering and Natural Sciences, International Burch University Sarajevo, Bosnia and Herzegovina
- Laboratory Quality Management System
- Nanotechnology and Nanosensors
- Seminar II

2015–Present   **Guest Lecturer**, Department of Automation Control and Electronics, Faculty of Electrical Engineering Sarajevo, University of Sarajevo, Bosnia and Herzegovina
- Biomedical Signals and Systems

2010 – 2015   **Industry Expert**, Department of Automation Control and Electronics, Faculty of Electrical Engineering Sarajevo, University of Sarajevo, Bosnia and Herzegovina
- Biomedical Signals and Systems

SCHOLARLY CONTRIBUTIONS

Books:
1. Omanović – Mikličanin E., Badnjević A. (2017), "Uvod u nanotehnologiju", Univerzitet u Sarajevu, ISBN 978-9958-597-56-5
2. Badnjevic A., (2017), „CMBEBIH 2017: Proceedings of the International Conference on Medical and Biological Engineering 2017", Springer, ISBN: 978-981-10-4166-2

3. Badnjević A., Cifrek M., Magjarević R., Džemić Z. (eds) Inspection of Medical Devices. Series in Biomedical Engineering. Springer, Singapore

Book Chapters

1. Badnjevic A., Cifrek M., Gurbeta L., Feric E., „Classification of Chronic Obstructive Pulmonary Diseases Based on Neuro-Fuzzy Software" in the Book: „Chronic Obstructive Pulmonary Disease (COPD): Clinical Symptoms, Emerging Treatment Strategies and Impact on Quality of Life", 2016, Nova Science Publisher, ISBN: 978-1-63484-500-7, 2016.
2. Granulo E, Becar L, Gurbeta L, Badnjevic A., „Telemetry System for Diagnosis of Asthma and Chronical Obstructive Pulmonary Disease (COPD)", Internet of Things Technologies for HealthCare. Mobyen Uddid Ahmed, Shahina Begum, Wasim Raad. Springer International Publishing, 2016, pp. 113-118, DOI:10.1007/978-3-319-51234-1_18
3. Badnjević A., Cifrek M., Magjarević R., Džemić Z. (2018) Introduction. In: Badnjević A., Cifrek M., Magjarević R., Džemić Z. (eds) Inspection of Medical Devices. Series in Biomedical Engineering. Springer, Singapore
4. Memić H., Badnjević A., Džemić Z. (2018) Regulations and Directives—Past, Present, Future. In: Badnjević A., Cifrek M., Magjarević R., Džemić Z. (eds) Inspection of Medical Devices. Series in Biomedical Engineering. Springer, Singapore
5. Bošnjaković A., Badnjević A., Džemić Z. (2018) Legal Metrology System—Past, Present, Future. In: Badnjević A., Cifrek M., Magjarević R., Džemić Z. (eds) Inspection of Medical Devices. Series in Biomedical Engineering. Springer, Singapore
6. Magjarević R., Badnjević A. (2018) Inspection and Testing of Electrocardiographs (ECG) Devices. In: Badnjević A., Cifrek M., Magjarević R., Džemić Z. (eds) Inspection of Medical Devices. Series in Biomedical Engineering. Springer, Singapore
7. Vuković D., Badnjević A., Omanović – Mikličanin E. (2018) Cost Effectiveness and Increasing of Accuracy of Medical Devices In Legal Metrology System: Case Study Bosnia and Herzegovina. In: Badnjević A., Cifrek M., Magjarević R., Džemić Z. (eds) Inspection of Medical Devices. Series in Biomedical Engineering. Springer, Singapore

Refereed Journal Publications

1. Koruga D., Plavec G., Kopitovic I., Cekerevac I., Badnjevic A. „Clinical evaluation of lung function with impulse ocillometry – clinical acting and interpretation results", Respiron Journal (2014) Vol 51, No 1-2
2. Badnjevic A, Gurbeta L, Boskovic D, Dzemic Z. „Measurement in medicine – Past, present, future", Folia Medica Facultatis Medicinae Universitatis Saraeviensis Journal (2015) 50(1): 43-46
3. Badnjevic – Cengic A, Kovacevic P, Dragic S, Momcicevic D, Badnjevic A, Gurbeta L, Hasanefendic B. „Serum nitric oxide levels in patients with acute myocardial infarction with ST elevation (STEMI)", Respiron Journal (2015) Vol 5, No 1-2
4. 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
5. Gurbeta L, Badnjević A., „Inspection process of medical devices in healthcare institutions: software solution," Health Technol. (2017) Volume 7, Issue 1, pp 109–117, doi:10.1007/s12553-016-0154-2

6. 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
7. 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
8. 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
9. 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
10. 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

Refereed Conference Proceedings
1. Badnjevic A., Zunic E., Uzunovic T., Osmic N. "Design and Implementation of three- dimensional simulator for control of laboratory model helicopter", 33rd International Convention on Information and Communication Technology, Electronics and Microelectronics (MIPRO), pp:1362-1367, 24.-28. May 2010. Opatija, Croatia.
2. Uzunovic T., Zunic E., Badnjevic A., Miokovic I., Konjicija S. "Implementation of digital PID controller", 33rd International Convention on Information and Communication Technology, Electronics and Microelectronics (MIPRO), pp:1357-1361, 24.-28. May 2010. Opatija, Croatia.
3. Velagic J., Osmic N., Uzunovic T., Zunic E., Badnjevic A.,"Design of 3D simulator for 2DOF helicopter model control", IEEE 52nd International Symposium ELMAR 2010, pp: 305 – 308, 15. – 17. September 2010 Zadar, Croatia
4. Uzunovic T, Velagic J., Osmic N., Badnjevic A., Zunic E., "Neural networks for helicopter azimuth and elevation angles control obtained by cloning processes", IEEE International Conference on Systems, Man and Cybernetics SMC 2010, pp:1076-1082, 10. – 13. October 2010 Istanbul, Turkey
5. Badnjevic A, Beganovic E, Gvozdenovic V, Sehic G. „Automated Closed Loop Controller of Insipred Oxygen System for Improved Mechanical Ventilation in Newborns", IEEE 34th International convention on information and communication technology, electronics and microelectronics (MIPRO), pp: 145-149, 23.-27. May 2011. Opatija, Croatia
6. Badnjevic A, Beganovic E, Music O. „Facts about solution based and cartridge based devices for blood gas analyses", IEEE 18th International Conference on System, Signals and Image Processing, pp:1-5, 16-18 June 2011, Sarajevo, Bosnia and Herzegovina.
7. Badnjevic A, Beganovic E, Sehic G, Badnjevic A, „Disadvantages of methods for power indication during treadmill exercise for ergospirometry test", IEEE 35th International convention on information and communication technology, electronics and microelectronics (MIPRO), pp: 196-200, 21.-25. May 2012. Opatija, Croatia
8. Badnjevic A, Koruga D, Cifrek M, Smith HJ, Bego T. „Interpretation of pulmonary function test results in relation to asthma classification using integrated software suite", IEEE 36. International convention on

information and communication technology, electronics and microelectronics (MIPRO), pp: 140 -144, 21.-25. May 2013. Opatija, Croatia.

9. Badnjevic A, Cifrek M, Koruga D. „Integrated software suite for diagnosis of respiratory diseases", IEEE International conference on computer as tool (EUROCON), pp: 564-568, 01-04. July 2013., Zagreb, Croatia

10. Badnjevic A., Cifrek M., Koruga D., "Classification of Chronic Obstructive Pulmonary Disease (COPD) using integrated software suite", IFMBE XIII Mediterranean Conference on Medical and Biological Engineering and Computing (MEDICON), 25-28. September 2013., Sevilla, Spain.

11. Badnjevic A., Cifrek M., „Classification of asthma utilizing integrated software suite", 6th European Conference of the International Federation for Medical and Biological Engineering (MBEC), 07-11. September 2014., Dubrovnik, Croatia

12. Avdakovic S., Omerhodzic I., Badnjevic A., Boskovic D., „Diagnosis of Epilepsy from EEG Signals using Global Wavelet Power Spectrum", 6th European Conference of the International Federation for Medical and Biological Engineering (MBEC), 07-11. September 2014., Dubrovnik, Croatia

13. Badnjevic A, Gurbeta L, Boskovic D, Dzemic Z. „Medical devices in legal metrology", IEEE 4th Mediterranean Conference on Embedded Computing (MECO), pp: 365-367, 14 – 18 June 2015, Budva, Montenegro

14. Boskovic D, Badnjevic A. „Opportunities and Challenges in Biomedical Engineering Education for Growing Economies", IEEE 4th Mediterranean Conference on Embedded Computing (MECO), pp: 407-410, 14 – 18 June 2015, Budva, Montenegro

15. Gurbeta L, Badnjevic A, Pinjo N, Ljumic F, „ Software Package for Tracking Status of Inspection Dates and Reports of Medical Devices in Healthcare Institutions of Bosnia and Herzegovina", XXV International Conference on Information, Communication and Automation Technologies (IEEE ICAT), pp:1-5, 29-31 October 2015., Sarajevo, Bosnia and Herzegovina

16. Gurbeta L, Badnjevic A, Sejdinovic D, Alic B, Abd El-Ilah L, Zunic E, „Software Solution for Tracking Inspection Processes of Medical Devices from Legal Metrology System", XIV Mediterranean Conference on Medical and Biological Engineering and Computing (MEDICON), 31. March – 02. April 2016., Paphos, Cyprus.

17. Badnjevic A, Gurbeta L, Cifrek M, Marjanovic D, „Diagnostic of Asthma Using Fuzzy Rules Implemented in Accordance with International Guidelines and Physicians Experience", IEEE 39th International convention on information and communication technology, electronics and microelectronics (MIPRO), 30. May to 03. June 2016. Opatija, Croatia

18. Badnjevic A, Gurbeta L, Cifrek M, Marjanovic D, „Classification of Asthma Using Artificial Neural Network", IEEE 39th International convention on information and communication technology, electronics and microelectronics (MIPRO), 30. May to 03. June 2016. Opatija, Croatia

19. Badnjevic A, Gurbeta L, „Development and Perspectives of Biomedical Engineering in South East European Countries", IEEE 39th International convention on information and communication technology, electronics and microelectronics (MIPRO), 30. May to 03. June 2016. Opatija, Croatia

20. Aljovic A, Badnjevic A, Gurbeta L, „Artificial Neural Networks in the Discrimination of Alzheimer's disease Using Biomarkers Data", IEEE 5th Mediterranean Conference on Embedded Computing (MECO), 12 – 16 June 2016, Bar, Montenegro

21. Alic B, Sejdinovic D, Gurbeta L, Badnjevic A, „Classification of Stress Recognition using Artificial Neural Network", IEEE 5th Mediterranean Conference on Embedded Computing (MECO), 12 – 16 June 2016, Bar, Montenegro

22. Fojnica A, Osmanovic A, Badnjevic A, „Dynamical Model of Tuberculosis-Multiple Strain Prediction based on Artificial Neural Network", IEEE 5th Mediterranean Conference on Embedded Computing (MECO), 12 – 16 June 2016, Bar, Montenegro

23. Granulo E, Becar L, Gurbeta L, Badnjevic A, "Telemetry system for diagnosis of Asthma and Chronical Obstructive Pulmonary Disease (COPD)", The 3rd EAI International Conference on IoT Technologies for HealthCare, 18-19 October 2016, Vasteras, Sweden

24. Gurbeta L, Badnjevic A, Dzemic Z, Jimenez E.R, Jakupovic A, "Testing of therapeutic ultrasound in healthcare institutions in Bosnia and Herzegovina", 2nd EAI International Conference on Future Access Enablers of Ubiquitous and Intelligent Infrastructures, 24-25 October 2016, Belgrade, Serbia

25. Veljovic E, Spirtovic – Halilovic S, Muratovic S, Osmanovic A, Badnjevic A, et.al., "Artificial Neural Network and Docking Study in Design and Synthesis of Xanthenes as Antimicrobial Agents", CMBEBIH 2017. IFMBE Proceedings, vol 62. pp 617-626, Springer, Singapore. DOI: 10.1007/978-981-10-4166-2_93

26. Alic B, Gurbeta L, Badnjevic A, et.al., "Classification of Metabolic Syndrome patients using implemented Expert System", CMBEBIH 2017. IFMBE Proceedings, vol 62. pp 601-607, Springer, Singapore. DOI: 10.1007/978-981-10-4166-2_91

27. Badnjevic A, Gurbeta L, Cifrek M, Pecchia L., "Pre-classification process symptom questionnaire based on fuzzy logic for pulmonary function test cost reduction", CMBEBIH 2017. IFMBE Proceedings, vol 62. pp 608-616, Springer, Singapore. DOI: 10.1007/978-981-10-4166-2_92

28. Sejdinovic D, Gurbeta L, Badnjevic A, Malenica M, Dujic T, Causevic A, Bego T, Divovic L, "Classification of prediabetes and Type 2 Diabetes using Artificial Neural Network", CMBEBIH 2017. IFMBE Proceedings, vol 62. pp 685-689, Springer, Singapore. DOI: 10.1007/978-981-10-4166-2_103

29. Gurbeta L., Alic B., Dzemic Z., Badnjevic A. (2017) Testing of infusion pumps in healthcare institutions in Bosnia and Herzegovina. In: Eskola H., Väisänen O., Viik J., Hyttinen J. (eds) EMBEC & NBC 2017. EMBEC 2017, NBC 2017. IFMBE Proceedings, vol 65. Springer, Singapore

30. Gurbeta L., Alic B., Dzemic Z., Badnjevic A. (2017) Testing of dialysis machines in healthcare institutions in Bosnia and Herzegovina. In: Eskola H., Väisänen O., Viik J., Hyttinen J. (eds) EMBEC & NBC 2017. EMBEC 2017, NBC 2017. IFMBE Proceedings, vol 65. Springer, Singapore

31. B. Alić, L. Gurbeta and A. Badnjević, "Machine learning techniques for classification of diabetes and cardiovascular diseases," 2017 6th Mediterranean Conference on Embedded Computing (MECO), Bar, Montenegro, 2017, pp. 1-4. doi: 10.1109/MECO.2017.7977152

Refereed Conference Abstracts

1. Badnjevic A, Kreso S, Music O. „Remote control and meter reading using the MORSE network", 10th Conference BH K CIGRE, 25 – 29 September 2011., Sarajevo Bosnia and Herzegovina.

2. Badnjevic A, Sehic G, Gvozdenovic V, Beganovic E. „The efficiency of using membrane electrodes for the analysis of gases in the blood of on the real device", Collected papers of "May pulmological days" in Republic Srpska – 2011; 11(1):175-180.

3. Badnjevic A, Beganovic E, Gvozdenovic V, Sehic G. „Automatic system with closed-loop control of oxygen to improve mechanical ventilation in neonates", Collected papers of "May pulmological days" in Republic Srpska – 2011; 11(1): 266-270.

4. Badnjevic A, Beganovic E, Sehic G, Badnjevic A. „Advantages and Disadvantages of impulse oscillometry in comparison to spirometry for diagnosis of asthma and other damages of smaller airways", Collected papers of "May pulmological days" in Republic Srpska – 2012;

5. Badnjevic A, Beganovic E, Cifrek M, Koruga D. „Interpretation of the results of lung function tests for the purpose of classification of diseases of the respiratory system using and integrated software package", 4th Congress of Respiratory Society of Bosnia and Herzegovina, www.pulmo.co.ba, 16-18. May 2013, Sarajevo, Bosnia and Herzegovina.

6. Huskic V, Vardo A, Begic E, Hrvat E, Gurbeta L, Dzubur M, Badnjevic A, Dajic A, Kadic A., „Localization and 2D imaging of ST elevation myocardial infarction using software differentiation", 1st Conference on Medical and Biological Engineering in Bosnia and Herzegovina (CMBEBIH 2015), 13 – 15 March 2015., Sarajevo, Bosnia and Herzegovina

7. Gurbela L, Badnjevic A., „Medical Devices in Legal Metrology Framework", WHO Global Forum on Medical Devices, 09 – 12 May 2017., Geneva, Switzerland

INVITED LECTURES

Invited Presentations and Lectures

1. Invited Lecture: "Metrology in Medicine" at Balkan Health Forum 2013, Sarajevo, Bosnia and Herzegovina

2. Invited Lecture: "Metrology in Medicine" at Healtcare Days of Bosnia and Herzegovina 2013, Sarajevo, Bosnia and Herzegovina

3. Invited Lecture: "Traceability of medical measurement" at Balkan Health Forum 2014, Belgrade, Serbia

4. Invited Lecture: "Towards new medical device regulations in Bosnia and Herzegovina" at 6th European Conference (MBEC) of IFMBE, 07-11. September 2014., Dubrovnik, Croatia

5. Invited Lecture: "Metrology in Medicine – past, present, future" at Multitechnic Symposium 2014, Faculty of Mechanical Engineering, University of Sarajevo

6. Invited Lecture: "Classification of respiratory diseases using integrated software suite" at the 1st International Medical Student Congress (SAMED) 2015, Sarajevo, Bosna i Herzegovina

7. Invited Lecture: "Diagnosis of respiratory diseases using neuro-fuzzy expert systems" at Faculty of Electrical Engineering Podgorica and University of Podgorica 2015, Podgorica, Montenegro

8. Invited Lecture and Motivation Speech at CEO (Career and Entrepreneurship Opportunities) Conference 2015, Sarajevo, Bosna i Herzegovina

9. Invited Lecture: "Possible medical diagnostic and treatman errors caused by nonverificated medical devices" at 2nd International Medical Student Congress (SAMED) 2016, Sarajevo, Bosna i Herzegovina

10. Invited Lecture: "New approaches to maintenance procedures of Medical Devices with measuring functions" for IEEE Croatia Section and CROMBES at Faculty of Electrical Engineering and Computing, University of Zagreb, 2016, Zagreb, Croatia

11. Invited Lecture: "Legal Metrology Framework for Medical Devices" for representatives of Ministry of Health of Serbia, Technical engineers from healthcare institution and private companies in the field of medical devices in Serbia, 2016, Belgrade, Serbia

12. TEDx Talk Sarajevo, TEDxStarigrad Speaker, Sarajevo, Bosnia and Herzegovina, 2016

13. Invited Lecture: "Technology and Innovation for a brighter future", BiH IEEE Student and Young Professional Congress, 2016, Sarajevo, Bosnia and Herzegovina

14. Keynote Lecture: "New approaches to maintenance procedures of Medical Devices with measuring functions" at IEEE 5th Mediterranean Conference on Embedded Computing (MECO), 2016, Bar, Montenegro

15. Technical University of Vienna, COST Action, EMC and Safety of Medical Devices, 2017

16. Invited Lecture: "Legal Metrology Framework for Medical Devices", China and Central Eastern Europe Innovation Forum 2017, Bratislava, Slovakia, 2017

17. Training for Inspection and Calibration of Patient Monitors with Fluke Biomedical Equipment, employees of SIQ (Slovenian Institute of Quality and Metrology) Ljubljana, Slovenia, 2017

18. Invited Lecture: "Establishing traceability of medical devices and expert system development for automated respiratory diseases diagnosis", University of Pittsburgh, USA, 2018

19. Invited Lecture: "Application of Neural Networks in diabetes diagnosis", Tuzla Brain Week, Tuzla, Bosnia and Herzegovina, 2018

RESEARCH INTERESTS

- Biomedical Engineering
- Biomedical signals and Instrumentation
- Artificial Neural Network
- Fuzzy Logic
- Expert Systems

- Medical Devices
- Standards
- Accreditation
- Testing and verification
- Metrology

RESEARCH GRANTS, PROJECTS AND CONTRACTS

1. Measurement in Medicine: Introduction of Medical Devices with Measuring Function into Legal Metrology Framework of Bosnia and Herzegovina. Contributor (with H. Memić, D. Franjić, A. Šabeta, O. Šibonjić). Institute of Metrology of Bosnia and Herzegovina. (2013-2014). Project No: 03-02-3-998-FD-2/13

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 BiH. (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. Support to technical culture and innovation in Bosnia and Herzegovina for 2017. Ministry of Civil Affair of Bosnia and Herzegovina grant. (January to April 2018).

8. TAIEX Regional Workshop on Biomedical Engineering (Biomedical Signals, Medical Physics, Nanotechnology, Biosensors, Genetics, Renewable Energy Sources). European Commission. (February – December 2018)

THESIS SUPERVISION

Undergraduate thesis supervision

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	Ahmed Hasanagić, International Burch University Sarajevo, "Recording, acquistion and signal processing of ECG signals using Pasco sensor and Matlab"

PROFESSIONAL SCIENTIFIC SERVICES

Journal Responsibilities

Reviewer
1. International Journal of Electrical Power & Energy Systems, Elsevier
2. Medical & Biological Engineering & Computing Journal, Springer
3. Journal of Medical Systems, Springer
4. Scientific Reports Journal, Nature
5. Biomedical Signal Processing and Control, Elsevier

Editorial	1. Technology and Health Care Journal, IOS Press

Conference Responsibilities

Reviewer	1. IEEE International Conference on Computer as Tool (EUROCON), 2013, Croatia
	2. IEEE Mediterranean Conference on Embedded Computing (MECO), 2015, Montenegro
	3. World Congress on Medical Physics and Biomedical Engineering, Toronto 2015, Canada
	4. International Conference on Medical and Biological Engineering in Bosnia and Herzegovina (CMBEBIH), 2015, Bosnia and Herzegovina
	5. IEEE International Conference on Information, Communication & Automation Technologies (ICAT), 2015, Bosnia and Herzegovina
	6. IEEE Mediterranean Conference on Embedded Computing (MECO), 2016, Montenegro
	7. International Conference on Medical and Biological Engineering in Bosnia and Herzegovina (CMBEBIH), 2017, Bosnia and Herzegovina

Committee Member (Program, Scientific)	1. IEEE International Conference on Computer as Tool (EUROCON), 2013, Croatia
	2. European Conference of the International Federation for Medical and Biological Engineering, 2014, Croatia
	3. IEEE Mediterranean Conference on Embedded Computing (MECO), 2015, Montenegro
	4. IEEE Mediterranean Conference on Embedded Computing (MECO), 2016, Montenegro
	5. International Conference on Medical and Biological Engineering in Bosnia and Herzegovina (CMBEBIH), Bosnia and Herzegovina
	6. International Conference on Medical and Biological Engineering in Bosnia and Herzegovina (CMBEBIH), 2017, Bosnia and Herzegovina
	7. IEEE International Convention on Information and Communication Technology, Electronics and Microelectronics (MIPRO), 2016, Croatia
	8. The 3rd EAI International Conference on IoT Technologies for HealthCare, 2016, Sweden
	9. IEEE International Convention on Information and Communication Technology, Electronics and Microelectronics (MIPRO), 2017, Croatia
	10. Program Committee Member of 4th IEEE Middle East Conference on Biomedical Engineering, 2018, Tunisia
	11. IEEE Mediterranean Conference on Embedded Computing (MECO), 2018, Montenegro
	12. IEEE International Convention on Information and Communication Technology, Electronics and Microelectronics (MIPRO), 2018, Croatia

PROFESSIONAL/ACADEMIC HONOURS AND AWARDS

2016	International Burch University Sarajevo, Bosnia and Herzegovina, Rector's Academic Award
2016	CV included in Marquis Who's Who in the World
2018	IFMBE, Clinical Engineering Manuscript Award 2018

SCHOLARLY AND PROFESSIONAL AFFILIATIONS

- Member, Institute of Electrical and Electronics Engineers (IEEE)
- Board Member, IEEE International Technical Committee for Cardiopulmonary Systems
- Board Member, ESEM (European organization for Education Students in Engineering and Medicine)
- Member, International Federation on Medical and Biological Engineering (IFMBE)
- Member, European Alliance for Medical and Biological Engineering & Science (EAMBES)
- President, Bosnia and Herzegovina Medical and Biological Engineering (DMBIUBIH)
- President, IEEE/IFMBE CMBEBIH 2017 Conference
- Member, IEEE Engineering in Medicine and Biology Society
- Member, IEEE Standards Association
- Member of National Technical Committee for Health protection technology in Institute for standardization of Bosnia and Herzegovina
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