

MIROSLAVA RASPOPOVIĆ MILIĆ

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EDUCATION

University of Massachusetts Lowell, Lowell, MA, USA

Department of Electrical and Computer Engineering

Ph.D., Electrical Engineering, 2008

M.S., Electrical Engineering, 2003 (GPA: 3.7/4.0)

B.S., Electrical Engineering, 2001 (GPA: 3.77/4.0)

WORK EXPERIENCE

Metropolitan University, Faculty of Information Technology, Belgrade, Serbia

Associate Professor (2015 – present) / Assistant Professor (2010 – 2015)

- Teaching classes: Discrete Structures, Information Technology Systems, Introduction to Information Technology, Computer Networks, Wireless Computing, Introduction to Digital business, IT infrastructure, Organization business models
- Mentoring software projects: *Playground* (won 1st prize in Microsoft Imagine Cup Women's Athletic App Challenge), *vProtect* (coordinating development and implementation of the software platform), *VisiMart* (awarded at the Microsoft Imagine Cup 2012 local final with Telekom Award for the best mobile application), *codeNECT* (5th place at the local finale for the educational video game for teaching kids how to program by using interactive play, where every moment represented a specific software command)

Dean of Faculty of Information Technology 11/2010-present

- Quality control in education process of Faculty of Information Technology.
- Responsible for the vision and overall strategy for the Faculty.
- Developed new undergraduate and graduate programs which are in line with University mission and strategy
- Administration of teaching issues, performance assessment and analysis
- Close collaboration with software development team: definition of requirements for integration of educational processes in the institutional information system and learning management systems.

Consulting work

Software project management

- *Bezbedna* (2013) - managed design and development process for mobile app *Bezbedna* for Autonomni ženski centar
- *Varna* (2014) - managed design and development for mobile app *Varna* for Društvo SOS (Slovenia)

University of Massachusetts Lowell, Lowell, MA

Visiting Researcher (summer 2015)

- Conducted summer workshops for implementation of blended learning (flipped classroom) model into STEM classes

Postdoc, Institute for Visualization and Perception Research 06/2009-09/2009

- Worked on graphic user interface for visualization of health indicators through a web-based application
- Developed a set of unit tests for verification of imported health data in Flex (ActionScript)

Postdoc, Center for Advanced Computation and Telecommunications, 10/2008 – 05/2009

- Project focused on software defined radio (using Sundance SDR kit).

- Developed experimental modules that were used in a grant writing process for NSF GK-12 Grant “Vibes and Waves in Action”

Research Assistant, Center for Advanced Computation and Telecommunications, 09/2001-05/2008

Teaching Assistant, Electrical and Computer Engineering Department, 09/2002-05/2008

- Introduction to Engineering 1 and 2, Circuit Theory 1 and 2, Linear Systems, Electromagnetic Theory 1, Analog Devices

Andover Controls Corporation, Andover, Massachusetts

Embedded Software Group Intern:

- Designed test interface using C++ for I2 expansion modules, 06/2002 - 09/2002
- GUI development in VC++ for build system, 06/2001 - 09/2001

PROJECTS

Metropolitan University, Faculty of Information Technology, Belgrade, Serbia

Adaptive Online Learning, 2010-present

- Proposed a solution for integrating eLearning into an enterprise workflow system in order to be able to support an adaptive goal oriented course
- Proposed method for quality assessment and agile modes of development
- Designed software architecture for integration of Social Learning Environment with Institutional Learning System
- Designed software system that supports ontology models for organization and visualization of learning materials.
- Participated in developing 2 technical solutions

(Funded by Serbian Ministry of Science and Education)

Data analysis of social networks, 2016 – present

- Developing methods for harvesting and analysis of Twitter data, with the focus on conducting sentiment, spatial and temporal analysis

Fab lab Petnica, 2015-2016

- Developed online courses on edX platform for the creation of Maker space-modeled educational center, which includes digital fabrication, microcontrollers and entrepreneurship

(Funded by The Royal Norwegian Embassy in Belgrade)

Erasmus+ School-to-Work Transition for Higher education students with disabilities in Serbia, Bosnia & Herzegovina and Montenegro, 2015-2018

- Trans2work goal was to upgrade and prepare higher education institution services to support students with disabilities to their transition from HE to Work following the EU policies

(Funded by the Erasmus+ Program of the European Union)

Center for Advanced Computation and Telecommunications, Lowell, Massachusetts

Wireless Spectrum Sharing, 2004-present

- Proposed a queueing model to evaluate blocking performance of narrowband and wideband sources that access a shared pool of wireless channels. Of particular interest were the criteria under which software radios functioning in an opportunistic fashion can utilize the unused spectrum.
- Established an approach that may be used as a criterion to determine system parameters for multi-class input which allows performance improvement.
- Proposed a channel access method that may improve spectrum utilization of narrowband and wideband users accessing channels of the shared radio spectrum.
- Developed a queueing performance of a Network node served by a time-varying channel.

(Funded by MIT Lincoln Labs and National Science Foundation)

Exact Image Theory for Ultra Wideband Pulse Reflection, (MS thesis) 2001-2003

- Focused on wireless channel modeling using exact image theory. Of particular interest was modeling and the analysis of the short range/time reflections that occur when source and receiver are near single reflecting boundary in the indoor wireless. Simulation and analysis was performed on UWB signal.

Perception Based Audio Codec, 2001

- Developed Psychoacoustics and 3D Audio model for a digital audio coder/decoder for music.

SELECTED PEER-REVIEWED PAPERS

1. M. Raspopovic, S. Cvetanovic, I. Medan, D. Ljubojevic, The Effects of Integrating Social Learning Environment with Online Learning, *The International Review of Research in Open and Distributed Learning*, 18(1), pgs. 141-160, 2017.
2. M. Raspopovic, A. Jankulovic, Performance Measurement of e-Learning Using Student Satisfaction Analysis, *Information Systems Frontiers*, 19(4), pgs. 869-880, 2017.
3. M. Raspopovic, S. Cvetanovic, D. Stanojevic, M. Opacic, Software architecture for integration of institutional and social learning environments, *Science of Computer Programming*, vol. 129, pgs. 92-102, 2016.
4. M. Raspopovic, S. Cvetanovic, A. Jankulovic, Challenges for Transitioning to e-learning System with Learning Objects Capabilities, *The International Review of Research in Open and Distributed Learning*, Vol. 17, no. 1, 2016.
5. M. Vukmirovic, M. Raspopovic, Vulnerability of Public Space and the Role of Social Networks in the Crisis, Places and Technologies 2016, pgs. 769-778, Belgrade, Serbia, April, 2016.
6. N. Misiunas, M. Raspopovic, K. Chandra and A. Oztekin, Sensitivity of Predictors in Educational Data: A Bayesian Network Model, Proceedings of the 2015 INFORMS Workshop on Data Mining and Analytics, pgs. 1-6, Philadelphia, USA, November, 2015.
7. S. Cvetanović, M. Raspopović, A. Arsić, V. Vasić, Integration software architecture of e-learning system with Facebook, Proceedings of the Sixth International e-Learning Conference (eLearning-2015), pgs. 42-46, Belgrade, Serbia, 2015.
8. M. Beko, R. Dinis, M. Raspopovic, V. Lipovac, D. Strujic, Design of Good Constellations for Single-subcarrier Intensity-modulated Optical Systems, 2014 International Conference on Telecommunications and Multimedia (IEEE), pgs. 185-189, Heraklion, Greece, 28-30 July, 2014.
9. S. Tomic, M. Beko, R. Dinis, and M. Raspopovic, Distributed RSS-based Localization in WSN using Convex Relaxation, *Proceedings of IEEE ICNC'14*, pgs. 853-857, Hawaii, USA, 2014 (DOI: 10.1109/ICCNC.2014.6785449).
10. N. Misiunas, M. Raspopovic, C. Thompson, and K. Chandra, Spectrum Sharing with Adjacent Channels Constraints, IEEE SoftCOM, Split, Croatia, 2012.

SELECTED PRESENTATIONS AND PUBLISHED ABSTRACTS

1. M. Raspopovic, Programming of Application for Mobile Devices and Student Competition MET Mobile Challenge, New Technologies in Education, Belgrade, Serbia (2015).
2. M. Raspopovic, Women as Decision Makers in the ICT Industry, Youth Spark Live, invited talk, Youth Spark Live, Microsoft Serbia and Foundation Dokukino, Belgrade, Serbia (2014).
3. M. Raspopovic, Build World of Apps – Windows Phone Application Development Process, invited seminar, DigiGirlz Day, Microsoft Serbia, Belgrade, Serbia (2013).
4. C. Thompson, J. Tsui, M. Denis, and M. Raspopovic. Model-based Virtual Room Acoustics. J. of Acoustical Society of America, vol. 109, No. 5, pg. 2460, (2001).
5. M. Raspopovic. Perception Based Audio Codec. 2nd Meeting of the Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring. Lexington, KY, (2001).

TECHNOLOGICAL/SOFTWARE INNOVATIONS

1. D. Domazet, Lj. Jovev, D. Veljković, B. Nikolić, S. Cvetanović, **M.Raspopović**, V. Paunović, N. Dimitrijević, M. Marković, V.Šormaz, M. Lalić, N. Gavrilović, Sistem za e-učenje Univerziteta Metropolitan koji koristi objekte učenje i kolaborativne metode interakcije studenata i nastavnika, 2013.
2. D. Domazet, Lj. Jovev, D. Veljković, B. Nikolić, S. Cvetanović, **M.Raspopović**, V. Paunović, N. Dimitrijević, M. Marković, V.Šormaz, M. Lalić, N. Gavrilović, Sistem za e-učenje na bazi objekata učenja. Verzija 2.0 (decembar 2014), 2014.

COMPUTER SKILLS

C, Visual C++, HTML, CSS, JavaScript, Verilog, Java, SQL, HDL, Matlab, Database modeling

AWARDS/HONORS

- Mentor for Microsoft Imagine Cup winners for Athletic Windows Phone App Challenge
- Voted for the teacher who had the most positive influence on students at BMU's FM ranked by iSerbia, 2012
- DySPAN Student Grant, 2007
- Jacob Ziskind Scholarship, 2007
- MILCOM Student Grant Award, 2005
- Graduate Research Grant Award, 2004
- Sigma Xi, 2003
- Outstanding Graduate Student, 2002
- Prof. Charlie Steele Scholarship, 2002
- SWE Scholarship, 2001/2002
- Chancellor's Medal, 2001
- The Prof. Carl A. Stevens Award for High Academic Achievement, 2001
- Professional Development Grant Award, 2001, 2005, 2007
- J.B. Francis Scholarship, 2001
- Who's Who Among American Students and Colleges, 2001
- Academic All-American, 1999,2001
- NCAA Woman of The Year, 1999
- Tau Beta Pi, 2000
- Eta Kappa Nu, 2000

OTHER ACTIVITIES

- KK Crvena Zvezda, Basketball Senior Team, 4 years
- Yugoslavian Junior Basketball National Team, 2 years
- Academic Advisor for Student-Athletes, UMass Lowell 2003-2008
- Coordinator for the Engineering Week Events, UMass Lowell, February 2002
- Coordinator for Engineering Clubs (SWE, SEA, and E-Council), UMass Lowell 09/2001-05/2002
- Coordinator of the Mentoring Program "Heads Up", UMass Lowell 2000/2001
- Varsity Women's Basketball, 2000/2001 captain
- Member, Student-Athlete Advisory Council, 1999-2001

LANGUAGES

English (fluent), Russian (basics), Serbian (native)

References available upon request.