Curriculum Vitae – Nenad Bascarevic, M.Sc.E.E

Personal

Name: Nenad M. Bascarevic

Born: 17th of August 1987, Cacak, Serbia

Citizenship: Serbia

Current role: Process engineer and project manager at Robert Bosch, Serbia

Adress: Dositejeva 33, 22310 Simanovci, Serbia

Phone: +381 22 405009 / **Cell:** +381 60 4676640

E-mail: Nenad.Bascarevic@bosch.com

Education

PhD degree **(2011 – present**)	Faculty of Electrical Engineering, University of Belgrade
Masters degree **(2010 – 2011**)	Faculty of Electrical Engineering, University of Belgrade *Department*: Signals & Systems *Field*: Control systems & Robotics *GPA*: 9.83 (out of 10.00) *Master thesys*: Control evaluation of a mobile anthropomimetic robot based on the analysis of coupling between robot and its mobile base, *mentor:* Prof. Veljko Potkonjak.
Dipl. Ing. degree **(2006 – 2010**)	Faculty of Electrical Engineering, University of Belgrade *Department*: Signals & Systems *Field*: Control systems & Signal Processing *GPA*: 9.73 (out of 10.00) *Diploma thesys*: Software development for antropomimetic robot simulation, *mentor:* Prof. Veljko Potkonjak.

Experience/Career/Projects

Feb 2013 - present	Process engineer specialist at Robert Bosch, division Electrical drives-wiper systems, department Technical Functions. Responsible for software control of production lines; Programming, optimization and maintenance of PLCs.
July 2012 - Jan 2013	Internship at Robert Bosch GmbH (www.bosch.com), division Electrical drives-wiper systems, departments MFG and RBBE/TEF2. Departments responsible for plant planning and project management within technical functions.
Jan 2012 – Dec 2012	Research assistant at project funded by Serbian ministry of education & science - *Development of the ambience intelligent service robots with anthropomorphic features*.

Okt 2010 - Feb 2012	Research assistant at European FP7 project - *ECCEROBOT (Embodied Cognition in a Compliantly Engineered Robot)*. Part regarding engineering analysis and control theory. (www.eccerobot.org)
July-September 2010	Internship at Mechatronics and Dynamics department at Faculty of Mechanical Engineering, Heinz Nixdorf Institute, University of Paderborn, Germany (www.upb.de/mud). Development of programs for laboratory equipment.

Awards	
2012	"Ost-Ausschuss der Deutschen Wirtschaft i Deutsche Industrie - und Handelskammer" and "Zoran Djindjic Internship Programme of German Business'' Scholarship for professional education in Germany
2011	The 1st prize at the 17th International Students Competition in Engineering – ICAMES 2011 – Istanbul, Turkey
2010	Ministry of Education and Sports Scholarship
2010	DAAD and IAESTE (The International Association for the Exchange of Students for Technical Experience) Scholarship for internship in Germany

Student's projects	
Nonlinear control systems	Various nonlinear methods in Hard Disk Drive Control, nonlinear control methods applied on model of series DC motor, cart-pole model and boost DC/DC converter.
Industrial Process Control	SCADA systems: for Reni wells, driers; PLC control: real time control of the pistons, AC motor, Reni wells; Microcontrollers: real time control of the drier and control performances.
Control of laboratory equipement	Control of measuring equipment via GPIB-GPIB and USB-GPIB connection using Agilent VEE Pro & Express
Digital image processing	Applying different methods for image quality improvements using Matlab
Programming	Matlab and C/C++ for efficient software performances

Publications	
Journals:	V. Antoska, K. Jovanovic, V. Petrovic, **N. Bascarevic**, M. Stankovski, "Balance Analysis of the Mobile Anthropomimetic Robot Under Disturbances – ZMP Approach", International Journal of Advanced Robotic Systems (InTech), Vol. 10, Paper 206, pp. 1-10, 2013.
	S. Wittmeier, C. Alessandro, **N. Bascarevic**, K. Dalamagkidis, A. Diamond, M. Jantsch, K. Jovanovic, R. Knight, H. G. Marques, P. Milosavljevic, B. Svetozarevic, V. Potkonjak, R. Pfeifer, A. Knoll, O. Holland, "Toward Anthropomimetic Robotics: Development, Simulation, and Control of a Musculoskeletal Torso", Artificial Life (MIT Press), Vol. 19, No. 1, pp. 171-193, 2013.
Conferences:	V. Potkonjak, **N. Bascarevic**, P. Milosavljevic, K. Jovanovic, O. Holland, „Experience-Based Fuzzy Control of an Anthropomimetic Robot", Proc. International Joint Conference on Computational Intelligence (CFP IJCCI 2012), Barcelona, Spain, October 2012., pp 389-394
	N. Bascarevic, K. Jovanovic, P. Milosavljevic, V. Potkonjak, O. Holland, „Tip-over Stability Examination of a Compliant Anthropomimetic Mobile Robot", Proc. 2012

	IEEE Multi-conference on Systems and Control (IEEE MSC 2012), Dubrovnik, Croatia, October 2012., pp 1584-1589
	P. Milosavljevic, K. Jovanovic, **N. Bascarevic**, V. Potkonjak, O. Holland, „Heuristic Machine-Learning Approach to the Control of an Anthropomimetic Robot Arm", Proc. 10th IFAC Symposium on Robot Control (SYROCO 2012), Dubrovnik, Croatia, September 2012., pp 301-306
	V. Potkonjak, K. Jovanovic, P. Milosavljevic, **N. Bascarevic**, O. Holland, "The Puller-Follower Control Concept For The Multi-Joint Robot With Antagonistically Coupled Compliant Drives", *The 2nd IASTED International Conference on Robotics (Robo 2011)*, Pittsburgh, USA, November 2011. pp 375-381
Domestic conferences:	P. Milosavljevic, **N. Bascarevic**, K. Jovanovic, G. Kvascev, "Neural Networks in Feedforward Control of a Robot Arm Driven by Antagonistically Coupled Drives", *The 11th Symposium on Neural Networks Applications in Electrical Engineering (NEUREL 2012)*, Belgrade, Serbia, September, 2012.
	P. Milosavljevic, **N. Bascarevic**, V. Potkonjak, "Experience-Based Control of a Robot Arm with Antagonistic Drives", *The 56th ETRAN Conference*, Zlatibor, Serbia, June, 2012. pp RO2.8- 1-4
	N. Bascarevic, K. Jovanovic, V. Potkonjak, "A Tip-over Stability Analysis of an Anthropomimetic Wheeled Robot Based on ZMP", *The 56th ETRAN Conference*, Zlatibor, Serbia, June, 2012. pp RO2.9 - 1-4
	K. Jovanovic, **N. Bascarevic**, "Modeling Contact Dynamics of the Anthropomimetic Robot – ECCEROBOT", *The 55th ETRAN Conference*, Teslic, Bosnia and Herzegovina, June, 2011. pp RO1.8- 1-4
	N. Bascarevic, M. Tomic, P. Milosavljevic, " Symbiosis of Programming Languages Matlab and C++ for Efficient Robot Simulation", *The 55th ETRAN Conference*, Teslic, Bosnia and Herzegovina, June, 2011. pp RO1.6- 1-4

Activities	
April 2012 – present	Member of Foundation „dr Zoran Djinjic" (http://www.fond-djindjic.org)
Oct 2010 - present	Member of the ETF Robotics research group (http://robot.etf.rs)

Other skills	
Languages:	- English (advanced) - German (basic)
Computer skills:	- MS Office - Tools – Matlab & Simulink, C/C++, SketchUp, SCADA, Step7, Agilent VEE Pro & Express
Personality:	flexible, well-organized, team player, communicative, ambitious
Driving license:	B