

Curriculum Vitae



PERSONAL INFORMATION

Name and surname: **Milosavljevic Predrag**
Date of birth: October 2, 1987.
Address: Ch. de la Cocarde 21, 1024 Ecoblens
Citizenship: Switzerland
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EDUCATION

2013 – present **Phd** studies at EPFL, University of Belgrade; Automatic Laboratory
M. Sc in Electrical Engineering, Signals & Systems Department, Faculty of Electrical Engineering, University of Belgrade; GPA 9.8 of 10
Field: Process Control & Robotics
Master thesis: "*Control synthesis of an anthropomimetic robot with passive compliance and the analysis of its energy efficiency*" mentor Full Prof. Veljko Potkonjak
2006 – 2010 **B.E.E.** in Electrical Engineering, Signals & Systems Department, Faculty of Electrical Engineering, University of Belgrade; GPA 9.6 of 10
Field : Process Control & Signal Processing
Diploma thesis: "*Control of an anthropomimetic robot arm with seven degrees of freedom*" mentor Full Prof. Veljko Potkonjak

WORK EXPERIENCE

Nov 2012 – present Intern at Fraunhofer Insitute (IPK), Berlin (<http://www.ipk.fraunhofer.de/>), Department for Automation Technology and Robotics - *Control of redundant advanced robotic systems*
Jan 2012 – present Research assistant at Faculty of Electrical Engineering (www.etf.rs) at project funded by Serbian ministry of education & science
Oct 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 – Sept 2010 Research internship in mechatronics field at University of Merseburg, Germany; Analysis of the effect of biogenous fuels in diesel engines. Analysis of emission of compact biomass in small fireplaces. Development of piston engines by using modern piston materials; Conecting PC and diesel motor ECU providing the system data exchange.

AWARDS AND SCHOLARSHIPRS

Sept 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
May 2011

2010 – 2011	Award for the 1st prize at the 17th International Students Competition in Engineering – ICAMES 2011, Istanbul, Turkey
2010	Ministry of Education and Sports Scholarship
2010	Republic Foundation Scholarship for development of Scientific and Artistic youth in Serbia
2008 – 2011	DAAD and IAESTE (The International Association for the Exchange of Students for Technical Experience) Scholarship for internship in Germany Scholarship "Dragoslav Srejsovic" for outstanding achievements of students from the city of Kragujevac

PROJECTS

Oct 2009 – Oct 2011	<ul style="list-style-type: none"> • Software for simulation of humanoid robot, modelling and control using MatLab (within ECCEROBOT project) • Various nonlinear methods in Hard Disk Drive Control, few home works about nonlinear control methods, applied on model of series DC motor, cart-pole model and boost DC/DC converter (subject: Nonlinear control systems) • Thermo regulation of drier programming PLC and SCADA application, Control of AC motor - programming PLC, Water Distribution System using MatLab Real Time toolbox (subject: Industrial process control) • Thermo regulation of drier programming microcontroller (subject : Real time control) • Simulation and analysis of various linear dynamic systems using MatLab (subjects : Signals and systems, Automatic control systems) • Digital signal processing and analysis of digital filters using MatLab (subject : Digital signal processing) • Various methods for identification parameters of process model using MatLab (subject : Process modelling and identification) • Methods for classification and classterization patterns (subject : Pattern recognition)
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PUBLICATIONS

Jurnals:	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, "Towards Anthropomimetic Robotics", <i>Artificial Life, (M I T press)</i> , accepted for publishing.
International Conferences:	<p>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</p> <p>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> <p>P. Milosavljevic, N. Bascarevic, K. Jovanovic, G. Kvascev, "Neural networks in feedforward control of a robot arm driven by antagonistically coupled drives", <i>The 11th Symposium on Neural Networks Applications in Electrical Engineering (NEUREL 2012)</i>, Belgrade, Serbia, September, 2012.</p> <p>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,</p>

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", Proc. of 2nd IASTED Intl. Conf. on Robotics (Robo2011), Pittsburgh, USA, November 2011, pages 375-381

Domestic
Conferences:

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, **P. Milosavljevic**, "A tip-over stability analysis of an anthropomorphic wheeled robot based on ZMP", The 56th ETRAN Conference, Zlatibor, Serbia, June, 2012. pp RO2.9 – 1-4

P. Milosavljevic, K. Jovanovic, V. Potkonjak, "The Puller-Follower Control Concept in the Multi-Jointed Antropomorphic Robot Body", The 55th ETRAN Conference, Teslic, Bosnia and Herzegovina, June, 2011. pp RO1.7- 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

SKILLS

Language

English: upper-intermediate; German: elementary

Software tools

Matlab, Simulink, MikroC, Step7, Maple, LabView

Programming language

C/C++, Pascal

Excellent knowledge in computer science (Windows, MS Office)

Driving licence (category B)

ACTIVITIES

Oct 2010 – present

Member of the ETF Robotics research group (<http://robot.etf.rs>)

Jun – Oct 2012

Serbian Center for the Promotion of Science, „Days of Future: Robotics“ (24th of Sept. – 15th of Oct.) (<http://danibuducnosti.rs/>), Participant and Lecturer

2009 – 2010

EESTEC – Electrical Engineering Students' European Association (cooperation with companies and events organization (<http://eestec.etf.rs/>))

2009

Participation at JobFair 09 as organizer at info and CV corner