

**Nebojša Malešević, PhD**  
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#### EDUCATION

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<b>2007-2014</b>	PhD studies at department of Biomedical Engineering, Faculty of Electrical Engineering, University of Belgrade, Serbia.
<b>PhD Thesis</b>	System for functional electrical stimulation based on multi-pad electrodes (supervisor: Prof. Dejan Popović)
<b>2002-2007</b>	Faculty of Electrical Engineering, University of Belgrade, Serbia, Medical and nuclear engineering department.
<b>Diploma work</b>	Motor drive for control of pelvis motion during gait (supervisor: Prof. Dejan Popović)
<b>1998-2002</b>	General high school in Belgrade, main subjects: mathematics, physics and Computer science.
<b>1990-1998</b>	Elementary school "Radojka Lakić" in Belgrade

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#### WORK EXPERIENCE

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<b>2007</b>	Internship program in the field of laser distance sensors in <b>MEL</b> Mikroelektronik GmbH, Munich, Germany, during a period of six weeks.
<b>Feb 2008 -</b>	Associate researcher at department of Biomedical Engineering, Faculty of Electrical Engineering, University of Belgrade, Serbia.
<b>Oct 2008 -</b>	Research in the field of motor control and rehabilitation in „Fatronik Serbia“, Belgrade, Serbia.

#### *Work with patients*

- Institute for Neurology, KCS, Belgrade (tremor – Parkinson disease, essential and cerebellar tremor).
  - Rehabilitation clinic "Dr. M. Zotović", Belgrade (CVI, brain traumas).
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#### PROJECTS

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##### *National*

<b>2008-2010</b>	<b>#ET11019, MNS</b> , „Razvoj programske podrške za upravljanje hodanjem i upravljanje manipulacijom“, PI: Dejan Popović.
<b>2011-2014</b>	<b>#175016, MNS</b> , „Efekti asitivnih sistema u neurorehabilitaciji senzorno-motornih sistema“, applicated, PI: Mirjana Popović.

##### *International*

<b>2009-2010</b>	<b>INTFES (INTelligent FES)</b> in „Fatronik Serbia“, Belgrade, Serbia, PI: Nebojša Malešević.
<b>2011-2014</b>	<b>FESAPP Lower Extremities</b> in „Tecnalia Serbia“, Belgrade, Serbia, PI: Nebojša Malešević.

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#### PATENTS & PUBLICATIONS

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##### *International journals*

<b>Oct 2010</b>	<b>N. Malesevic</b> , L. Popović, L. Schwirtlich and D.B. Popovic, Distributed low-frequency functionalelectrical stimulation delays muscle fatigue compared to conventional stimulation, Muscle and Nerve, pp. 42(4): 556-562, DOI 10.1002/mus.21736. M23(neuroscience)
<b>Dec 2010</b>	<b>N. Malešević</b> , L. Popović, G. Bijelić and G. Kvaščev, Muscle twitch responses for shaping the multi-pad electrode for functional electrical stimulation, Journal of Automatic Control, Vol. 20(1), pp.53-58, DOI: 10.2298/JAC1001053M (M52)
<b>Sep 2012</b>	<b>N. Malešević</b> , L. Popović Maneski, V. Ilić, N. Jorgovanović, G. Bijelić, T. Keller,

D. Popović, A Multi-Pad Electrode based Functional Electrical Stimulation System for Restoration of Grasp, *Journal of Neuroengineering and Rehabilitation*, 9:66, 2012, DOI:10.1186/1743-0003-9-66

M21 (Engineering, Biomedical).

**2013** M. Štrbac, **N. Malešević**, R. Čobeljić and L. Schwirtlich, Feedback control of the forearm movement of tetraplegic patient based on Microsoft Kinect and multi-pad electrodes, *Journal of Automatic Control*, vol. 21(1), pp 7-11, 2013. (DOI: 10.2298/JAC1301007S)

(M52)

**Dec 2013** L. Popović-Maneski, **N. Malešević**, A. Savić. T. Keller. D.B.Popović, Surface distributed low-frequency asynchronous stimulation (sDLFAS) delays fatigue of stimulated muscles, *Muscle & Nerve*, 2013 Dec, vol. 48, no.6, pp. 930-7. doi: 10.1002/mus.23840

(M23)

**2014** A. M. Savić, **N. M. Malešević**, and M. B. Popović, Feasibility of a Hybrid Brain-Computer Interface for Advanced Functional Electrical Therapy, *The Scientific World Journal*, vol. 2014, Article ID 797128, 11 pages, 2014. doi:10.1155/2014/797128

(M23)

*International journal abstracts*

**Sept 2010** **N. Malešević**, G. Bijelić, Methods for in vitro study of electrical current and electrical field distribution in layered biological tissue, *Artificial Organs* Vol. 34, No. 8, 2010, A35. (M22-Engineering, Biomedical)

**Sept 2010** L. Popović, **N. Malešević**, I. Petrović, MB. Popović, Semi-closed loop tremor attenuation with FES, *Artificial Organs* Vol. 34, No. 8, 2010, A31.

(M22-Engineering, Biomedical)

*International conferences*

**May 2009** L Popović, **N Malešević**, MB Popović, Optimization of Multi-pad Surface Electrode: Selective Stimulation of Wrist, *Proc of IEEE EuroCON*, St. Petersburg, Russia, May 18-23, 2009, pp.142-145. (M33)

**Sept 2009** L. Popović, **N. Malešević**, Muscle Fatigue of Quadriceps in Paraplegics: Comparison between Single vs. Multi-pad Electrode Surface Stimulation, *Proc of IEEE EMBC*, Minneapolis, MN, Sept 2-6, 2009, pp.6785-6788. (M33)

**Sept 2010** **N. Malešević**, G. Bijelić, Methods for in vitro study of electrical current and electrical field distribution in layered biological tissue, *Proc of IFESS*, Sept 8-12, 2010, Vienna, Austria, pp. 297-299. (M33)

**Sept 2010** L. Popović, **N. Malešević**, I. Petrović, MB. Popović, Semi-closed loop tremor attenuation with FES, *Proc of IFESS*, Sept 8-12, 2010, Vienna, Austria, pp.65-67.

(M33)

**Aug 2012** A. Savić, **N. Malešević**, M.B. Popović, Cue-based control of three FES induced movements by motor imagery driven BCI, *IEEE EMB/CAS/SMC Workshop on Brain-Machine-Body Interfaces*, San Diego, California, USA, 27. Aug. 2012

(M33)

**Nov 2012** A. Savić, **N. Malešević**, M.B. Popović, Motor imagery driven BCI with cue-based selection of FES induced grasps, *International Conference on NeuroRehabilitation 2012*, Toledo, Spain, 14-16 November 2012.

(M33)

**June 2013** M. Štrbac, **N. Malešević**, R. Čobeljić and Laszlo Schwirtlich, Feedback control of the forearm movement of tetraplegic patient based on Microsoft Kinect and multi-pad electrodes, *Proceedings of the 18th IFESS Annual Conference 2013*, 5-8 June 2013, San Sebastián, Spain

(M33)

- June 2013** L. Popović-Maneski, M. Janković, T. Jevtić, **N. Malešević**, M. Radulović, M. Kostić, G. Bijelić, T. Keller, N. Jorgovanović, V. Ilić, D.B. Popović, Functional electrical stimulation (FES) for augmenting of the reaching and grasping, Proceedings of the 18th IFESS Annual Conference 2013, 5-8 June 2013, San Sebastián, Spain (M33)
- Sep 2013** **N. Malešević**, L. Popović-Maneski, D.B. Popović, "The force feedback instrument: a tool for the assessment of the efficacy of the multi-pad electrode electrical stimulation and feedback for closed loop control", 10<sup>th</sup> Mediterranean Congress of PRM, 2013. (M34)

*International conference abstracts*

- Jun 2010** L. Popović, **N. Malešević**, I. Petrović, M.B. Popović, Closed-loop tremor attenuation with Functional Electrical Stimulation, *Abstract on ISEK Conference*, June 16-19, 2010, ISBN: 978-87-7094-047-4. (M34)

*National conferences*

- June 2007** **N. Malešević**, Đ. Smiljanić, U. Mitrović, Digitalni instrument za merenje relativne vlažnosti vazduha metodom tačke rose, *Proc of 51<sup>st</sup> ETRAN*, June 2007, Herceg Novi, Serbia, ML2.4, Student paper award. (M63)
- June 2007** U. Mitrović, **N. Malešević**, I. Milovanović, M. Popović, Evaluacija sistema za detekciju faze zamaha hoda upotrebom akcelerometra ADXL311, *Proc of 51<sup>st</sup> ETRAN*, June 2007, Herceg Novi, Serbia, ME1.7, Student paper award. (M63)
- June 2008** **N. Malešević**, L. Popović, PRORACUN ELEKTRICNOG POLJA TKIVA PRI STIMULACIJI MATRICNOM ELEKTRODOM, *Proc of 52<sup>nd</sup> ETRAN*, June 2008, Palić, Serbia, ME1.3. (M63)
- Sept 2008** **N. Malešević**, ANN for Automatic Shaping of the Multi-Contact Surface Electrodes, *Proc of 9<sup>th</sup> NEUREL 2008*, Editors: Reljin B, Stankovic S, Belgrade, Sept 25-27, 2008. ISBN: 978-1-4244-2903-5, IEEE Catalog Number: CFP08481-PRT, pp. 133-135. (M33)
- Jun 2009** **N. Malešević**, Estimation of supination-pronation angles with inertial sensors: application in dynamics shaping of multi-pad surface electrode, *Proc 53<sup>rd</sup> ETRAN*, 15-18 June 2009, Vrnjacka Banja, Serbia, ME1.1 (M63)
- Sept 2010** **N. Malešević**, L. Popović, G. Bijelić, G. Kvaščev, Classification of muscle twitch response using ANN: Application in multi-pad electrode optimization, *Proc of Neurel*, Belgrade, Serbia, Sept 23-25, 2010, pp.11-13. (M33)
- Sep 2012** V. Kojić, N. Miljković, **N. Malešević**, D. Popović, H-reflex Recorded by Multi-pad EMG Electrodes, *Proc of Neurel*, Belgrade, Serbia, Sept 20-22, 2012 (M33)
- Nov 2012** A. Savić, **N. Malešević**, M.B. Popović, Motor Imagery based BCI for control of FES, Symposium of Clinical Neurology 2012 with international participation, Military Medical Academy, Belgrade, Serbia (M63)

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PROFESSIONAL MEMBERSHIPS

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LANGUAGES

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- English (fluent)
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