

НАУЧНОМ ВЕЋУ
ИНСТИТУТА ТЕХНИЧКИХ НАУКА САНУ

МОЛБА

У складу са одредбама Закона о научно истраживачкој делатности молим да покренете поступак за мој избор у звање **виши научни сарадник**.

Ради покретања поступка за избор у звање виши научни сарадник, предлажем следећу комисију:

1. Др Лидија Матија, редовни професор Машинског факултета Универзитета у Београду и научни саветник
2. Др Ненад Игњатовић, научни саветник Института техничких наука САНУ
3. Др Војин Илић, ванредни професор Факултета техничких наука Универзитета у Новом Саду.

У прилогу достављам:

1. ПРИЛОГ 1 - БИОГРАФИЈА
2. ПРИЛОГ 2 - НАУЧНА БИБЛИОГРАФИЈА
3. ПРИЛОГ 3 – СВЕДОЧАНСТВА О ИСПУЊАВАЊУ КВАЛИТАТИВНИХ КРИТЕРИЈУМА
4. ПРИЛОГ 4 – ДОКАЗ О ОБЈАВИ И ПРИХВАТАЊУ ПАТЕНАТА
5. ПРИЛОГ 5 - ИЗВЕШТАЈ О ЦИТИРАНОСТИ РАДОВА
6. ПРИЛОГ 6 - КОПИЈА ОДЛУКЕ О СТИЦАЊУ ПРЕТХОДНОГ НАУЧНОГ ЗВАЊА НАУЧНИ САРАДНИК

Лана Поповић Манески

Др Лана Поповић Манески

У Београду, 31.03.2020.

ПРИЛОГ 1 - БИОГРАФИЈА

Др Лана Поповић-Манески је рођена 21.04.1983. године у Београду. Основну школу и гимназију је завршила у Београду. Дипломирала на Електротехничком факултету Универзитета у Београду 2007. године из области аутоматике, а 2011. године је одбранила докторску дисертацију из области биомедицинског инжењерства на истом факултету. Од 2008. до 2013. године се бавила истраживачким радом у домену развоја асистивних система након можданог удара и ампутације руке на бази електричне стимулације нерава и мишића у предузећу *Tecnalia Serbia*, које је део фондације *Tecnalia Research & Innovation* из Сан Себастиана, Шпанија. Почетком 2012. године је изабрана у звање доцента за област рачунарства и електротехнике на Државном Универзитету у Новом Пазару. Од 2013.-2016. године је ангажована и у настави на Машинском факултету Универзитета у Београду, на модулу за биомедицинско инжењерство. Од 2015. је научни сарадник у ИТН-САНУ у Београду. Од 2017. је власник предузећа *3F-Fit Fabricando Faber* које се бави развојем неуро-мишићних стимулатора. Учествовала је на неколико међународних пројекта (FP7, *Tempus*, COST, HORIZON2020, билатералне сарадње) и пројектима Министарства за просвету, науку и технолошки развој од 2008 до данас. Реџент је 5 часописа на СЦИ листи, коедитор часописа *Neuroprosthetics – specialty session of Frontiers in Neurology and Frontiers in Neuroscience*, евалуатор европске комисије за *FET-OPEN* пројекте и аутор/коаутор на више од 25 радова који су цитирани преко 400 пута (329 без аутоцитата) х-индексом=11 према бази података *Scopus* на дан 9.2.2020. Аутор и коаутор је 4 уџбеника за мастер програм „Мехатроника у рехабилитацији“ Универзитета у Београду и члан комисије за одбрану 2 мастер рада. Има један регистрован патент. Уже области интересовања су примене функционалне електричне стимулације и роботских система у неурорехабилитацији и обрада медицинских сигнала. Осим српског, говори још четири језика (енглески, француски, португалски и немачки).

ПРИЛОГ 2 - НАУЧНА БИБЛИОГРАФИЈА

Радови рачунати за претходни избор у звање научни сарадник:

M21 Рад у врхунском међународном часопису:

1. Malesevic N, **Popovic-Maneski L**, Ilic V, Jorgovanovic N, Bijelic G, Keller T, Popovic DB. A Multi-Pad Electrode based Functional Electrical Stimulation System for Restoration of Grasp. *J Neuroeng & Rehab*, Vol 9(66), 2012, doi:10.1186/1743-0003-9-66.
2. **Popović-Maneski L**, Kostić M, Bijelić G, Keller T, Mitrović S, Konstantinović Lj, Popović DB. Multi-pad electrode for effective grasping: design. *IEEE Trans Neur Syst & Rehab Eng*, Vol 21(4), pp. 648-654, 2013, DOI: 10.1109/TNSRE.2013.2239662.

M22 Рад у истакнутом међународном часопису

1. **L. Popović Maneski**, N. Jorgovanović, V. Ilić, S. Došen, T. Keller, M.B. Popović, D.B. Popović, Electrical stimulation for the suppression of pathological tremor, *Medical and Biological Engineering and Computing*, Vol. 49, pp. 1187-1193, 2011, ISSN: 0140-0118, DOI: 10.1007/s11517-011-0803-6
2. **L. Popović**, T. Šekara, I, MB. Popović, Adaptive band-pass filter (ABPF) for tremor extraction from inertial sensor data, *Computer Methods and Programs in Biomedicine*, Vol. 99 (3), pp. 298-305, 2010, DOI: 10.1016/j.cmpb.2010.03.018.
3. J.L. Dideriksen, F. Gianfelici, **L. Popovic**, D. Farina, EMG-based characterization of pathological tremor using the Iterated Hilbert Transform, *IEEE Transactions on Biomedical Engineering*, Vol. 58(10), pp. 2911-2921, 2011, DOI: 10.1109/TBME.2011.2163069

M23 Рад у међународном часопису:

1. M. Manto, G. Grimaldi, T. Lorivel, D. Farina, **L. Popović**, S. Conforte, T. D'alessio, J. Beldal-Lois, E. Rocon, Bioinformatic Approaches Used In Modeling Human Tremor, *Current Bioinformatics*, Vol. 4, No.2, pp. 154-172, 2009, DOI: 10.2174/157489309788184747.
2. N. Malešević, **L. Popović**, L. Schwirtlich and D.B. Popović, Distributed low-frequency functional electrical stimulation delays muscle fatigue compared to conventional stimulation, *Muscle and Nerve*, pp. 42(4): 556-562, 2010, DOI 10.1002/mus.21736.
3. **Popović-Maneski L**, Malešević N, Savić A, Keller T, Popović DB. Surface distributed low-frequency asynchronous stimulation (sDLFAS) delays fatigue of stimulated muscles. *Muscle & nerve*, Vol 48(6), pp.930-937, 2013, DOI: 10.1002/mus.23840.

M33 Саопштење са међународног скупа штампано у целини:

1. **L. Popović**, MB. Popović, Extraction of Tremor for Control of Neural Prostheses: Comparison of Discrete Wavelet Transform and Butterworth Filter, *Proc of 9th NEUREL 2008*, Editors: Reljin B, Stankovic S, Belgrade, Sept 25-27, 2008. ISBN: 978-1-4244-2903-5, IEEE Catalog Number: CFP08481-PRT, pp. 137-140.
2. **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.
3. **L. Popovic**, N. Maleševic, 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.

4. N. Malešević, **L. Popović**, G. Bijelić, G. Kvaščev, Classification of muscle twitch response using ANN: Application in multi-pad electrode optimization, *Proc of 10th NEUREL*, Belgrade, Serbia, 2010, pp.11-13.
5. E. Rocon, J.A. Gallego, L. Barrios, A.R. Victoria, J. Ibáñez, D. Farina, F. Negro, J. L. Dideriksen, S. Conforto, T. D'Alessio, G. Severini, J.M. Belda-Lois, **L. Z. Popović**, G. Grimaldi, M. Manto, J.L. Pons, Multimodal BCI-mediated FES suppression of pathological tremor. *Proc of 32nd Ann Int Conf of the IEEE, EMBC'10*, art. no. 5627914, pp. 3337-3340
6. J.L. Dideriksen, F. Gianfelici, **L.Z. Popovic-Maneski**, D. Farina, EMG-based demodulation of pathological tremor using the Iterated Hilbert Transform. *Proc of 5th International IEEE/EMBS Conference on Neural Engineering*, Cancun, Mexico, 2011, pp. 116-119, DOI: 10.1109/NER.2011.5910502
7. Velik R, Malesevic N, **Popovic L**, Hoffmann U, Keller T. INTFES: A multi-pad electrode system for selective transcutaneous electrical muscle stimulation. *16th Annual Conference of the International Functional Electrical Stimulation Society*, Sao Paolo, Brazil, 2011, URL: http://ifess.org/proceedings/IFESS2011/IFESS2011_004_Velik.pdf
8. **L. Popović Maneski**, M.B. Popović, "Real time tracking of tremor EMG envelopes", *5th European Conference of the International Federation for Medical and Biological Engineering, IFMBE Proceedings*, pp. 781-783, 2012 Budapest, Hungary, ISBN: 978-3-642-23507-8.
9. **Lana Popović-Maneski**, Marija Janković, Tijana Jevtić, Nebojša Malešević, Milovan Radulović, Miloš Kostić, Goran Bijelić, Thierry Keller, Nikola Jorgovanović, Vojin Ilić, Dejan B. Popović, "Functional electrical stimulation (FES) for augmenting of the reaching and grasping", *IFESS conference*, pp.131-134, San Sebastian, Spain, 6-8 June 2013
10. Marija Stevanović, Minja Perović, Tijana Jevtić, Ilijा Jovanov, Goran Bijelić, Strahinja Došen, Dario Farina, **Lana Popović Maneski**, Dejan Popović, "Electrical stimulation of the forearm: a method for transmitting sensory signals from the artificial hand to the brain", *IFESS conference*, pp.195-198, San Sebastian, Spain, 6-8 June 2013

M34 Саопштење са међународног скупа штампано у изводу:

1. **L. Popović**, N. Malešević, I. Petrović, MB. Popović, Closed-loop tremor attenuation with Functional Electrical Stimulation, *Abstract on ISEK Conference*, Aalborg, Denmark, June 16-19, 2010, ISBN: 978-87-7094-047-4.
2. **L. Popović**, N. Malešević, I. Petrović, MB. Popović, Semi-closed loop tremor attenuation with FES, *Artificial Organs* Vol. 34(8), A31, 2010.

M53 Рад у националном научном часопису:

1. N. Malešević, **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, 2010, DOI: 10.2298/JAC1001053M.
2. M. Perović, M. Stevanović, T. Jevtić, M. Šrbac, G. Bijelić, Č. Vučetić, **L. Popović Maneski** and D.B. Popović, Electrical stimulation of the forearm: a method for transmitting sensory signals from the artificial hand to the brain, *Journal of Automatic Control*, Vol. 21(1), pp.13-18, 2013, DOI: 10.2298/JAC1301013P.

M63 Саопштење са скупа националног значаја штампано у целини:

1. N. Malešević, L. Popović, PRORACUN ELEKTRICNOG POLJA TKIVA PRI STIMULACIJI MATRICNOM ELEKTRODOM, *Proc of 52nd ETRAN*, June 2008, Palić, Serbia, ME1.3.
2. L. Popović, J. Robertson, Estimation of forearm rotation with a “Virtual Stick”, *Proc 53rd ETRAN*, 15-18 June 2009, Vrnjacka Banja, Serbia, ME1.2-1.4.
3. L Popovic-Maneski, T Jevtic, Assessment of hand function with flex sensors. Proc. 56th ETRAN 2012, June 11-14, 2012, Zlatibor, Serbia; ME1.3.

M71 Докторска теза:

1. Лана Поповић Манески, "Систем за супресију тремора у реалном времену помоћу површинске функционалне електричне стимулације", докторска теза, Универзитет у Београду Електротехнички факултет, 2011

Врста и квантификација научно-истраживачких резултата који су настали пре избора у звање научни сарадник

Категорија	Број	Вредност индикатора	Укупна вредност
M21	2	8	16
M22	3	5	15
M23	3	3	9
M33	10	1	10
M34	2	0.5	1
M53	2	1	2
M63	3	0.5	1.5
M71	1	6	6
Укупно			60.5

- научно-истраживачки резултати НАКОН избора у звање научни сарадник-

M14 Монографска студија/поглавље у књизи M12 или рад у тематској области међународног значаја

1. L. Popović-Maneski and A. Žunjić, "Safety and Ergonomic Design Issues of Certain Types of Robots" (chapter 6, pp. 105-122) in A. Žunjić, *Ergonomic Design and Assessment of Products and Systems*, 2017, Nova Science Publishers, ISBN: 978-1-53611-784-4
2. Popović-Maneski, Lana, and Ivan Topalović. "EMG Map for Designing the Electrode Shape for Functional Electrical Therapy of Upper Extremities." *Biosystems & Biorobotics*, Springer International Publishing, 2019, Vol.21, pp.1003-1007, DOI: 10.1007/978-3-030-01845-0_201 (4 autocitata M20)

M21a Рад у међународном часопису изузетних вредности

1. Popović-Maneski L, Aleksić A., Metani A., Bergeron V, Čobeljić R., Popović D.B. "Assessment of spasticity by a pendulum test in SCI patients who exercise FES cycling or receive only conventional therapy". *TNSRE*, 2017, Vol. 26(1), pp. 181-187, DOI: 10.1109/TNSRE.2017.2771466

M22 Рад у истакнутом међународном часопису

1. L. Popović Maneski, I. Topalović, N. Jovičić, S. Dedijer, Lj. Konstantinović, D.B. Popović, "Stimulation map for control of functional grasp based on multi-channel EMG recordings", *Medical Engineering & Physics*, 2016, Vol. 38(11), pp. 1251-1259, <http://dx.doi.org/10.1016/j.medengphy.2016.06.004>
2. E. Krueger, L. Popovic-Maneski, and P. Nohama, "Mechanomyography based wearable monitor of quasi-isometric muscle fatigue for motor neural prostheses", *Artificial Organs*, 2017, Vol. 42(2), pp. 208-218, DOI: 10.1111/aor.12973.
3. Cobeljic, R. D., Ribaric-Jankes, K., Aleksić, A., Popovic-Maneski, L. Z., Schwirtlich, L. B., & Popovic, D. B. (2018). Does galvanic vestibular stimulation decrease spasticity in clinically complete spinal cord injury?. *International Journal of Rehabilitation Research*, 41(3), 251-257 DOI: 10.1097/MRR.0000000000000297

M23 Рад у међународном часопису:

1. Krueger E, Magri LMS, Botelho AS, Bach FS, Rebellato CLK, Fracaro L, Fragoso FYI, Villanova JA, Brofman PRS, Popovic-maneski L, Effects of Low-intensity electrical stimulation and adipose derived stem cells transplantation on the time-domain analysis-based electromyographic signals in dogs with SCI, *Neuroscience Letters* (2018), <https://doi.org/10.1016/j.neulet.2018.12.004> (након нормирања 1.875)

M33 Саопштење са међународног скупа штампано у целини:

1. A Sedmak, D Popović, A Veg, L Popović Maneski, S Kirin, Lj Konstantinović, V Simeunović "Mechatronics in rehabilitation – new master program developed through tempus project huton", ME4 Catalogue, 2015, Slavonski brod, Croatia (након нормирања 0.56)
2. N. Aranđelović, L. Popović-Maneski, "Text messaging fot the visually impaired", *Proceedings of IcETRAN*, June 2015, Srebrno jezero, Serbia, ME1.3
3. D. Popović, L Popovic-Maneski, Robotics for rehabilitation: exoskeletons and prostheses for upper limbs. Proc. 15th IT, Feb 23-28 2015, Žabljak, Montenegro; pp. 1-6 (invited paper), ISBN: 978-86-85775-16-1
4. L Popovic-Maneski, Surface array electrodes for interfacing motor systems: A review and new solutions, *Proc. IcETRAN*, June 12-16, 2016, Zlatibor, Serbia, MEI1.4
5. L. Popović-Maneski, A. Metani, F. Le Jeune and V. Bergeron, „A systematic method to determine customised FES cycling patterns and assess their efficiency “, *Proc of IcETRAN 2017*, BTI2.3. ISBN 978-86-7466-692-0

6. Aleksandar Lazović, **Lana Popović-Maneski** and Ljupčo Hadžievski, „Multi sensor acquisition device for noninvasive detection of heart failure“, *Proc of IcETRAN*, Srebrno jezero, Serbia, 2019
7. **Lana Popović-Maneski**, „MAGNETRODE: magnetic multi-pad electrode for FET”, *Proc of IFESS*, Toronto, Canada, 2019.

M34 Саопштење са међународног скупа штампано у изводу:

1. M Miletic, B Bojovic, **L Popović-Maneski**, Multiparametric biomedical measurements for applications in cardiac disease diagnostic, Ninth Photonics Workshop March 2016, Kopaonik, Serbia, Book of Abstracts, pp.25, ISBN: 868244144-1
2. M Miletic, Marija D. Ivanović, **L Popović-Maneski**, B Bojović. Ejection fraction calculation using multiparametric cardiac measurement system, Tenth Photonics Workshop, March 2017, Kopaonik, Serbia, Book of Abstracts, pp. 31
3. M Miletic, M D Ivanović, **L. Popović Maneski**, B Bojović, Application of multiparametric cardiac measurement system in ejection fraction calculation, PHOTONICA 2017, VI International School and Conference on Photonics, Book of Abstracts, p. 112, Belgrade, Serbia, 2017. ISBN 978-86-82441-46-5
4. **L. Popovic-Maneski**, A. Metani, V. Bergeron, D. Popovic, "Assessing different muscle contributions during FES cycling", *Proc of IFESS*, July 18-22, 2017, pp.28. URL: <https://www.forskningsdatabasen.dk/en/catalog/2392922058>
5. **Popović-Maneski, Lana.** "Functional electrical stimulation for pedaling: the impact of chronic external activation of paralyzed muscles after a spinal cord lesion." Medicinski vjesnik 50.Suppl. 1) (2018): 64-65. ISSN: 0350-6487
6. **Lana Popović-Maneski**, Maxime Blot, Amine Metani, Gaelle Deley „Increasing fitness with FES rowing”, *Proc of IFESS*, Toronto, Canada, 2019.
7. **Lana Popovic-Maneski** and Amine Metani, “FES Cycling in Persons with Paralyzed Legs-Force Feedback for Setup and Control”, 13th Vienna FES workshop, September 23rd-25th, 2019, abstract

M51 Рад у врхунском националном научном часопису:

1. Aleksić, S. Graovac, **L. Popovic-Maneski**, and D.B. Popovic. "The assessment of spasticity: Pendulum test based smart phone movie of passive markers." *Serbian Journal of Electrical Engineering* 15, no. 1 (2018): 29-39. DOI: <https://doi.org/10.2298/SJEE1801029A>

M53 Рад у националном научном часопису:

1. **Popović-Maneski, Lana**, et al. "A new method and instrumentation for analyzing spasticity." *Ieti Transactions on Ergonomics and Safety* 1.1,2017, pp.12-27.
2. A. Metani, **L. Popović-Maneski**, S. Mateo, V. Bergeron, "FES cycling strategies tested during preparation for Cybathlon 2016 - a practical report of team ENS Lyon" *European Journal of Translational Myology*, 2017, 27 (4): pp.279-288.

M62 Предавање по позиву са скупа националног значаја штампано у изводу:

1. **L Popovic-Maneski**, V Bergeron, A Metani and S Mateo, Fes cycling after spinal cord injury., Mini-symposium “Biomechanics and Modelling of Biological Systems”, Project ON 174001 in Mathematical Institute of SANU, Belgrade, Serbia, December 7, 2016, Invited lecture, Book of abstracts, pp.28

M92 Регистрован патент на националном нивоу:

- RS20120291A1 MEASURING DEVICE FOR A GRIP FORCE SPATIAL DISTRIBUTION.
"Уређај за селективно мерење силе и момента силе при хвату", RS 54035 B1 (П-2012/0291). проналазачи: Небојша Малешевић, Дејан Поповић и Лана Поповић Манески. Објављен у гласнику интелектуалне својине 2014-1, ИССН 2217-9143 (online), стр.8.

M94 Објављен патент на националном нивоу:

- RS20150589A1 A DEVICE FOR FUNCTIONAL ELECTRICAL THERAPY, проналазачи: Дејан Поповић и Лана Поповић Манески.
- RS20140436A1 MAGNETIC ELECTRODE FOR SELECTIVE TRANSCUTANEOUS ELECTRICAL STIMULATION, проналазачи: Лана Поповић Манески и Дејан Поповић.

Категорија	Број	Вредност индикатора	Укупна вредност
M14	2	4	8
M21a	1	10	10
M22	3	5	15
M23	1	3	3 (1.875*)
M33	7	1	7 (6.56*)
M34	7	0.5	3.5
M51	1	2	2
M53	2	1.5	3
M62	1	1	1
M92	1	12	12
M94	2	7	14
Укупно			78.5 (76.935*)

*број бодова након нормирања

Испуњење квантитативних захтева за стицање звања виши научни сарадник:

Потребан услов за техничко-технолошке и биотехничке науке	Остварено
Укупно:50	76.935
$M10+M20+M31+M32+M33+M41+M42+M51+M80+M90+M100 \geq 40$	69.435
$M21+M22+M23+M81-83+M90-96+M101-103+M108 \geq 22$	52.875
$M21+M22+M23 \geq 11$	26.875
$M81-83+M90-96+M101-103+M108 \geq 7$	26

ПРИЛОГ 3 – СВЕДОЧАНСТВА О ИСПУЊАВАЊУ КВАЛИТАТИВНИХ КРИТЕРИЈУМА

1. Показатељи успеха у научном раду:

ПРЕДАВАЊА ПО ПОЗИВУ И ОДРЖАНЕ РАДИОНИЦЕ:

Дец. 2016 L Popovic-Maneski, V Bergeron, A Metani and S Mateo, FES cycling after spinal cord injury. „Mini-symposium “Biomechanics and Modelling of Biological Systems”, Project ON 174001 in Mathematical Institute of SANU, Belgrade, Serbia, December 7, 2016, Invited lecture, Book of abstracts, pp.28, ISBN 978-86-7746-630-5



Минисимпозијум „Биомеханика и моделовање биолошких система“
(*Mini-Symposium “Biomechanics and Modelling of Biological Systems”*)
Пројекат ОИ 174001 у Математичком институту САНУ
(Project ON174001 in Mathematical Institute of SASA)
Београд, 7. децембар, 2016. (Belgrade, December 7, 2016)

Уважена др Л. Поповић-Манески,

Обраћам вам се са молбом да у оквиру минисимпозијума

„Биомеханика и моделовање биолошких система“

(*“Biomechanics and Modelling of Biological Systems”*)

који ће се одржати 07.12.2016. године у оквиру обележавања 70 година Математичког института САНУ, одржите предавање под насловом:

ФЕС за бициклизам након повреде кичмене мождине

FES cycling after spinal cord injury

Минисимпозијум ће се одржати у Математичком институту САНУ, Кнеза Михаила 36, Београд, Србија. Сажетци презентованих предавања биће штампани у књизи резимеа.

С изразима посебног поштовања,



Организатор минисимпозијума:

Анђела Хедрих,
др Анђела Хедрих,
Математички институт Српске академије
наука и уметности (МИ САНУ),
Београд, Србија

Сеп. 2017 SSNR летња школа неуро-рехабилитације, Бајона, Шпанија – одржана радионица (орално и практично) о бициклизаму помоћу функционалне електричне стимулације

Јун 2018 „Selective and low fatiguing functional electrical stimulation“, University of California, San Diego, USA

UNIVERSITY OF CALIFORNIA, SAN DIEGO

UCSD

BERKELEY • DAVIS • IRVINE • LOS ANGELES • MERCEDE • RIVERSIDE • SAN DIEGO • SAN FRANCISCO



SANTA BARBARA • SANTA CRUZ

PROFESSOR MIROSLAV KRSTIC
DEPARTMENT OF MECHANICAL AND AEROSPACE ENGINEERING (MAE)
MAIL CODE 0411
9500 GILMAN DRIVE
LA JOLLA, CALIFORNIA 92093-0411

(858) 822-1374
(858) 822-3107 FAX
kristic@ucsd.edu
<http://engineering.ucsd.edu/>

April 2, 2018

Dr. Lana Popović Maneski
Institute of Technical Sciences of SASA
Knez Mihaila 35/IV
11000 Belgrade
Serbia

Dear Dr. Popović Maneski,

I would like to invite you for a visit to the University of California, San Diego, during the period between June 1st and July 5th, 2018. My colleagues at the Center for Control Systems and Dynamics and I would be grateful if you would give a lecture on a topic of your interest and are looking forward to the opportunity for research interactions between you, our faculty, and our doctoral students.

The Center for Control Systems and Dynamics will cover the costs of your travel and accommodation for this trip.

I am excited about the prospect of your visit and am looking forward to hosting you at UC San Diego.

Sincerely,

A handwritten signature in black ink, appearing to read "Miroslav Krstic".

Miroslav Krstic

Distinguished Professor
Sr. Assoc. Vice Chancellor for Research
Daniel L. Alspach Endowed Chair Professor
Director, Cymer Center for Control Systems and Dynamics
Fellow of IEEE, SIAM, ASME, IFAC, AAAS, IET, and Assoc Fellow of AIAA

Јун 2019 Lana Popovic-Maneski, Amine Metani, радионица под насловом „FES cycling for rehabilitation after CNS lesion“. RehabWeek 2019, Toronto, Canada

Сеп. 2019 Dejan Popović & Lana Popović Maneski, радионица под насловом „FES of Upper Extremities (motor neural prostheses)“. 13th Vienna International Workshop on Functional Electrical Stimulation, Vienna, Austria, 2019

Вишегодишњи **рецејзент** научних радова у међународним часописима са СЦИ листе:

1. IEEE Transactions on Neural Systems and Rehabilitation Engineering (IF=3.255),
2. Journal of Electrical & Computer Engineering,
3. Biomedical Signal Processing & Control (IF=1.074),
4. IEEE Sensors, Robotics & Autonomous Systems,
5. PLOS ONE

и на међународним конференцијама:

1. International Conference on NeuroRehabilitation,
2. Neurel,
3. MBEC и друге.

Чланство у уређивачком одбору часописа *Neuroprosthetics- Frontiers*.

The screenshot shows an email in the Gmail inbox. The subject of the email is "Fwd: Complete your Review Editor profile for Neuroprosthetics (specialty section of Frontiers in Neurology and Frontiers in Neuroscience)". The email is from "lana.popovic.maneski@itn.sanu.ac.rs <lana.popovic.maneski@itn.sanu.ac.rs>" and was sent on "Tue, Dec 10, 2019 at 5:31 PM". The recipient is "To: Lana Popovic Maneski <lanapm13@gmail.com>". The body of the email contains instructions for completing the profile, including links to import publications from ORCID and upload them manually, and a link to edit the profile picture. It concludes with a message of thanks and an invitation to contact if any questions arise.

Fwd: Complete your Review Editor profile for Neuroprosthetics (specialty section of Frontiers in Neurology and Frontiers in Neuroscience)

2 messages

Tue, Dec 10, 2019 at 5:31 PM

To: Lana Popovic Maneski <lanapm13@gmail.com>

On Dec 9, 2019, at 16:23, neuroscience@frontiersin.org wrote:

Dear Dr Popovic-Maneski,

Thank you for recently joining the Editorial Board of Neuroprosthetics (specialty section of Frontiers in Neurology and Frontiers in Neuroscience) as a Review Editor. To complete your Frontiers profile, please take action on the following:

- Confirm at least one publication to receive peer review invitations relevant to your expertise. Learn how to either import your publications from your ORCID profile (<https://zendesk.frontiersin.org/hc/en-us/articles/360000769785-How-do-I-link-my-ORCID-ID-to-my-Loop-profile->) or upload them manually (<https://zendesk.frontiersin.org/hc/en-us/articles/360000770145-How-do-I-manually-add-a-publication-to-my-profile->).
- Upload a portrait-style photo to your Loop profile. This will also appear on the section's Editorial Board page and will maximize your visibility. Learn how to edit your profile here: (<https://zendesk.frontiersin.org/hc/en-us/articles/360000772645-How-do-I-add-edit-a-profile-picture->).

We are looking forward to working further with you, feel free to contact us if you have any questions.

Best regards,

Your Frontiers in Neuroscience team

Frontiers | Neuroscience Editorial Office www.frontiersin.org | twitter.com/FrontiersIn Avenue du Tribunal Fédéral 34 1005 Lausanne, Switzerland | T 41(0)21 510 17 11

2. Ангажованост у развоју услова за научни рад, образовање и формирање научних кадрова

Др Лана Поповић Манески се у досадашњем раду претежно бавила научно-истраживачким радом у домену биомедицинског инжењерства и неуронаука и то у доменима развоја нових знања у области моторне контроле и развоја иновативних асистивних система за рехабилитацију особа са компромитованим сензорно-моторним функцијама.

У периоду 2015-2020. године посебну пажњу је посветила и постигла одличне резултате у:

1. унапређењу примене функционалне електричне стимулације за контролу покрета у ручном зглобу и шаци (хватање) код хемиплегичних пацијената;
2. иновацијама за управљање покретима ногу парализованих особа које омогућују вожњу бицикла, стањање и ходање асистирано функционалном електричном стимулацијом;
3. развоју интелигентног интерфејса и система за активацију мишића који спречавају декубитус у особа које привремено или трајно морају да седе у инвалидским колицима;
4. методама и уређајима за квантификовану процену јачине и врсте спасицитета;
5. методама и инструментацији за одређивање параметара хода при ходу у слободном простору, а дају резултате који су по прецизности и поновљивости блиски резултатима које се добијају у специјализованом лабораторија за анализу покрета.

Наведена истраживања су довела до интензивне сарадње са научницима, научно-истраживачким, академским и медицинским институцијама у Европи:

1. Институт за биомеханику (IBV Valencia), Шпанија;
2. Предузеће за производњу инвалидских колица (Qimova), Данска:;
3. Универзитет ENS Lyon, Француска;
4. Лабораторија LISSI Paris Est, Француска
5. Асоцијација ANTS Lyon, Француска
6. Мађарска академија наука, Будимпешта, Мађарска

као и у Србији:

7. Факултет техничких наука у Новом Саду,
8. машински факултет у Београду,
9. Клиника за рехабилитацију "Др Мирослав Зотовић" у Београду,
10. КЦС, сала за катетеризацију,
11. Специјална болница за мишићне и неуромишићне болести, Нови Пазар,
12. Клиника за дечију хабитацију и рехабилитацију (деца са церебралном парализом), Нови Сад,
13. Специјална болница за церебралну парализу и развојну неурологију, Београд

У периоду 2016-2020 је интензивна сарадња са Универзитетом у Лиону у Француској (ENS Lyon) резултовала учешћем на надметању најбољих технолошких решења у рехабилитационој роботици Cybathlon 2016 у Цириху, Швајцарска, у трци адаптираних бицикла за парализоване људе који покрећу педале користећи функционалну електричну стимулацију.

До новембра 2015. је била ангажована у извођењу наставе на машинском факултету Универзитета у Београду на модулу Биомедицинско инжењерство на коме је водила три

предмета (Основе Биомедицинског инжењерства и Биомедицински софтвери на ОАС и Обрада сигнала на MAC).

УНИВЕРЗИТЕТ У БЕОГРАДУ
- МАШИНСКИ ФАКУЛТЕТ -
Број: 1880/1
Датум: 09-10-2013
Београд, Краљице Марије 16

На основу члана 12.2. Статута Машинског факултета Универзитета у Београду,
Наставно-научно веће на седници одржаној 03.10.2013. године, донело је следећу

ОДЛУКУ

Одобрава се др **ЛАНИ ПОПОВИЋ-МАНЕСКИ**, доценту, ангажовање ради извођења
наставе на модулу БМИ из предмета: Биомедицински софтвери (ОАС) и Обрада сигнала
(MAC) у школској 2013/2014 године на Машинском факултету у Београду.

Одлуку доставити: Именованој, Катедри за аутоматско управљање, Продекану за
наставу и Архиви Факултета.



УНИВЕРЗИТЕТ У БЕОГРАДУ
- МАШИНСКИ ФАКУЛТЕТ -
Број: 2202/11
Датум: 13.11.2014. године
Београд, Краљице Марије 16

На основу члана 63. Статута Машинског факултета Универзитета у Београду број 1876/1
од 04.10.2013. године, а у складу са Правилником о давању сагласности за рад
наставника и сарадника Универзитета у Београду у другој високошколској установи од
13.09.2006. године, Наставно-научно веће на седници одржаној 13.11.2014. године,
донело је следећу

ОДЛУКУ

Одобрава се Доцент **Лани Поповић Манески**, Универзитет у Новом Пазару,
департман за техничке науке ангажовање ради извођења наставе из предмета Основе
биомедицинског инжењерства и Клиничко инжењерство на Модулу БМИ, у школској
2014/2015. години на Машинском факултету у Београду.

Одлуку доставити: Именованој, Катедри за аутоматско управљање, Продекану за
наставу, и Архиви Факултета.

На основу члана 63. Статута Машинског факултета Универзитета у Београду број 1876/1
од 04.10.2013. године, а у складу са Правилником о давању сагласности за рад
наставника и сарадника Универзитета у Београду у другој високошколској установи од
13.09.2006. године, Наставно-научно веће на седници одржаној 02.04.2015. године,
донело је следећу

ОДЛУКУ

Одобрава се доцент **Лани Поповић Манески**, Државни Универзитет у Новом Пазару,
департман за техничке науке ангажовање ради извођења наставе на Мастер
академским студијама из предмета Обрада сигнала, на модулу БМИ, у пролећном
семестру у школској 2014/2015. години на Машинском факултету Универзитета у
Београду.

Одлуку доставити: Именованој, Катедри за аутоматско управљање, Продекану за
наставу, и Архиви Факултета.



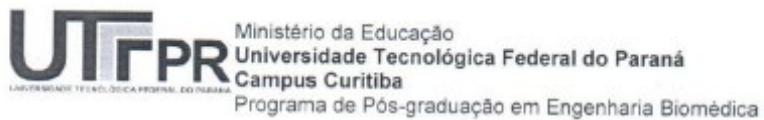
Кандидаткиња је водила израду два успешно одбрањена мастер рада из предмета Основе
биомедицинског инжењерства.

- 1) Мастер рад (ментор) - Милован Паунић, "МРТ и ЦТ скенер као дијагностички
уређаји у медицини", Машински факултет у Београду, Октобар 2015
- 2) Мастер рад (ментор) - Страхиња Николић, "Апарати за анестезију", Машински
факултет у Београду, Новембар 2015

У оквиру ангажовања на Tempus пројекту HUTON (2012-2016) је опремила студентске
лабораторије за биомедицинско инжењерство под називом Мехатроника у рехабилитацији

на Државном универзитету у Новом Пазару и на Машинском факултету Универзитета у Београду.

У августу 2016. године је изабрана за иностраног истраживача-предавача на мастер програму Биомедицинског инжењерства на Универзитету Universidade Tecnológica Federal do Paraná, Curitiba, Brazil



14/16- PPGEB – Mestrado Profissional em Engenharia Biomédica

DECLARATION

Curitiba, August 29th, 2016

For To whom it may concern

Subject: Declaration of External Researcher in Graduate Program in Biomedical Engineering

We, hereby, certify that Lana Popovic Maneski, PhD collaborates as external member in Graduate Program in Biomedical Engineering at Federal University of Technology – Paraná – Brazil, since August 2016.

Best Regards,



Leandra Ulbricht

Prof. Leandra Ulbricht, Dr. Eng.

Coordinator of Graduate Program in Biomedical Engineering

Leandra Ulbricht
Coord. Pós-Grad.
Engenharia Biomédica
UTFPR / DIRPPG / PPGEB

У јулу 2018. године је провела месец дана на Универзитету ENS Lyon у Француској као гостујући професор у лабораторији за физику.

**ÉCOLE
NORMALE
SUPÉRIEURE
DE LYON**

**Yanick Ricard
Vice Président Recherche**

Affaire Suivie par : Mme Marie-Claude STAESSEN MOREAU
Assistante Service Administration de la recherche
+33(0)4 72 72 84 84
Mail : administration.recherche@ens-lyon.fr

Lyon, April 12, 2018

MME POPOVIC-MANESKI Lana
Institute of Technical Sciences of the Serbian
Academy of Sciences and Arts
Knez Mihailova 35/IV
Belgrade
Serbie

Dear colleague,

We are delighted to confirm your invitation as invited professor for the following period:

July 1st to 31st, 2018

In order to best prepare for your stay, please take a look at the Ens de Lyon website for information on visas and accommodation (<http://www.ens-lyon.fr/en/> click Research then Visiting Academics); or directly at the <http://www.espace-ulys.fr/en> website.

If you come for one month or less, you will receive a daily allowance of 130€ which will cover part of your travel and lodging expenses. This sum will be paid upon justification of your arrival and departure dates (preferably plane or train tickets)

We look forward to welcoming you at the Ecole normale supérieure de Lyon,



Yanick RICARD
Vice President, Research of ENS de Lyon



Кандидаткиња је аутор/коаутор четири уџбеника за мастер програм „Мехатроника у рехабилитацији“ који се изводи на Универзитетима у Београду и Новом Саду и на Државном универзитету у Новом Пазару:

- "Сигнали и системи у рехабилитацији" (уџбеник за ТЕМПУС мастер програм "Мехатроника у рехабилитацији"), Лана Поповић-Манески, Бранислава Јефтић; *Академска мисао* 2015, ISBN: 978-86-7466-546-6 и "Сигнали и системи у рехабилитацији – друго промењено и допуњено издање", Лана Поповић-Манески, Бранислава Јефтић, Небојша Малешевић; *Академска мисао* 2015, ISBN: 978-86-7466-794-1
- "Увод и MATLAB и LabVIEW са примерима из биомедицинског инжењерства" (уџбеник за ТЕМПУС мастер програм "Мехатроника у рехабилитацији"), Лана Поповић-Манески, Игор Хут, Бранислава Јефтић, Илија Јованов; *Академска мисао* 2015, ISBN: 978-86-7466-565-7.
- "Методе и инструментација за мерење моторике" (уџбеник за ТЕМПУС мастер програм "Мехатроника у рехабилитацији"), Лана Поповић-Манески, Дејан Поповић; *Академска мисао* 2016, ISBN: 978-86-7466-646-3
- "Сигнали и системи у рехабилитацији – друго издање" (уџбеник за ТЕМПУС мастер програм "Мехатроника у рехабилитацији"), Лана Поповић-Манески, Бранислава Јефтић, Небојша Малешевић; *Академска мисао* 2015, ISBN: 978-86-7466-794-1

Учествовала је у комисијама и била ментор/коментор на мастер и докторским радовима:

- 1) Мастер рад (коментор) –Lidiane Moreira Santos на теми “Alterações motoras em cães com lesão medular submetidos à estimulação elétrica e transplante de células-tronco“ (Побољшање моторне контроле код паса након повреде кичмене мождине применом комбиноване терапије матичним ћелијама и електричне стимулације) на Universidade Tecnológica Federal do Paraná, Curitiba, Brazil током 2016. године

The screenshot shows a web-based application for post-graduate studies at UTFPR. The main menu on the left includes options like 'Pós Stricto Sensu' and 'Stricto - Consultas'. The central panel displays detailed information about a student's profile:

- Dados do Aluno no Programa:**
 - Aluno : 1684213 - Lidiane Moreira Santos
 - Programa : 018 - PPGB - Programa De Pós-Graduação Em Engenharia Biomédica
 - Curso: 269 - Mestrado Profissional
 - Área Concentração : Engenharia Biomédica
 - Linha de Pesquisa : Engenharia Clínica E Gestão
 - Data Matrícula : 02/03/2015 Data Regular : 02/03/2015 Data de Defesa : Entrega Versão --/--/--- Final : --/--/---
 - Crédito(s) completado(s) : 24 Coeficiente: 8,5 Situação : Regular
 - Orientador : Eddy Krueger
 - Co-orientador : Lana Popovic Maneski
- Dados Pessoais:**
 - Filiação Pai: Otacilio Pedro Dos Santos
 - Mãe: Lídia Moreira Santos
 - Data de nascimento: 05/08/1985 CPF: 06785498694 Passaporte: FH509656
- Formação Acadêmica:**
 - Graduação: Fisioterapia
 - Instituição: Centro Universitário De Itajubá Ano: 2008
- Pós-Graduação:**
 - Pós-graduação: Fisioterapia Dermato Funcional Ano: 2012
 - Instituição: Universidade Gama Filho Nível: Especialização
- Disciplinas Cursadas (C-Conceito/FR-Frequência/CR-Crédito):** This section is partially visible at the bottom.

At the bottom of the page, there is a footer note: © 2016 UTFPR - Desenvolvido pela Diretoria de TI.

- 2) Докторска дисертација (члан комисије) – Одлуком 0501 бр. 3/104-8 од 12.07.2017. године именована за члана Комисије за оцену теме и подобности кандидата Желька Гаврића за израду докторске дисертације и научне заснованости теме „Модел интеракције човека и рачунара заснован на праћењу покрета ока“ на ФОН, Београд.
- 3) Научно звање (члан комисије) - на Седници Научног већа одржаној 14.03.2018. године у ИТН-САНУ именована за члана Комисије за избор у научно звање Истраживач сарадник Ивана Топаловића
- 4) Докторска дисертација (члан комисије) – Игор Хут “Неуро-фази алгоритам за добијање оптомагнетичног спектралног дијаграма материјала на основу дигиталне слике и рефлектансне спектроскопије”, Машински факултет, Универзитет у Београду 2019

УНИВЕРЗИТЕТ У БЕОГРАДУ
- МАШИНСКИ ФАКУЛТЕТ –
Број:1270/2
Датум: 11.07.2019. године
Београд, Краљице Марије бр.16

На основу обавештења др Лидије Матије, ред. проф., ментора да је студент Игор Хут, маст. инж. маш., завршио докторску дисертацију “Неуро-фази алгоритам за добијање опто-магнетног спектралног дијаграма материјала на бази дигиталне слике и спектрометрије рефлектансне спектроскопије”, предлога Катедре за биомедицинско инжењерство, а сагласно члану 30. Закона о високом образовању („Службени гласник РС“, број 76/2005, 100/2007 – аутентично тумачење, 97/2008, 93/2012 и 89/2013) и члану 36. Правилника о докторским студијама Машинског факултета, Наставно-научно веће Машинског факултета на седници одржаној дана 11.07.2019. године, донело је следећу

ОДЛУКУ

- др Лидија Матија, ред. проф., ментор
- др Александра Васић-Миловановић, ред. проф.,
- др Александар Седмак, ред. проф.
- др Јарко Ђођашић, ред. проф., Машински факултет Универзитета у Нишу уместо др Радише Јовановића, ванр. проф.
- др Ана Поповић Манески, научни сарадник, Институт техничких наука САНУ

именују се за чланове Комисије за оцену и одбрану докторске дисертације
«НЕУРО-ФАЗИ АЛГОРИТАМ ЗА ДОБИЈАЊЕ ОПТО-МАГНЕТНОГ СПЕКТРАЛНОГ ДИЈАГРАМА МАТЕРИЈАЛА НА БАЗИ ДИГИТАЛНЕ СЛИКЕ И СПЕКТРОМЕТРИЈЕ РЕФЛЕКТАНСЕ» студента ИГОРА ХУТА, маст.инж.маш.

Одлуку доставити: члановима Комисије, студенту и архиви Факултета.



- 5) Приступни рад (члан комисије) - Предраг Величковић „Аспекти интеракције човека и рачунара при коришћењу система виртуелне реалности код различитих карактеристика виртуелног окружења“

- 6) Докторска дисертација (коментор) – Александар Лазовић „Мулти-сензорски систем за неинвазивну детекцију срчане инсуфицијенције“, Универзитет у Београди – Биомедицинско инжењерство и технологије



УНИВЕРЗИТЕТ У БЕОГРАДУ

Студентски трг 1, 11000 Београд, Република Србија
Тел.: 011 3207400; Факс: 011 2638912; Е-mail: officebu@rect.bg.ac.yu

Београд, 15. јула 2019. године
06 Број: 06-4164/IX-4350/3-19
JKJ/

На основу члана 54. став 1. тачка 9. Статута Универзитета у Београд („Гласник Универзитета у Београду”, број 201/18 и 207/19), Веће за студије при Универзитету, на седници одржаној 15. јула 2019. год. доноси

ОДЛУКУ

1. ОДОБРАВА СЕ израда докторске дисертације под насловом: „Мултисензорски систем за неинвазивну детекцију срчане инсуфицијенције“, кандидата Александра Лазовића (докторске студије: Биомедицинско инжењерство и технологије)

2. За менторе се именују:

1) Проф. др Владан Вукчевић, ванредни професор, Медицински факултет Универзитета у Београду (кардиологија)

2) др. Лана Поповић Манески, научни сарадник, Институт техничких наука САНУ (биомедицинско инжењерство)

3. Кандидат може бранити докторску дисертацију најкасније до 30. септембра 2022. год.

4. Предлог се упућује Већу за интердисциплинарне, мултидисциплинарне и трансдисциплинарне студије ради даљег поступања.

ПРЕДСЕДНИК
ВЕЋА ЗА СТУДИЈЕ ПРИ УНИВЕРЗИТЕТУ

Проф. др Јетар Марин

3. Организација научног рада:

У периоду 2015.-2020. др. Лана Поповић Манески је у Институту техничких наука САНУ ангажована на пројекту #III44008, МНТР, „Развој робота као средства за помоћ у превазилажењу тешкоћа у развоју деце“, руководилац: Проф. др Бранислав Боровац.

Поред тога, кандидаткиња је остварила значајну међународну научно-истраживачку и академску сарадњу кроз учешће на више међународних пројеката:

1. **TEMPUS** пројекат број 530510-TEMPUS-1-2012-1-RS-TEMPUS-JPCR **HUTON** (*Assisting humans with special needs: curriculum for HUMAN-TOOL interaction Network*), 2012-2016.

Осим писања предлога пројекта, у оквиру овог програма кандидаткиња је ангажована као представник Државног универзитета у Новом Пазару, координатор свих активности на радном пакету у вези са набавком и обуком рада на истраживачко-наставној опреми намењеној рехабилитацији, и учесник у развоју плана и програма наставних активности у оквиру јединственог мастер програма за Универзитет у Новом Саду, Београду и Новом Пазару под називом "Мехатроника у рехабилитацији".

2. **HEARTBEAM** (мобилни уређај за снимање, обраду и дијагнозу ЕКГ сигнала),

Кандидаткиња је радила на развоју уређаја и сувих електрода за снимање ЕКГ сигнала у сарадњи са предузећем HeartBeam Inc, Калифорнија и групом П* из Института за нуклеарне науке "Винча" у периоду 2015-2018

3. **COST ACTION 16116** "Wearable Robots for Augmentation, Assistance or Substitution of Human Motor Functions", Member Committee substitute & Dissemination and Exploitation Manager

Кандидаткиња је заменик члана управног одбора који представља Србију и менаџер за дисеминацију и експлоатацију

4. Програм билатералне сарадње **Павле Савић #8** 2018-2019 између Србије и Француске (ITS-SASA and ENS de Lyon), "MOTIMOVE: Motivate motor impaired patients to move",

координатори: Lana Popović-Maneski и Amine Metahni. Кандидаткиња је радила на развоју алгоритама за мишићне стимулаторе који омогућавају аутоматски калибрацију стимулације за вожњу бицикла након повреда кичмене маждине и шлога.

5. Програм билатералне сарадње **Павле Савић #8** 2018-2019 између Србије и Француске (SANU and LISSI), "R4S: Robotic Support and functional electrical Stimulation to assist Standing-up".

Кандидаткиња је коаутор на једном прихваћеном патенту:

1. "Уређај за селективно мерење силе и момента силе при хвату", RS 54035 B1 (П-2012/0291). проналазачи: Небојша Малешевић, Дејан Поповић и Лана Поповић Манески. Објављен у гласнику интелектуалне својине 2014-1, ИССН 2217-9143 (online), стр.8.

и две објављене патентне пријаве у Србији:

1. "Уређај за функционалну електричну терапију", [RS20150589A1](#) (П-2015/0589). проналазачи: Лана Поповић Манески и Дејан Поповић. Објављен у гласнику интелектуалне својине 31.07.2017.
2. "Уређај за селективно мерење силе и момента силе при хвату", [RS20140436A1](#) (П-2014/0436). проналазачи: Лана Поповић Манески и Дејан Поповић. Објављен у гласнику интелектуалне својине 31.12.2014.

као и једном „provisional“ патенту у САД:

1. Lana Popovic-Maneski, Dejan Popovic, "Device for measuring motion", filling date 15-DEC-2016, Application Number: 62434438

Кандидаткиња је добитник признања за иновацију проистеклу из рада са студентима на Машинском факултету:

1. Н. Аранђеловић, **Л. Поповић-Манески** (ментор), "Уређај за писање текста и управљање екстерним модулом на који је повезан, без гледања у екран", златна плакета на Интернационалном фестивалу иновација, знања и стваралаштва ТЕСЛА ФЕСТ 2015, Нови Сад, Србија



и технолошке иновације у оквиру предузећа 3F-Fit Fabricando Faber doo:

1. Награда за најбољу технолошку иновацију године АУРЕА 2018, е-капија, за пројекат MOTIMOVE фирме 3F-Fit Fabricando Faber d.o.o.
2. ENECA & Philip Morris nagrada "Pokreni se za posao" 2018 za inovaciju MOTIMOVE
3. Најбоља технолошка иновација у Србији 2018 за производ MOTIMOVE

4. Квалитет научних резултата:

Др Лана Поповић Манески је у протеклих 5 година (од избора у звање научни сарадник) остварила значајне резултате у области биомедицинског инжењерства у доменима обраде биомедицинских сигнала, *wearable* сензорских система, управљања биолошким актуаторима (парализованим или паретичним мишићима) електричном стимулацијом и рехабилитационом инжењерству.

Кандидаткиња је у протеклих пет година објавила 5 радова у међународним часописима са СЦИ листе (од тога један у категорији M21a, три у категорији M22 и један у категорији M23), два рада у иностраним часописима ван СЦИ листе (категорисани као M53), два поглавља у књигамаrenomiranih издавача (M14), један рад у врхунском часопису националног значаја M51, седам радова у тематским зборницима са међународних конференција M33, седам радова са међународних научних конференција штампаних у изводу, и један рад по позиву са скупа националног значаја штампано у изводу (M62).

На 2 од 5 радова у међународним часописима са СЦИ листе кандидаткиња је први аутор, на једном раду је допринос био у поставци технике прикупљања података, развоју уређаја за мерење, мерењу и обради снимљених сигнала, а на два рада са иностраним првим ауторима је допринос био у дискусији резултата, делу статистичке обраде и корекцији енглеског текста. На једном од два рада у међународним часописима ван СЦИ листе је кандидаткиња први аутор а на другом је допринос прва три аутора подједнак док је четврти аутор био главни субјекат студије и коректор написаног текста. На раду у домаћем часопису је допринос у развоју методологије класификације резултата мерења. На 7 од 14 радова у тематским зборницима међународног значаја кандидаткиња је била први аутор.

Четири од 7 радова у међународним часописима је резултат међународних сарадњи и међукоауторима је бар један инострани аутор.

У научноистраживачком раду кандидаткиња је испољила све елементе самосталности и научне зрелости. Све задатке је решавала самостално, од концептуалног решења, хардверске и софтверске подршке, клиничког прикупљања података до клиничког тестирања практичних решења. У научном раду кандидаткиње постоји евидентан континуитет стваралачког деловања. Према референцима по годинама од претходног избора у звање кандидаткиња је објављивала у просеку по један и по рад у часописима са СЦИ листе годишње и по три рада на међународним научним конференцијама. Значајно је да је смањен број публикација крајем 2014. и током 2015. године обзиром да је кандидаткиња у јуну 2013. године имала порођај.

Лана Поповић Манески према *SCOPUS* бази података (25 радова) има 440 цитата, и Хиршов фактор $h=11$ (подаци од 9. феб. 2020).

ПРИЛОГ 4 – ПАТЕНТИ



РЕПУБЛИКА СРБИЈА
ЗАВОД ЗА ИНТЕЛЕКТУАЛНУ СВОЈИНУ

990 број 2013/8038-П-2012/0291
Датум: 07.11.2013. године
Београд, Кнегиње Љубице 5

2-3/3

МАЛЕШЕВИЋ, Небојша
Вишеградска 6, 11000 Београд

ПРЕДМЕТ: ОБАВЕШТЕЊЕ о објави пријаве
број П-2012/0291

У управном поступку по предметној пријави утврђено је да се иста, сходно члану 102. Закона о патентима („Службени гласник РС”, бр. 99/11), може објавити.

У „Гласнику интелектуалне својине” број **1 / 2 0 1 4 2 8 FEB 2014** од **28 FEB 2014** биће објављени следећи подаци о пријави патента:

(51) МКП: **A61B5/22** (2006.01)

(11) Број документа: П-2012/0291

(13) A1

(21) Број пријаве: П-2012/0291

(22) Датум подношења: 13.07.2012.

(61) Број основне пријаве: П-
или патента:

(62) Број првобитне пријаве: П-

(30) Подаци о праву првенства:

(86) Број и датум подношења PCT/
међународне пријаве

(87) Број и датум међународне WO

објаве пријаве

(23) Датум излагања на међународној изложби:

(54) Назив проналаска:

(RS) УРЕЂАЈ ЗА МЕРЕЊЕ ПРОСТОРНЕ РАСПОДЕЛЕ СИЛЕ ПРИ ХВАТУ

(EN)

(19) REPUBLIKA SRBIJA (12) Prijava patenta (11) **P-2015/0589 A1**



ZAVOD ZA
INTELEKTUALNU SVOJINU
B E O G R A D

(51) Int. Cl.

A61N 1/00 (2006.01)
A61F 2/00 (2006.01)
G06F 3/00 (2006.01)

(21) Broj prijave: **P - 2015/0589**
(22) Datum podnošenja prijave: **16.09.2015.**
(43) Datum objavljivanja prijave: **31.07.2017.**

(73) Podnosioci prijave patenta:
**POPOVIĆ, MANESKI, Lana,
Đorda Ognjanovića 4,
11000 Beograd, RS;**
**POPOVIĆ, Dejan, Ruzveltova 44,
11000 Beograd, RS**

(72) Pronalazači:
**POPOVIĆ, MANESKI, Lana;
POPOVIĆ, Dejan**

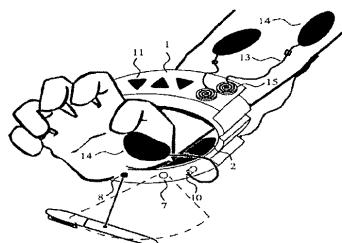
(74) Zastupnik:

(54) Naziv pronalaska: **UREĐAJ ZA FUNKCIONALNU ELEKTRIČNU TERAPIJU**

(57) Apstrakt:

Ovaj sistem ima primenu u terapiji za vežbanje funkcija hvananja kod osoba sa povredama centralnog nervnog sistema. Uredaj za funkcionalnu električnu stimulaciju ruke integriran u narukvicu (1) koja služi kao anoda (2), a uključuje inercijalne senzore (6) koji mere orijentaciju podlaktice, laserski pokazivač (8) koji pokazuje na objekat koji se hvata, video kameru (7) koja snima pokazani objekat i služi da prepozna oblik objekta radi izbora protokola stimulacije koji obezbeđuje optimalnu vrstu hvata (palmarni, lateralni i pincetni) u odnosu na oblik objekta koji se hvata i trenutne orijentacije podlaktice. Na uredaju postoje tasteri (11) za kontrolu uključenja/isključenja i lokalnih parametara (npr. količina elektriciteta stimulusa), a kolo za bežičnu komunikaciju (9) omogućava komunikaciju sa

spoljnim uredajem (tablet, smart telefon ili sl.) na kome se definišu globalni parametri i protokoli stimulacije. Uredaj sadrži standardne konektore (10) za povezivanje sa katodama (14) i kompatibilan je sa postojećim komercijalnim elektrodama.



P-2015/0589 A1



РЕПУБЛИКА СРБИЈА
ЗАВОД ЗА ИНТЕЛЕКТУАЛНУ СВОЈИНУ

990 број 2014/8006-П-2014/0436

Датум: 20.10.2014. године
Београд, Кнегиње Љубице 5

2-3/3

ПОПОВИЋ-МАНЕСКИ, Лана, др.
Ђорђа Огњановића 4, 11000 Београд

ПРЕДМЕТ: ОБАВЕШТЕЊЕ о објави
пријаве број П-2014/0436

У управном поступку по предметној пријави утврђено је да се иста, сходно члану 102. Закона о патентима („Службени гласник РС”, бр. 99/11), може објавити.

У „Гласнику интелектуалне својине“ број 6 / 2014. 31 DEC 2014. од биће објављени следећи подаци о пријави патента:

(51) МКП: A 61 N 1/04 (2006.01)
A 61 B 5/04 (2006.01)

(11) Број документа: П-2014/0436

(13) A1

(21) Број пријаве: П-2014/0436

(22) Датум подношења: 15.08.2014.

(61) Број основне пријаве: П
или патента:

(62) Број првобитне пријаве: П

(30) Подаци о праву првенства:

(86) Број и датум подношења PCT/
међународне пријаве

(87) Број и датум међународне WO
објаве пријаве

(23) Датум излагања на међународној изложби:

(54) Назив проналaska:

(RS) МАГНЕТНА ЕЛЕКТРОДА ЗА СЕЛЕКТИВНУ ТРАНСКУТАНУ ЕЛЕКТРИЧНУ СТИМУЛАЦИЈУ

ПРИЛОГ 5 – ИЗВЕШТАЈ О ЦИТИРАНОСТИ РАДОВА

Izveštaj o citiranosti radova Lane Popović-Maneski

na osnovu baza podataka Web of Science i Scopus, 9. februara 2020.

Ukupno citata: 440

Heterocitata: 329

H-indeks = 11

1. [A multi-pad electrode based functional electrical stimulation system for restoration of grasp](#) By: Malesevic, Nebojsa M.; Maneski, Lana Z. Popovic; Ilic, Vojin; et al. [JOURNAL OF NEUROENGINEERING AND REHABILITATION](#) Volume: 9 Article Number: 66 Published: SEP 25 2012

Heterocitati

1. Chen, K., Zhang, B., Zhang, D., 2014. Master-Slave Gesture Learning System Based on Functional Electrical Stimulation, in: Zhang, X and Liu, H and Chen, Z and Wang, N (Ed.), INTELLIGENT ROBOTICS AND APPLICATIONS, ICIRA 2014, PT I, Lecture Notes in Artificial Intelligence, pp. 214–223.
2. De Marchis, C., Monteiro, T.S., Simon-Martinez, C., Conforto, S., Gharabaghi, A., 2016. Multi-contact functional electrical stimulation for hand opening: electrophysiologically driven identification of the optimal stimulation site. [JOURNAL OF NEUROENGINEERING AND REHABILITATION](#) 13. <https://doi.org/10.1186/s12984-016-0129-6>
3. della Valle, E., Weiland, J.D., 2019. Simultaneous impedance measurements of the Utah electrodes array: A finite element method analysis, in: 2019 9TH INTERNATIONAL IEEE/EMBS CONFERENCE ON NEURAL ENGINEERING (NER), International IEEE EMBS Conference on Neural Engineering. IEEE; EMBS, pp. 819–822.
4. Dhayabarasivam, S.S., Jayanthi, K., 2018. Review on different types of rehabilitation electrical stimulation kit with parameter analysis. [Journal of Computational and Theoretical Nanoscience](#) 15, 2707–2714. <https://doi.org/10.1166/jctn.2018.7575>
5. Dong, W., Wang, Y., Zhou, Y., Bai, Y., Ju, Z., Guo, J., Gu, G., Bai, K., Ouyang, G., Chen, S., Zhang, Q., Huang, Y., 2018. Soft human-machine interfaces: design, sensing and stimulation. [INTERNATIONAL JOURNAL OF INTELLIGENT ROBOTICS AND APPLICATIONS](#) 2, 313–338. <https://doi.org/10.1007/s41315-018-0060-z>
6. Duente, T., Pfeiffer, M., Rohs, M., 2017. Zap++: A 20-Channel Electrical Muscle Stimulation System for Fine-Grained Wearable Force Feedback, in: PROCEEDINGS OF THE 19TH INTERNATIONAL CONFERENCE ON HUMAN-COMPUTER INTERACTION WITH MOBILE DEVICES AND SERVICES (MOBILEHCI '17). <https://doi.org/10.1145/3098279.3098546>
7. Ethier, C., Miller, L.E., 2015. Brain-controlled muscle stimulation for the restoration of motor function. [NEUROBIOLOGY OF DISEASE](#) 83, 180–190. <https://doi.org/10.1016/j.nbd.2014.10.014>
8. Franceschi, M., Seminara, L., Dosen, S., Strbac, M., Valle, M., Farina, D., 2017. A System for Electrotactile Feedback Using Electronic Skin and Flexible Matrix Electrodes: Experimental Evaluation. [IEEE TRANSACTIONS ON HAPTICS](#) 10, 162–172. <https://doi.org/10.1109/TOH.2016.2618377>
9. Franceschi, M., Seminara, L., Pinna, L., Dosen, S., Farina, D., Valle, M., 2015. Preliminary evaluation of the tactile feedback system based on artificial skin and electrotactile stimulation, in: 2015 37TH ANNUAL INTERNATIONAL CONFERENCE OF THE IEEE ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY (EMBC), IEEE Engineering in Medicine and Biology Society Conference Proceedings. IEEE Eng Med & Biol Soc, pp. 4554–4557.
10. Freeman, C., 2016. Robust Control Design for Electrical Stimulation Electrode Arrays, in: 2016 AMERICAN CONTROL CONFERENCE (ACC), Proceedings of the American Control Conference. Amer Automat Control Council, pp. 3964–3969.
11. Freeman, C.T., Yang, K., Tudor, J., Kutlu, M., 2016. Feedback control of electrical stimulation electrode arrays. [MEDICAL ENGINEERING & PHYSICS](#) 38, 1185–1194. <https://doi.org/10.1016/j.medengphy.2016.07.002>
12. Freeman, C., 2016. Control system design for electrical stimulation in upper limb rehabilitation: Modelling, identification and robust performance, [Control System Design for Electrical Stimulation in Upper Limb Rehabilitation: Modelling, Identification and Robust Performance](#). <https://doi.org/10.1007/9783319257068>
13. Gonzalez, E.J., Downey, R.J., Rouse, C.A., Dixon, W.E., 2018. Influence of Elbow Flexion and Stimulation Site on Neuromuscular Electrical Stimulation of the Biceps Brachii. [IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING](#) 26, 904–910. <https://doi.org/10.1109/TNSRE.2018.2807762>
14. Jie, T., Zhiqiang, G., Guodong, F., Yubin, X., Xiuyong, D., Tingting, C., Yang, Z., 2016. The effective stimulating pulse for restoration of blink function in unilateral facial nerve paralysis rabbits, verified by a simple FES system. [EUROPEAN ARCHIVES OF OTO-RHINO-LARYNGOLOGY](#) 273, 2959–2964. <https://doi.org/10.1007/s00405-015-3884-2>

15. Jubeau, M., Le Fur, Y., Duhamel, G., Wegrzyk, J., Confort-Gouny, S., Vilmen, C., Cozzone, P.J., Mattei, J.P., Bendahan, D., Gondin, J., 2015. Localized Metabolic and T-2 Changes Induced by Voluntary and Evoked Contractions. MEDICINE AND SCIENCE IN SPORTS AND EXERCISE 47, 921–930. <https://doi.org/10.1249/MSS.0000000000000491>
16. Kasuya, M., Morishita, S., Jiang, Y., Sugi, M., Yokoi, H., 2017. Development of a search method of electrode patterns for use in electrical stimulation using multichannel surface electrodes for upper limb motor function recovery in patients with paralysis. Transactions of Japanese Society for Medical and Biological Engineering 55, 193–204. <https://doi.org/10.11239/jsmbe.55.193>
17. Knutson, J.S., Chae, J., 2015. Functional electrical stimulation (FES) for upper limb function after stroke, in: Implantable Neuroprostheses for Restoring Function. pp. 307–329. <https://doi.org/10.1016/B978-1-78242-101-6.00014-8>
18. Koutsou, A.D., Moreno, J.C., del Ama, A.J., Rocon, E., Pons, J.L., 2016. Advances in selective activation of muscles for non-invasive motor neuroprostheses. JOURNAL OF NEUROENGINEERING AND REHABILITATION 13. <https://doi.org/10.1186/s12984-016-0165-2>
19. Koutsou, A.D., Summa, S., Nasser, B., Martinez, J.G., Thangaramanujam, M., 2014. Upper limb neuroprostheses: Recent advances and future directions, Biosystems and Biorobotics. https://doi.org/10.1007/978-3-642-38556-8_11
20. Krenn, M., Hofstoetter, U.S., Danner, S.M., Minassian, K., Mayr, W., 2015. Multi-Electrode Array for Transcutaneous Lumbar Posterior Root Stimulation. ARTIFICIAL ORGANS 39, 834–840. <https://doi.org/10.1111/aor.12616>
21. Kutlu, M., Freeman, C.T., Hallewell, E., Hughes, A.-M., Laila, D.S., 2016. Upper-limb stroke rehabilitation using electrode-array based functional electrical stimulation with sensing and control innovations. MEDICAL ENGINEERING & PHYSICS 38, 366–379. <https://doi.org/10.1016/j.medengphy.2016.01.004>
22. Lee, E.K., Kim, M.K., Lee, C.H., 2019. Skin-Mountable Biosensors and Therapeutics: A Review, in: Yamush, M.L. (Ed.), ANNUAL REVIEW OF BIOMEDICAL ENGINEERING, VOL 21, Annual Review of Biomedical Engineering, pp. 299–323. <https://doi.org/10.1146/annurev-bioeng-060418-052315>
23. Loitz, J.C., Reinert, A., Neumann, A.-K., Quandt, F., Schroeder, D., Krautschneider, W.H., 2016. A flexible standalone system with integrated sensor feedback for multi-pad electrode FES of the hand. Current Directions in Biomedical Engineering 2, 391–394. <https://doi.org/10.1515/cdbme-2016-0087>
24. Majumder, S., Mondal, T., Deen, M.J., 2017. Wearable Sensors for Remote Health Monitoring. SENSORS 17. <https://doi.org/10.3390/s17010130>
25. Piazza, S., Gomez-Soriano, J., Bravo-Estebar, E., Torricelli, D., Avila-Martin, G., Galan-Arriero, I., Luis Pons, J., Taylor, J., 2016. Maintenance of cutaneomuscular neuronal excitability after leg-cycling predicts lower limb muscle strength after incomplete spinal cord injury. CLINICAL NEUROPHYSIOLOGY 127, 2402–2409. <https://doi.org/10.1016/j.clinph.2016.03.007>
26. Qian, R.-C., Long, Y.-T., 2018. Wearable Chemosensors: A Review of Recent Progress. CHEMISTRYOPEN 7, 118–130. <https://doi.org/10.1002/open.201700159>
27. Quandt, F., Hummel, F.C., 2014. The influence of functional electrical stimulation on hand motor recovery in stroke patients: A review. Experimental and Translational Stroke Medicine 6. <https://doi.org/10.1186/2040-7378-6-9>
28. Resquin, F., Cuesta Gomez, A., Gonzalez-Vargas, J., Brunetti, F., Torricelli, D., Molina Rueda, F., Cano de la Cuerda, R., Carlos Miangolarra, J., Luis Pons, J., 2016. Hybrid robotic systems for upper limb rehabilitation after stroke: A review. MEDICAL ENGINEERING & PHYSICS 38, 1279–1288. <https://doi.org/10.1016/j.medengphy.2016.09.001>
29. Rouse, C.A., Parikh, A., Duenas, V., Cousin, C., Dixon, W.E., 2016. Compensating for Changing Muscle Geometry of the Biceps Brachii During Neuromuscular Electrical Stimulation: A Switched Systems Approach, in: 2016 IEEE 55TH CONFERENCE ON DECISION AND CONTROL (CDC), IEEE Conference on Decision and Control. IEEE; Soc Ind & Appl Math; Inst Operat Res & Management Sci; Japanese Soc Instrument Control Engineers; European Control Assoc, pp. 1328–1333.
30. Rupp, R., Rohm, M., Schneiders, M., Kreilinger, A., Mueller-Putz, G.R., 2015. Functional Rehabilitation of the Paralyzed Upper Extremity After Spinal Cord Injury by Noninvasive Hybrid Neuroprostheses. PROCEEDINGS OF THE IEEE 103, 954–968. <https://doi.org/10.1109/JPROC.2015.2395253>
31. Rupp, R., 2017. Neuroprosthetics, in: Neurological Aspects of Spinal Cord Injury. pp. 689–720. https://doi.org/10.1007/978-3-319-46293-6_24
32. Salchow, C., Valtin, M., Seel, T., Schauer, T., 2016. A new semi-automatic approach to find suitable virtual electrodes in arrays using an interpolation strategy. EUROPEAN JOURNAL OF TRANSLATIONAL MYOLOGY 26, 134–139.
33. Salchow-Hoemmen, C., Jankowski, N., Valtin, M., Schoenjahn, L., Boettcher, S., Daehne, F., Schauer, T., 2018. User-centered practicability analysis of two identification strategies in electrode arrays for FES induced hand motion in early stroke rehabilitation. JOURNAL OF NEUROENGINEERING AND REHABILITATION 15. <https://doi.org/10.1186/s12984-018-0460-1>
34. Shin, H., Hu, X., 2019. Multichannel Nerve Stimulation for Diverse Activation of Finger Flexors. IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING 27, 2361–2368. <https://doi.org/10.1109/TNSRE.2019.2947785>
35. Shin, H., Hu, X., 2018. Flexibility of Finger Activation Patterns Elicited through Non-invasive Multi-Electrode Nerve Stimulation. Presented at the Proceedings of the Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBS, pp. 1428–1431. <https://doi.org/10.1109/EMBC.2018.8512479>

36. Shin, H., Watkins, Z., Hu, X., 2017. Exploration of Hand Grasp Patterns Elicitable Through Non-Invasive Proximal Nerve Stimulation. SCIENTIFIC REPORTS 7. <https://doi.org/10.1038/s41598-017-16824-1>
37. Shin, H., Zheng, Y., Hu, X., 2018. Variation of Finger Activation Patterns Post-stroke Through Non-invasive Nerve Stimulation. FRONTIERS IN NEUROLOGY 9. <https://doi.org/10.3389/fneur.2018.01101>
38. Simonsen, D., Spaich, E.G., Hansen, J., Andersen, O.K., 2017. Design and Test of a Closed-Loop FES System for Supporting Function of the Hemiparetic Hand Based on Automatic Detection Using the Microsoft Kinect Sensor. IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING 25, 1249–1256. <https://doi.org/10.1109/TNSRE.2016.2622160>
39. Squeri, V., Masia, L., Giannoni, P., Sandini, G., Morasso, P., 2014. Wrist Rehabilitation in Chronic Stroke Patients by Means of Adaptive, Progressive Robot-Aided Therapy. IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING 22, 312–325. <https://doi.org/10.1109/TNSRE.2013.2250521>
40. Stewart, A.M., Pretty, C.G., Adams, M., Chen, X., 2017. Hybrid exoskeletons for upper limb stroke rehabilitation, in: Handbook of Research on Biomimetics and Biomedical Robotics. pp. 76–98. <https://doi.org/10.4018/978-1-5225-2993-4.ch004>
41. Sun, M., Smith, C., Howard, D., Kenney, L., Luckie, H., Waring, K., Taylor, P., Merson, E., Finn, S., 2018. FES-UPP: A Flexible Functional Electrical Stimulation System to Support Upper Limb Functional Activity Practice. FRONTIERS IN NEUROSCIENCE 12. <https://doi.org/10.3389/fnins.2018.00449>
42. Sweeney, D., Quinlan, L.R., OLaighin, G., 2015. Smartphone App Design for the Wireless Control of a Neuromuscular Electrical Stimulator device with Integrated Randomization Allocation Process for RCT Applications, in: 2015 37TH ANNUAL INTERNATIONAL CONFERENCE OF THE IEEE ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY (EMBC), IEEE Engineering in Medicine and Biology Society Conference Proceedings. IEEE Engr Med & Biol Soc, pp. 4574–4577.
43. Thomas, J.R., McDaid, A.J., 2014. Soft robotic monitoring of finger motion during neuromuscular electrical stimulation with varying electrode placements. Presented at the i-CREAtE 2014 - international Convention on Rehabilitation Engineering and Assistive Technology.
44. Tu, X., Han, H., Huang, J., Li, J., Su, C., Jiang, X., He, J., 2017. Upper Limb Rehabilitation Robot Powered by PAMs Cooperates with FES Arrays to Realize Reach-to-Grasp Trainings. JOURNAL OF HEALTHCARE ENGINEERING. <https://doi.org/10.1155/2017/1282934>
45. Uddin, R., Hamzaid, N.A., 2014. A Study Protocol to Compare between Two Configurations of Multi-Pad Electrode Array for Functional Electrical Stimulation-Evoked Cycling among Paraplegics, in: 2014 IEEE 19TH INTERNATIONAL FUNCTIONAL ELECTRICAL STIMULATION SOCIETY ANNUAL CONFERENCE (IFESS). IEEE; Int Funct Elect Simulat Soc.
46. Varoto, R., Cliquet, A., Jr., 2015. Experiencing Functional Electrical Stimulation Roots on Education, and Clinical Developments in Paraplegia and Tetraplegia With Technological Innovation. ARTIFICIAL ORGANS 39, E187–E201. <https://doi.org/10.1111/aor.12620>
47. Venugopalan, L., Taylor, P.N., Cobb, J.E., Swain, I.D., 2015. Upper limb functional electrical stimulation devices and their man-machine interfaces. Journal of Medical Engineering and Technology 39, 471–479. <https://doi.org/10.3109/03091902.2015.1102344>
48. Wang, H., Bi, Z., Zhou, Yang, Zhou, Yu-xuan, Wang, Z., Lv, X., 2017. Real-time and wearable functional electrical stimulation system for volitional hand motor function control using the electromyography bridge method. NEURAL REGENERATION RESEARCH 12, 133–142. <https://doi.org/10.4103/1673-5374.197139>
49. Wang, H.-P., Guo, A.-W., Bi, Z.-Y., Li, F., Lu, X.-Y., Wang, Z.-G., 2017. A Wearable Multi-Pad Electrode Prototype for Selective Functional Electrical Stimulation of Upper Extremities, in: 2017 39TH ANNUAL INTERNATIONAL CONFERENCE OF THE IEEE ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY (EMBC), PROCEEDINGS OF ANNUAL INTERNATIONAL CONFERENCE OF THE IEEE ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY. IEEE Engr Med & Biol Soc; PubMed; MEDLINE; Korean Soc Med & Biol Engn, pp. 714–717.
50. Westerveld, A.J., Schouten, A.C., Veltink, P.H., van der Kooij, H., 2014. Passive Reach and Grasp with Functional Electrical Stimulation and Robotic Arm Support, in: 2014 36TH ANNUAL INTERNATIONAL CONFERENCE OF THE IEEE ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY (EMBC), IEEE Engineering in Medicine and Biology Society Conference Proceedings. IEEE Engr Medicine & Biol Soc, pp. 3085–3089.
51. Westerveld, A.J., Schouten, A.C., Veltink, P.H., van der Kooij, H., 2013. Control of thumb force using surface functional electrical stimulation and muscle load sharing. JOURNAL OF NEUROENGINEERING AND REHABILITATION 10. <https://doi.org/10.1186/1743-0003-10-104>
52. Wang, Y., Xu, Q., 2019. Design of a new wrist rehabilitation robot based on soft fluidic muscle. Presented at the IEEE/ASME International Conference on Advanced Intelligent Mechatronics, AIM, pp. 595–600. <https://doi.org/10.1109/AIM.2019.8868626>
53. Wen, Y., Huang, X., Tu, X., Huang, M., 2013. Functional electrical stimulation array electrode system applied to a wrist rehabilitation robot. Huazhong Keji Daxue Xuebao (Ziran Kexue Ban)/Journal of Huazhong University of Science and Technology (Natural Science Edition) 41, 332-334+342.
54. Yang, K., Freeman, C., Torah, R., Beeby, S., Tudor, J., 2014. Screen printed fabric electrode array for wearable functional electrical stimulation. SENSORS AND ACTUATORS A-PHYSICAL 213, 108–115. <https://doi.org/10.1016/j.sna.2014.03.025>
55. Yang, K., Meadmore, K., Freeman, C., Grabham, N., Hughes, A.-M., Wei, Y., Torah, R., Glanc-Gostkiewicz, M., Beeby, S., Tudor, J., 2018. Development of User-Friendly Wearable Electronic Textiles for Healthcare Applications. SENSORS 18. <https://doi.org/10.3390/s18082410>

56. Zhang, L., Zhou, Z., Li, F., 2019. Evaluation and Validation of the Role of Functional Electrical Stimulation of Bone and Joint Using Musculoskeletal Gait Model. INVESTIGACION CLINICA 60, 411–422.
57. Zheng, Y., Hu, X., 2019. Elicited Finger and Wrist Extension Through Transcutaneous Radial Nerve Stimulation. IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING 27, 1875–1882. <https://doi.org/10.1109/TNSRE.2019.2930669>

Kocitati

58. Crema, A., Malesevic, N., Furfaro, I., Raschella, F., Pedrocchi, A., Micera, S., 2018. A Wearable Multi-Site System for NMES-Based Hand Function Restoration. IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING 26, 428–440. <https://doi.org/10.1109/TNSRE.2017.2703151>
59. Dujovic, S.D., Malesevic, J., Malesevic, N., Vidakovic, A.S., Bijelic, G., Keller, T., Konstantinovic, L., 2017. Novel multi-pad functional electrical stimulation in stroke patients: A single-blind randomized study. NEUROREHABILITATION 41, 791–800. <https://doi.org/10.3233/NRE-172153>
60. Hoffmann, U., Deinhofer, M., Keller, T., 2012. Automatic determination of parameters for multipad functional electrical stimulation: application to hand opening and closing. Conf Proc IEEE Eng Med Biol Soc 2012, 1859–1863. <https://doi.org/10.1109/EMBC.2012.6346314>
61. Ilic, V., Jorgovanovic, N., Antic, A., Moraca, S., Ungureanu, N., 2016. A NOVEL FULLY FAST RECOVERY EMG AMPLIFIER FOR THE CONTROL OF NEURAL PROSTHESIS. TEHNICKI VJESNIK-TECHNICAL GAZETTE 23, 1131–1137. <https://doi.org/10.17559/TV-201507101906>
62. Imatz, E., Irigoyen, E., Valencia, D., Keller, T., 2015. Feasibility of using neuro-fuzzy subject-specific models for Functional Electrical Stimulation induced hand movements. IFAC-PapersOnLine 28, 321–326. <https://doi.org/10.1016/j.ifacol.2015.10.159>
63. Kostic, M.D., Popovic, M.D., Popovic, D.B., 2014. The Robot that Learns from the Therapist How to Assist Stroke Patients, in: Rodic, A and Pisla, D and Bleuler, H (Ed.), NEW TRENDS IN MEDICAL AND SERVICE ROBOTS: CHALLENGES AND SOLUTIONS, Mechanisms and Machine Science. Inst Mihailo Pupin, pp. 17–29. https://doi.org/10.1007/978-3-319-05431-5_2
64. Malesevic, J., Dujovic, S.D., Savic, A.M., Konstantinovic, L., Vidakovic, A., Bijelic, G., Malesevic, N., Keller, T., 2017a. A decision support system for electrode shaping in multi-pad FES foot drop correction. JOURNAL OF NEUROENGINEERING AND REHABILITATION 14. <https://doi.org/10.1186/s12984-017-0275-5>
65. Malesevic, J., Malesevic, N., Bijelic, G., Keller, T., Malesevic, N., Konstantinovic, L., Konstantinovic, L., 2014. Multi-pad stimulation device for treating foot drop: Case study, in: 2014 IEEE 19TH INTERNATIONAL FUNCTIONAL ELECTRICAL STIMULATION SOCIETY ANNUAL CONFERENCE (IFESS). IEEE; Int Funct Elect Simulat Soc.
66. Malesevic, J., Strbac, M., Isakovic, M., Kojic, V., Konstantinovic, L., Vidakovic, A., Dujovic, S.D., Kostic, M., Keller, T., 2017b. Temporal and Spatial Variability of Surface Motor Activation Zones in Hemiplegic Patients During Functional Electrical Stimulation Therapy Sessions. ARTIFICIAL ORGANS 41, E166–E177. <https://doi.org/10.1111/aur.13057>
67. Miljkovic, N., Malesevic, N., Kojic, V., Bijelic, G., Keller, T., Popovic, D.B., 2015. Recording and assessment of evoked potentials with electrode arrays. MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING 53, 857–867. <https://doi.org/10.1007/s11517-015-1292-9>
68. Popović, D.B., 2015. Principles of command and control for neuroprostheses, in: Implantable Neuroprostheses for Restoring Function. pp. 45–58. <https://doi.org/10.1016/B978-1-78242-101-6.00003-3>
69. Popovic, D.B., 2017. CONTROL OF FUNCTIONAL ELECTRICAL STIMULATION FOR RESTORATION OF MOTOR FUNCTION. FACTA UNIVERSITATIS-SERIES ELECTRONICS AND ENERGETICS 30, 295–312. <https://doi.org/10.2298/FUEE1703295P>
70. Popovic, D.B., 2014. Advances in functional electrical stimulation (FES). JOURNAL OF ELECTROMYOGRAPHY AND KINESIOLOGY 24, 795–802. <https://doi.org/10.1016/j.jelekin.2014.09.008>
71. Savic, A.M., Malesevic, N.M., Popovic, M.B., 2014. Feasibility of a Hybrid Brain-Computer Interface for Advanced Functional Electrical Therapy. SCIENTIFIC WORLD JOURNAL. <https://doi.org/10.1155/2014/797128>
72. Strbac, M., Kocovic, S., Markovic, M., Popovic, D.B., 2014. Microsoft Kinect-Based Artificial Perception System for Control of Functional Electrical Stimulation Assisted Grasping. BIOMED RESEARCH INTERNATIONAL. <https://doi.org/10.1155/2014/740469>
73. Strbac, M.D., Popovic, D.B., 2014. Computer Vision with Microsoft Kinect for Control of Functional Electrical Stimulation: ANN Classification of the Grasping Intentions, in: Reljin, B and Stankovic, S (Ed.), 2014 12TH SYMPOSIUM ON NEURAL NETWORK APPLICATIONS IN ELECTRICAL ENGINEERING (NEUREL). CAS Serbia & Montenegro Chapter; IEEE Signal Proc Soc Serbia & Montenegro Chapter; IEEE S&M Sect; dt; ETRAN; TERI engn; SDD ITG; AV COM; HAPEL; bit projekt complete IT solut, pp. 153–156.
74. Topalovic, I., Graovac, S., Popovic, D.B., 2019. EMG map image processing for recognition of fingers movement. JOURNAL OF ELECTROMYOGRAPHY AND KINESIOLOGY 49. <https://doi.org/10.1016/j.jelekin.2019.102364>

Autocitatii

75. Maneski, L.P., Topalovic, I., Jovicic, N., Dedijer, S., Konstantinovic, L., Popovic, D.B., 2016. Stimulation map for control of functional grasp based on multi-channel EMG recordings. MEDICAL ENGINEERING & PHYSICS 38, 1251–1259. <https://doi.org/10.1016/j.medengphy.2016.06.004>

76. Maneski, L.Z.P., Malesevic, N.M., Savic, A.M., Keller, T., Popovic, D.B., 2013. SURFACE-DISTRIBUTED LOW-FREQUENCY ASYNCHRONOUS STIMULATION DELAYS FATIGUE OF STIMULATED MUSCLES. *MUSCLE & NERVE* 48, 930–937. <https://doi.org/10.1002/mus.23840>
77. Popović-Maneski, L., Topalović, I., 2019. EMG Map for Designing the Electrode Shape for Functional Electrical Therapy of Upper Extremities, *Biosystems and Biorobotics*. https://doi.org/10.1007/978-3-030-01845-0_201
78. Popovic-Maneski, L., Kostic, M., Bijelic, G., Keller, T., Mitrovic, S., Konstantinovic, L., Popovic, D.B., 2013. Multi-Pad Electrode for Effective Grasping: Design. *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING* 21, 648–654. <https://doi.org/10.1109/TNSRE.2013.2239662>

2. [Electrical stimulation for the suppression of pathological tremor](#)

By: [Maneski, Lana Popovic](#); [Jorgovanovic, Nikola](#); [Ilic, Vojin](#); et al.

[MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING](#) Volume: 49 Issue: 10 Special Issue: SI Pages: 1187-1193 Published: OCT 2011

Hetrocitati

1. Abbasi, M., Afsharfard, A., 2018. Modeling and experimental study of a hand tremor suppression system. *MECHANISM AND MACHINE THEORY* 126, 189–200. <https://doi.org/10.1016/j.mechmachtheory.2018.04.009>
2. Abbasi, M., Afsharfard, A., Arasteh, R., Safaie, J., 2018. Design of a noninvasive and smart hand tremor attenuation system with active control: a simulation study. *MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING* 56, 1315–1324. <https://doi.org/10.1007/s11517-017-1769-9>
3. Allen, B.C., Charles, S.K., 2019. EFFECT OF GYROSCOPE PARAMETERS ON GYROSCOPIC TREMOR SUPPRESSION IN A SINGLE DEGREE OF FREEDOM. *JOURNAL OF MECHANICS IN MEDICINE AND BIOLOGY* 19. <https://doi.org/10.1142/S0219519419500246>
4. Atashzar, S.F., Shahbazi, M., Samotus, O., Tavakoli, M., Jog, M.S., Patel, R.V., 2016. Characterization of Upper-Limb Pathological Tremors: Application to Design of an Augmented Haptic Rehabilitation System. *IEEE JOURNAL OF SELECTED TOPICS IN SIGNAL PROCESSING* 10, 888–903. <https://doi.org/10.1109/JSTSP.2016.2530632>
5. Ayana, E.K., Yasar, C.F., Engin, S.N., 2019. Studies on a Robotic Device that Minimizes End-Point Vibrations for Parkinson Tremor. Presented at the Procedia Computer Science, pp. 338–345. <https://doi.org/10.1016/j.procs.2019.09.060>
6. Bo, A.P.L., Azevedo-Coste, C., Geny, C., Poignet, P., Fattal, C., 2014. On the Use of Fixed-Intensity Functional Electrical Stimulation for Attenuating Essential Tremor. *ARTIFICIAL ORGANS* 38, 984–991. <https://doi.org/10.1111/aor.12261>
7. Buki, E., Katz, R., Zackenhouse, M., Schlesinger, I., 2018. Vib-bracelet: a passive absorber for attenuating forearm tremor. *MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING* 56, 923–930. <https://doi.org/10.1007/s11517-017-1742-7>
8. Caba, V., Borgese, L., Agnelli, S., Depero, L.E., 2019. A green and simple process to develop conductive polyurethane foams for biomedical applications. *INTERNATIONAL JOURNAL OF POLYMERIC MATERIALS AND POLYMERIC BIOMATERIALS* 68, 126–133. <https://doi.org/10.1080/00914037.2018.1525732>
9. Castrillo-Fraile, V., Casas Pena, E., Gabriel y Galan, J.M.T., Delgado-Lopez, P.D., Collazo, C., Cubo, E., 2019. Tremor Control Devices for Essential Tremor: A Systematic Literature Review. *TREMOR AND OTHER HYPERKINETIC MOVEMENTS* 9. <https://doi.org/10.7916/tohm.v0.688>
10. Chalah, M.A., Lefaucheur, J.-P., Ayache, S.S., 2015. Non-invasive Central and Peripheral Stimulation: New Hope for Essential Tremor? *FRONTIERS IN NEUROSCIENCE* 9. <https://doi.org/10.3389/fnins.2015.00440>
11. Corie, T.H., Charles, S.K., 2019. Simulated Tremor Propagation in the Upper Limb: From Muscle Activity to Joint Displacement. *JOURNAL OF BIOMECHANICAL ENGINEERING-TRANSACTIONS OF THE ASME* 141. <https://doi.org/10.1115/1.4043442>
12. Felipe Ruiz-Olaya, A., Lopez-Delis, A., Cerquera, A., 2015. Toward an Upper-Limb Neurorehabilitation Platform Based on FES-Assisted Bilateral Movement: Decoding User's Intentionality, in: Vicente, JMF and AlvarezSanchez, JR and Lopez, FD and ToledoMoreo, FJ and Adeli, H (Ed.), *ARTIFICIAL COMPUTATION IN BIOLOGY AND MEDICINE, PT I (IWINAC 2015)*, Lecture Notes in Computer Science. Spanish CYTED; Red Nacl Computac Nat Artificial & Apliquem Microones 21 s 1, pp. 143–152. https://doi.org/10.1007/978-3-319-18914-7_15
13. Gallego, J.A., Rocon, E., Belda-Lois, J.M., Pons, J.L., 2014. Closed-loop modulation of a notch-filter stimulation strategy for tremor management with a neuroprosthesis. Presented at the IFMBE Proceedings, pp. 1747–1750. https://doi.org/10.1007/978-3-319-00846-2_431
14. Gao, Y., Wang, S., Zhao, J., Cai, H., 2013. Estimation of Pathological Tremor by Using Adaptive Shifting BMFLC Based on RLS Algorithm, in: 2013 IEEE INTERNATIONAL CONFERENCE ON MECHATRONICS AND AUTOMATION (ICMA). IEEE; IEEE Robot & Automat Soc; Kagawa Univ; Harbin Inst Technol, State Key Lab Robot & Syst; Robot Soc Japan; Japan Soc Mech Engineers; Japan Soc Precis Engn; Soc Instrument & Control Engineers; Beijing Inst Technol; Harbin Engn Univ; Univ Electro Commun; Univ Elect Sci & Technol China; Changchun Univ Sci & Technol; Tianjin Univ Technol, pp. 569–574.
15. Garcia, N., Sabater-Navarro, J.M., Gugliemeli, E., Casals, A., 2011. Trends in rehabilitation robotics. *MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING* 49, 1089–1091. <https://doi.org/10.1007/s11517-011-0836-x>

16. García-Guadarrama, R., Martínez-Méndez, R., 2020. Design of a Portable Electric-Stimulation System to Reduce the Essential Tremor on the Hand. Presented at the IFMBE Proceedings, pp. 1178–1183.
https://doi.org/10.1007/978-3-030-30648-9_153
17. Ghassab, V.K., Mohammadi, A., Atashzar, S.F., Patel, R.V., 2018. MULTIPLE-MODEL AND REDUCED-ORDER KALMAN FILTERING FOR PATHOLOGICAL HAND TREMOR EXTRACTION, in: 2018 IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH AND SIGNAL PROCESSING (ICASSP). Inst Elect & Elect Engineers; Inst Elect & Elect Engineers Signal Proc Soc, pp. 940–944.
18. Ghassab, V.K., Mohammadi, A., Atashzar, S.F., Patel, R.V., 2017. DYNAMIC ESTIMATION STRATEGY FOR E-BMFLC FILTERS IN ANALYZING PATHOLOGICAL HAND TREMORS, in: 2017 IEEE GLOBAL CONFERENCE ON SIGNAL AND INFORMATION PROCESSING (GLOBALSIP 2017), IEEE Global Conference on Signal and Information Processing. Inst Elect & Elect Engineers; Inst Elect & Elect Engineers Signal Proc Soc; Mathworks; Nat Sci & Engr Res Council Canada, pp. 437–441.
19. Goffredo, M., Schmid, M., Conforto, S., Bilotti, F., Palma, C., Vigni, L., D'Alessio, T., 2014. A two-step model to optimise transcutaneous electrical stimulation of the human upper arm. COMPEL-THE INTERNATIONAL JOURNAL FOR COMPUTATION AND MATHEMATICS IN ELECTRICAL AND ELECTRONIC ENGINEERING 33, 1329–1345. <https://doi.org/10.1108/COMPEL-04-2013-0118>
20. Hao, M.-Z., Xu, S.-Q., Hu, Z.-X., Xu, F.-L., Niu, C.-X.M., Xiao, Q., Lan, N., 2017. Inhibition of Parkinsonian tremor with cutaneous afferent evoked by transcutaneous electrical nerve stimulation. JOURNAL OF NEUROENGINEERING AND REHABILITATION 14. <https://doi.org/10.1186/s12984-017-0286-2>
21. Heo, J.-H., Jeon, H.-M., Choi, E.-B., Kwon, D.-Y., Eom, G.-M., 2018. Continuous sensory electrical stimulation for the suppression of parkinsonian rest tremor. Journal of Mechanics in Medicine and Biology 18. <https://doi.org/10.1142/S0219519418400067>
22. Heo, J.-H., Kim, J.-W., Kwon, Y., Lee, S.-K., Eom, G.-M., Kwon, D.-Y., Lee, C.-N., Park, K.-W., Manto, M., 2015. Sensory electrical stimulation for suppression of postural tremor in patients with essential tremor. BIO-MEDICAL MATERIALS AND ENGINEERING 26, S803–S809. <https://doi.org/10.3233/BME-151372>
23. Heo, J.-H., Kwon, Y., Jeon, H.-M., Kwon, D.-Y., Lee, C.-N., Park, K.-W., Manto, M., Kim, J.-W., Eom, G.-M., 2016. Suppression of action tremor by sensory electrical stimulation in patients with essential tremor. Journal of Mechanics in Medicine and Biology 16. <https://doi.org/10.1142/S0219519416400261>
24. Herrnstadt, G., McKeown, M.J., Menon, C., 2019. Controlling a motorized orthosis to follow elbow volitional movement: Tests with individuals with pathological tremor. Journal of NeuroEngineering and Rehabilitation 16. <https://doi.org/10.1186/s12984-019-0484-1>
25. Herrnstadt, G., Menon, C., 2016a. Admittance-Based Voluntary-Driven Motion With Speed-Controlled Tremor Rejection. IEEE-ASME TRANSACTIONS ON MECHATRONICS 21, 2108–2119. <https://doi.org/10.1109/TMECH.2016.2555811>
26. Herrnstadt, G., Menon, C., 2016b. Voluntary-Driven Elbow Orthosis with Speed-Controlled Tremor Suppression. FRONTIERS IN BIOENGINEERING AND BIOTECHNOLOGY 4. <https://doi.org/10.3389/fbioe.2016.00029>
27. Hu, Z., Xu, S., Hao, M., Xiao, Q., Lan, N., 2019. The impact of evoked cutaneous afferents on voluntary reaching movement in patients with Parkinson's disease. JOURNAL OF NEURAL ENGINEERING 16. <https://doi.org/10.1088/1741-2552/ab186f>
28. Huen, D., Liu, J., Lo, B., 2016. An integrated wearable robot for tremor suppression with context aware sensing. Presented at the BSN 2016 - 13th Annual Body Sensor Networks Conference, pp. 312–317. <https://doi.org/10.1109/BSN.2016.7516280>
29. Istenič, R., Divjak, M., Holobar, A., 2011. On detection of pathological tremor in electroencephalograms. Presented at the 2011 19th Telecommunications Forum, TELFOR 2011 - Proceedings of Papers, pp. 35–38. <https://doi.org/10.1109/TELFOR.2011.6143886>
30. Jitkritsadakul, O., Jagota, P., Bhidayasiri, R., 2016. Pathophysiology of parkinsonian tremor: a focused narrative review. ASIAN BIOMEDICINE 10, S15–S22. <https://doi.org/10.5372/1905-7415.1000.517>
31. Jitkritsadakul, O., Thanawattano, C., Anan, C., Bhidayasiri, R., 2017. Tremor's glove-an innovative electrical muscle stimulation therapy for intractable tremor in Parkinson's disease: A randomized sham-controlled trial. JOURNAL OF THE NEUROLOGICAL SCIENCES 381, 331–340. <https://doi.org/10.1016/j.jns.2017.08.3246>
32. Jitkritsadakul, O., Thanawattano, C., Anan, C., Bhidayasiri, R., 2015. Exploring the effect of electrical muscle stimulation as a novel treatment of intractable tremor in Parkinson's disease. JOURNAL OF THE NEUROLOGICAL SCIENCES 358, 146–152. <https://doi.org/10.1016/j.jns.2015.08.1527>
33. Katz, R., Buki, E., Zackenhouse, M., 2017. Attenuating Tremor Using Passive Devices, in: Cudd, P and De Witte, L (Ed.), HARNESSING THE POWER OF TECHNOLOGY TO IMPROVE LIVES, Studies in Health Technology and Informatics. Assoc Advancement Assist Technol Europe, pp. 741–747. <https://doi.org/10.3233/978-1-61499-798-6-741>
34. Kobravi, H.R., Ali, S.H., Vatandoust, M., Marvi, R., 2016. Prediction of the wrist joint position during a postural tremor using neural oscillators and an adaptive controller. Journal of Medical Signals and Sensors 6, 117–127.
35. Koutsou, A.D., Summa, S., Nasser, B., Martinez, J.G., Thangaramanujam, M., 2014. Upper limb neuroprostheses: Recent advances and future directions, Biosystems and Biorobotics. https://doi.org/10.1007/978-3-642-38556-8_11
36. Kraus, P.H., 2013. Instrumentation: Classical and emerging techniques, in: Mechanisms and Emerging Therapies in Tremor Disorders. pp. 341–370. https://doi.org/10.1007/978-1-4614-4027-7_19
37. Lambrecht, S., Gallego, J.A., Rocon, E., Pons, J.L., 2014. Automatic real-time monitoring and assessment of tremor parameters in the upper limb from orientation data. FRONTIERS IN NEUROSCIENCE 8. <https://doi.org/10.3389/fnins.2014.00221>

38. Ly, K., Cloutier, A., Yang, J., 2016. Quantitative motor assessment, detection, and suppression of Parkinson's disease hand tremor: A literature review. Presented at the Proceedings of the ASME Design Engineering Technical Conference. <https://doi.org/10.1115/DETC2016-59095>
39. Mengüç, E.C., 2019. Adaptive Fourier linear combiner based on modified least mean Kurtosis algorithm for the processing of sinusoidal signals. Transactions of the Institute of Measurement and Control. <https://doi.org/10.1177/0142331219889171>
40. Menguc, E.C., Rezayi, N., 2019. Estimation of pathological hand tremor signals by fourier linear combiner based online censoring LMS algorithm. Presented at the 27th Signal Processing and Communications Applications Conference, SIU 2019. <https://doi.org/10.1109/SIU.2019.8806387>
41. Murphy, M.D., Guggenmos, D.J., Bundy, D.T., Nudo, R.J., 2016. Current Challenges Facing the Translation of Brain Computer Interfaces from Preclinical Trials to Use in Human Patients. FRONTIERS IN CELLULAR NEUROSCIENCE 9. <https://doi.org/10.3389/fncel.2015.00497>
42. Pinheiro, W.C., Bittencourt, B.E., Luiz, L.B., Marcello, L.A., Antonio, V.F., de Lira, P.H.A., Stolf, R.G., Castro, M.C.F., 2017. Parkinson's Disease Tremor Suppression A Double Approach Study - Part 1, in: Peixoto, N and Fred, A and Gamboa, H and Vaz, M (Ed.), PROCEEDINGS OF THE 10TH INTERNATIONAL JOINT CONFERENCE ON BIOMEDICAL ENGINEERING SYSTEMS AND TECHNOLOGIES, VOL 1: BIODEVICES. pp. 149–155. <https://doi.org/10.5220/0006152501490155>
43. Popov, N.S., Dozic, D.J., Stankovic, M., Krajosi, G.M., Stanisic, D., 2015. Development of a Closed Loop FES System Based on NARX Radial Based Network, in: Jobbagy, A (Ed.), FIRST EUROPEAN BIOMEDICAL ENGINEERING CONFERENCE FOR YOUNG INVESTIGATORS, IFMBE Proceedings. Int Federat Med & Biol Engn, pp. 70–74. https://doi.org/10.1007/978-981-287-573-0_18
44. Puttaraksa, G., Muceli, S., Alvaro Gallego, J., Holobar, A., Charles, S.K., Pons, J.L., Farina, D., 2019. Voluntary and tremorogenic inputs to motor neuron pools of agonist/antagonist muscles in essential tremor patients. JOURNAL OF NEUROPHYSIOLOGY 122, 2043–2053. <https://doi.org/10.1152/jn.00407.2019>
45. Rahimi, F., Debicki, D., Roberts-South, A., Bee, C., Bapat, P., Jog, M., 2015. Dynamic Decomposition of Motion in Essential and Parkinsonian Tremor. CANADIAN JOURNAL OF NEUROLOGICAL SCIENCES 42, 116–124. <https://doi.org/10.1017/cjn.2015.12>
46. Ruiz-Olaya, A.F., Delis, A.L., 2014. Emerging technologies for neuro-rehabilitation after stroke: Robotic exoskeletons and active FES-assisted therapy, in: Assistive Technologies for Physical and Cognitive Disabilities. pp. 1–21. <https://doi.org/10.4018/978-1-4666-7373-1.ch001>
47. Shah, A., Coste, J., Lemaire, J.-J., Taub, E., Schupbach, W.M.M., Pollo, C., Schkommodau, E., Guzman, R., Hemm-Ode, S., 2017. Intraoperative acceleration measurements to quantify improvement in tremor during deep brain stimulation surgery. MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING 55, 845–858. <https://doi.org/10.1007/s11517-016-1559-9>
48. Shah, V.V., Goyal, S., Palanthandalam-Madapusi, H.J., 2017. A Possible Explanation of How High-Frequency Deep Brain Stimulation Suppresses Low-Frequency Tremors in Parkinson's Disease. IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING 25, 2498–2508. <https://doi.org/10.1109/TNSRE.2017.2746623>
49. Shahalebi, S., Mohammadi, A., Atashzar, S.F., Patel, R.V., 2017. A MULTI-RATE AND AUTO-ADJUSTABLE WAVELET DECOMPOSITION FRAMEWORK FOR PATHOLOGICAL HAND TREMOR EXTRACTION, in: 2017 IEEE GLOBAL CONFERENCE ON SIGNAL AND INFORMATION PROCESSING (GLOBALSIP 2017), IEEE Global Conference on Signal and Information Processing. Inst Elect & Elect Engineers; Inst Elect & Elect Engineers Signal Proc Soc; Mathworks; Natl Sci & Engn Res Council Canada, pp. 432–436.
50. Taheri, B., Case, D., Richer, E., 2015. Adaptive Suppression of Severe Pathological Tremor by Torque Estimation Method. IEEE-ASME TRANSACTIONS ON MECHATRONICS 20, 717–727. <https://doi.org/10.1109/TMECH.2014.2317948>
51. Tatinati, S., Veluvolu, K.C., 2013. Multi-step Tremor Prediction Autoregressive (AR) model and Kalman filter (KF) for Surgical Robotic Applications, in: 2013 INTERNATIONAL CONFERENCE ON POWER, ENERGY AND CONTROL (ICPEC). IEEE; PSNA Coll Engn & Technol, Dept Elect & Elect Engn; IEEE Power & Energy Soc; Electron Devices Soc; IET; SIEMENS; Natl Instruments; IEEE Madras Sect, pp. 473–477.
52. Teodorescu, H.-N., 2015. Model of an adaptive energy harvester with electro-rheological fluid. Proceedings of the Romanian Academy Series A - Mathematics Physics Technical Sciences Information Science 16, 110–117.
53. Wang, S., Gao, Y., Xiao, F., Xin, W., Zhao, J., 2015. Analysis and Simulation of the Neural Oscillator for Tremor Suppression by FES, in: 2015 IEEE INTERNATIONAL CONFERENCE ON ROBOTICS AND BIOMIMETICS (ROBIO). IEEE; IEEE ROBOT AUTOMA SOC; SHENZHEN ACAD ROBOT; GUANGDONG UNIV TECHNOL; MICHIGAN STATE UNIV; IT CHIBA AC; RSJ; SICE; JSME; IEEE/CAA J AUTOMATICA SINICA; UNIV HONG KONG, pp. 680–685.
54. Wang, S., Gao, Y., Zhao, J., Cai, H., 2014. Adaptive sliding bandlimited multiple fourier linear combiner for estimation of pathological tremor. BIOMEDICAL SIGNAL PROCESSING AND CONTROL 10, 260–274. <https://doi.org/10.1016/j.bspc.2013.10.004>
55. Xu, F.L., Hao, M.Z., Xu, S.Q., Hu, Z.X., Xiao, Q., Lan, N., 2016. Development of a Closed-Loop System for Tremor Suppression in Patients with Parkinson's Disease, in: Patton, J and Barbieri, R and Ji, J and Jabbari, E and Dokos, S and Mukkamala, R and Guiraud, D and Jovanov, E and Dhaher, Y and Panescu, D and Vangils, M and Wheeler, B and Dhawan, AP (Ed.), 2016 38TH ANNUAL INTERNATIONAL CONFERENCE OF THE IEEE ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY (EMBC), IEEE Engineering in Medicine and Biology Society Conference Proceedings. IEEE Engr Med & Biol Soc, pp. 1782–1785.

56. Zhou, Y., Jenkins, M.E., Naish, M.D., Trejos, A.L., 2018a. Characterization of parkinsonian hand tremor and validation of a high-order tremor estimator. *IEEE Transactions on Neural Systems and Rehabilitation Engineering* 26, 1823–1834. <https://doi.org/10.1109/TNSRE.2018.2859793>
57. Zhou, Y., Jenkins, M.E., Naish, M.D., Trejos, A.L., 2018b. Impact of suppressed tremor: Is suppression of proximal joints sufficient? Presented at the 2018 IEEE EMBS International Conference on Biomedical and Health Informatics, BHI 2018, pp. 58–61. <https://doi.org/10.1109/BHI.2018.8333369>
58. Zhou, Yue, Naish, M.D., Jenkins, M.E., Trejos, A.L., 2018. Development and Validation of a Finger Tremor Simulator, in: 2018 IEEE CANADIAN CONFERENCE ON ELECTRICAL & COMPUTER ENGINEERING (CCECE), Canadian Conference on Electrical and Computer Engineering.

Kocitati

59. Dideriksen, J.L., Laine, C.M., Dosen, S., Muceli, S., Rocon, E., Pons, J.L., Benito-Leon, J., Farina, D., 2017. Electrical stimulation of afferent pathways for the suppression of pathological tremor. *Frontiers in Neuroscience* 11. <https://doi.org/10.3389/fnins.2017.00178>
60. Dosen, S., Dideriksen, J.L., Rocon, E., Pons, J.L., Farina, D., 2013. Tremor suppression using electromyography and surface sensory electrical stimulation, *Biosystems and Biorobotics*. https://doi.org/10.1007/978-3-642-34546-3_87
61. Dosen, S., Muceli, S., Dideriksen, J.L., Pablo Romero, J., Rocon, E., Pons, J., Farina, D., 2015. Online Tremor Suppression Using Electromyography and Low-Level Electrical Stimulation. *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING* 23, 385–395. <https://doi.org/10.1109/TNSRE.2014.2328296>
62. Ilić, V., Jorgovanović, N., Antić, A., Morača, S., Ungureanu, N., 2016. A novel fully fast recovery EMG amplifier for the control of neural prosthesis. *Tehnicki Vjesnik* 23, 1131–1137. <https://doi.org/10.17559/TV-20150710101906>

Autocitatii

63. Malesevic, N.M., Maneski, L.Z.P., Ilic, V., Jorgovanovic, N., Bijelic, G., Keller, T., Popovic, D.B., 2012. A multi-pad electrode based functional electrical stimulation system for restoration of grasp. *JOURNAL OF NEUROENGINEERING AND REHABILITATION* 9. <https://doi.org/10.1186/1743-0003-9-66>

3. DISTRIBUTED LOW-FREQUENCY FUNCTIONAL ELECTRICAL STIMULATION DELAYS MUSCLE FATIGUE COMPARED TO CONVENTIONAL STIMULATION

By: Malesevic, Nebojsa M.; Popovic, Lana Z.; Schwirtlich, Laszlo; et al.

MUSCLE & NERVE Volume: 42 Issue: 4 Pages: 556-562 Published: OCT 2010

Heterocitatii

1. Barss, T.S., Ainsley, E.N., Claveria-Gonzalez, F.C., Luu, M.J., Miller, D.J., Wiest, M.J., Collins, D.F., 2018. Utilizing Physiological Principles of Motor Unit Recruitment to Reduce Fatigability of Electrically-Evoked Contractions: A Narrative Review. *ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION* 99, 779–791. <https://doi.org/10.1016/j.apmr.2017.08.478>
2. Bergquist, A.J., Babbar, V., Ali, S., Popovic, M.R., Masani, K., 2017a. FATIGUE REDUCTION DURING AGGREGATED AND DISTRIBUTED SEQUENTIAL STIMULATION. *MUSCLE & NERVE* 56, 271–281. <https://doi.org/10.1002/mus.25465>
3. Bergquist, A.J., Wiest, M.J., Okuma, Y., Collins, D.F., 2017b. Interleaved neuromuscular electrical stimulation after spinal cord injury. *MUSCLE & NERVE* 56, 989–993. <https://doi.org/10.1002/mus.25634>
4. Bickel, C.S., Gregory, C.M., Dean, J.C., 2011. Motor unit recruitment during neuromuscular electrical stimulation: a critical appraisal. *EUROPEAN JOURNAL OF APPLIED PHYSIOLOGY* 111, 2399–2407. <https://doi.org/10.1007/s00421-011-2128-4>
5. Botter, A., Oprandi, G., Lanfranco, F., Allasia, S., Maffiuletti, N.A., Minetto, M.A., 2011. Atlas of the muscle motor points for the lower limb: implications for electrical stimulation procedures and electrode positioning. *EUROPEAN JOURNAL OF APPLIED PHYSIOLOGY* 111, 2461–2471. <https://doi.org/10.1007/s00421-011-2093-y>
6. Bouri, M., Selfslagh, A., Campos, D., Yonamine, S., Donati, A.R.C., Shokur, S., 2018. Closed-Loop Functional Electrical Stimulation for Gait Training for Patients with Paraplegia, in: 2018 IEEE INTERNATIONAL CONFERENCE ON ROBOTICS AND BIOMIMETICS (ROBIO). IEEE; IEEE Robot & Automat Soc; Shenzhen Hans Robot Co Ltd; Guangdong Univ Technol; Guangzhou Univ; Guangdong Inst Intelligent Mfg; Foshan Biowin Robot & Automat Co Ltd, pp. 1489–1495.
7. Buckmire, A.J., Arakeri, T.J., Reinhard, J.P., Fuglevand, A.J., 2018a. Mitigation of excessive fatigue associated with functional electrical stimulation. *JOURNAL OF NEURAL ENGINEERING* 15. <https://doi.org/10.1088/1741-2552/aae1c>
8. Buckmire, A.J., Lockwood, D.R., Doane, C.J., Fuglevand, A.J., 2018b. Distributed stimulation increases force elicited with functional electrical stimulation. *JOURNAL OF NEURAL ENGINEERING* 15. <https://doi.org/10.1088/1741-2552/aa9820>
9. Chalah, M.A., Lefaucheur, J.-P., Ayache, S.S., 2015. Non-invasive Central and Peripheral Stimulation: New Hope for Essential Tremor? *FRONTIERS IN NEUROSCIENCE* 9. <https://doi.org/10.3389/fnins.2015.00440>

10. del-Ama, A.J., Gil-Agudo, A., Pons, J.L., Moreno, J.C., 2014. Hybrid FES-robot cooperative control of ambulatory gait rehabilitation exoskeleton. *JOURNAL OF NEUROENGINEERING AND REHABILITATION* 11. <https://doi.org/10.1186/1743-0003-11-27>
11. Dideriksen, J.L., Muceli, S., Dosen, S., Laine, C.M., Farina, D., 2015. Physiological recruitment of motor units by high-frequency electrical stimulation of afferent pathways. *JOURNAL OF APPLIED PHYSIOLOGY* 118, 365–376. <https://doi.org/10.1152/japplphysiol.00327.2014>
12. Doucet, B.M., Griffin, L., 2013. High- Versus Low-Frequency Stimulation Effects on Fine Motor Control in Chronic Hemiplegia: A Pilot Study. *TOPICS IN STROKE REHABILITATION* 20, 299–307. <https://doi.org/10.1310/tsr2004-299>
13. Downey, R., Kamalapurkar, R., Fischer, N., Dixon, W., 2015. Compensating for fatigue-induced time-varying delayed muscle response in neuromuscular electrical stimulation control, in: *Recent Results on Nonlinear Delay Control Systems: In Honor of Miroslav Krstic*. pp. 143–161. https://doi.org/10.1007/978-3-319-18072-4_7
14. Downey, R.J., Bellman, M.J., Kawai, H., Gregory, C.M., Dixon, W.E., 2015a. Comparing the Induced Muscle Fatigue Between Asynchronous and Synchronous Electrical Stimulation in Able-Bodied and Spinal Cord Injured Populations. *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING* 23, 964–972. <https://doi.org/10.1109/TNSRE.2014.2364735>
15. Downey, R.J., Cheng, T.-H., Bellman, M.J., Dixon, W.E., 2017. Switched Tracking Control of the Lower Limb During Asynchronous Neuromuscular Electrical Stimulation: Theory and Experiments. *IEEE TRANSACTIONS ON CYBERNETICS* 47, 1251–1262. <https://doi.org/10.1109/TCYB.2016.2543699>
16. Downey, R.J., Cheng, T.-H., Bellman, M.J., Dixon, W.E., 2015b. Closed-Loop Asynchronous Neuromuscular Electrical Stimulation Prolongs Functional Movements in the Lower Body. *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING* 23, 1117–1127. <https://doi.org/10.1109/TNSRE.2015.2427658>
17. Downey, R.J., Cheng, T.-H., Bellman, M.J., Dixon, W.E., 2015c. Switched Tracking Control of a Human Limb during Asynchronous Neuromuscular Electrical Stimulation, in: *2015 AMERICAN CONTROL CONFERENCE (ACC)*, Proceedings of the American Control Conference. Amer Automat Control Council; IFAC; Adapts Inc; Altair; dSPACE; Eaton Corp; Elsevier; Int Journal Automat & Comp; Journal Franklin Inst; Plexim Inc; Soc Ind & Appl Math; Springer; CRC Press Taylor & Francis Grp Cogent OA; United Technologies Res Ctr; Wiley; Boeing; Ford Motor Co; GE Global Res; Honeywell; MathWorks; Mitsubishi Elect Res Lab; Quanser, pp. 4504–4508.
18. Downey, R.J., Cheng, T.-H., Dixon, W.E., 2013. Tracking Control of a Human Limb during Asynchronous Neuromuscular Electrical Stimulation, in: *2013 IEEE 52ND ANNUAL CONFERENCE ON DECISION AND CONTROL (CDC)*, IEEE Conference on Decision and Control. Honeywell; MathWorks; Springer; Taylor & Francis; Univ Trieste; Elsevier; GE Global Res; Natl Instruments; PendCon; Soc Ind & Appl Math; Wolfram; Journal Franklin Inst; United Technologies Res Ctr; Danieli Automat, pp. 139–144.
19. Downey, R.J., Tate, M., Kawai, H., Dixon, W.E., 2014. COMPARING THE FORCE RIPPLE DURING ASYNCHRONOUS AND CONVENTIONAL STIMULATION. *MUSCLE & NERVE* 50, 549–555. <https://doi.org/10.1002/mus.24186>
20. Frankel, M.A., Dowden, B.R., Mathews, V.J., Normann, R.A., Clark, G.A., Meek, S.G., 2011. Multiple-Input Single-Output Closed-Loop Isometric Force Control Using Asynchronous Intrafascicular Multi-Electrode Stimulation. *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING* 19, 325–332. <https://doi.org/10.1109/TNSRE.2011.2123920>
21. Gobbo, M., Maffuletti, N.A., Orizio, C., Minetto, M.A., 2014. Muscle motor point identification is essential for optimizing neuromuscular electrical stimulation use. *JOURNAL OF NEUROENGINEERING AND REHABILITATION* 11. <https://doi.org/10.1186/1743-0003-11-17>
22. Gonzalez, E.J., Downey, R.J., Rouse, C.A., Dixon, W.E., 2018. Influence of Elbow Flexion and Stimulation Site on Neuromuscular Electrical Stimulation of the Biceps Brachii. *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING* 26, 904–910. <https://doi.org/10.1109/TNSRE.2018.2807762>
23. Ibitoye, M.O., Hamzaid, N.A., Hasnan, N., Wahab, A.K.A., Davis, G.M., 2016. Strategies for Rapid Muscle Fatigue Reduction during FES Exercise in Individuals with Spinal Cord Injury: A Systematic Review. *PLOS ONE* 11. <https://doi.org/10.1371/journal.pone.0149024>
24. Imatz Ojanguren, E., Kostic, M., Chia Bejarano, N., Keller, T., 2016. Workshop on transcutaneous functional electrical stimulation, Biosystems and Biorobotics. https://doi.org/10.1007/978-3-319-24901-8_11
25. Imatz-Ojanguren, E., Sanchez-Marquez, G., Ramon Asiain-Aristu, J., Cueto-Mendo, J., Jaunarena-Goicoechea, E., Zabaleta, H., Keller, T., 2019. A foot drop compensation device based on surface multi-field functional electrical stimulation-Usability study in a clinical environment. *JOURNAL OF REHABILITATION AND ASSISTIVE TECHNOLOGIES ENGINEERING* 6. <https://doi.org/10.1177/2055668319862141>
26. Koutsou, A.D., Moreno, J.C., del Ama, A.J., Rocon, E., Pons, J.L., 2016. Advances in selective activation of muscles for non-invasive motor neuroprostheses. *JOURNAL OF NEUROENGINEERING AND REHABILITATION* 13. <https://doi.org/10.1186/s12984-016-0165-2>
27. Laubacher, M., Aksoez, E.A., Brust, A.K., Baumberger, M., Riener, R., Binder-Macleod, S., Hunt, K.J., 2019. Stimulation of paralysed quadriceps muscles with sequentially and spatially distributed electrodes during dynamic knee extension. *JOURNAL OF NEUROENGINEERING AND REHABILITATION* 16. <https://doi.org/10.1186/s12984-018-0471-y>
28. Laubacher, M., Aksoz, A.E., Riener, R., Binder-Macleod, S., Hunt, K.J., 2017. Power output and fatigue properties using spatially distributed sequential stimulation in a dynamic knee extension task. *EUROPEAN JOURNAL OF APPLIED PHYSIOLOGY* 117, 1787–1798. <https://doi.org/10.1007/s00421-017-3675-0>

29. Li, Y., Alam, M., Guo, S., Ting, K.H., He, J., 2014. Electronic bypass of spinal lesions: activation of lower motor neurons directly driven by cortical neural signals. *JOURNAL OF NEUROENGINEERING AND REHABILITATION* 11. <https://doi.org/10.1186/1743-0003-11-107>
30. Loitz, J.C., Reinert, A., Neumann, A.-K., Quandt, F., Schroeder, D., Krautschneider, W.H., 2016. A flexible standalone system with integrated sensor feedback for multi-pad electrode FES of the hand. *Current Directions in Biomedical Engineering* 2, 391–394. <https://doi.org/10.1515/cdbme-2016-0087>
31. Maffiuletti, N.A., Minetto, M.A., Farina, D., Bottinelli, R., 2011. Electrical stimulation for neuromuscular testing and training: state-of-the art and unresolved issues. *EUROPEAN JOURNAL OF APPLIED PHYSIOLOGY* 111, 2391–2397. <https://doi.org/10.1007/s00421-011-2133-7>
32. Maffiuletti, N.A., Vivodtzev, I., Minetto, M.A., Place, N., 2014. A new paradigm of neuromuscular electrical stimulation for the quadriceps femoris muscle. *EUROPEAN JOURNAL OF APPLIED PHYSIOLOGY* 114, 1197–1205. <https://doi.org/10.1007/s00421-014-2849-2>
33. Orand, A., Tanimoto, G., Miyasaka, H., Takeda, K., Sonoda, S., 2016. Programmable multi-pattern wide frequency range electrical stimulator. *Journal of Electrical Engineering* 16.
34. Rongsawad, K., Ratanapinunchai, J., 2018. Effects of Very High Stimulation Frequency and Wide-Pulse Duration on Stimulated Force and Fatigue of Quadriceps in Healthy Participants. *ANNALS OF REHABILITATION MEDICINE-ARM* 42, 250–259. <https://doi.org/10.5535/arm.2018.42.2.250>
35. Ruslee, R., Miller, J., Gollee, H., 2019. Investigation of different stimulation patterns with doublet pulses to reduce muscle fatigue. *JOURNAL OF REHABILITATION AND ASSISTIVE TECHNOLOGIES ENGINEERING* 6. <https://doi.org/10.1177/2055668319825808>
36. Sayenko, D.G., Nguyen, R., Hirabayashi, T., Popovic, M.R., Masani, K., 2015. Method to Reduce Muscle Fatigue During Transcutaneous Neuromuscular Electrical Stimulation in Major Knee and Ankle Muscle Groups. *NEUROREHABILITATION AND NEURAL REPAIR* 29, 722–733. <https://doi.org/10.1177/1545968314565463>
37. Sayenko, D.G., Nguyen, R., Popovic, M.R., Masani, K., 2014. Reducing muscle fatigue during transcutaneous neuromuscular electrical stimulation by spatially and sequentially distributing electrical stimulation sources. *EUROPEAN JOURNAL OF APPLIED PHYSIOLOGY* 114, 793–804. <https://doi.org/10.1007/s00421-013-2807-4>
38. Sayenko, D.G., Popovic, M.R., Masani, K., 2013. Spatially Distributed Sequential Stimulation Reduces Muscle Fatigue during Neuromuscular Electrical Stimulation, in: 2013 35TH ANNUAL INTERNATIONAL CONFERENCE OF THE IEEE ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY (EMBC), IEEE Engineering in Medicine and Biology Society Conference Proceedings. IEEE Engr Med Biol Soc; Japanese Soc Med & Biol Engn, pp. 3614–3617.
39. Selfslagh, A., Shokur, S., Campos, D.S.F., Donati, A.R.C., Almeida, S., Yamauti, S.Y., Coelho, D.B., Bouri, M., Nicolelis, M.A.L., 2019. Non-invasive, Brain-controlled Functional Electrical Stimulation for Locomotion Rehabilitation in Individuals with Paraplegia. *SCIENTIFIC REPORTS* 9. <https://doi.org/10.1038/s41598-019-43041-9>
40. Uddin, R., Hamzaid, N.A., 2014. A Study Protocol to Compare between Two Configurations of Multi-Pad Electrode Array for Functional Electrical Stimulation-Evoked Cycling among Paraplegics, in: 2014 IEEE 19TH INTERNATIONAL FUNCTIONAL ELECTRICAL STIMULATION SOCIETY ANNUAL CONFERENCE (IFESS). IEEE; Int Funct Elect Simulat Soc.
41. Vinil, T.C., Devasahayam, S., Tharion, G., Naveen, B.P., 2014. Investigation of controllable multi electrode based FES (functional electrical stimulation) system for restoration of grasp-preliminary study on healthy individuals. Presented at the 2014 IEEE Global Humanitarian Technology Conference - South Asia Satellite, GHTC-SAS 2014, pp. 212–215. <https://doi.org/10.1109/GHTC-SAS.2014.6967585>
42. Vivodtzev, D., Galera, O., 2012. Electrostimulation: Materials and procedures. *Revue des Maladies Respiratoires Actualites* 4, 304–306. [https://doi.org/10.1016/S1877-1203\(12\)70253-7](https://doi.org/10.1016/S1877-1203(12)70253-7)
43. Wiest, M.J., Bergquist, A.J., Heffernan, M.G., Popovic, M., Masani, K., 2019. Fatigue and Discomfort During Spatially Distributed Sequential Stimulation of Tibialis Anterior. *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING* 27, 1566–1573. <https://doi.org/10.1109/TNSRE.2019.2923117>
44. Zheng, Y., Hu, X., 2019. Elicited Finger and Wrist Extension Through Transcutaneous Radial Nerve Stimulation. *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING* 27, 1875–1882. <https://doi.org/10.1109/TNSRE.2019.2930669>
45. Zheng, Y., Hu, X., 2018a. Improved muscle activation using proximal nerve stimulation with subthreshold current pulses at kilohertz-frequency. *JOURNAL OF NEURAL ENGINEERING* 15. <https://doi.org/10.1088/1741-2552/aab90f>
46. Zheng, Y., Hu, X., 2018b. Reduced muscle fatigue using kilohertz-frequency subthreshold stimulation of the proximal nerve. *JOURNAL OF NEURAL ENGINEERING* 15. <https://doi.org/10.1088/1741-2552/aadec>
47. Zheng, Y., Shin, H., Hu, X., 2018. Muscle Fatigue Post-stroke Elicited From Kilohertz-Frequency Subthreshold Nerve Stimulation. *FRONTIERS IN NEUROLOGY* 9. <https://doi.org/10.3389/fneur.2018.01061>

Kocitati

48. Crema, A., Guanziroli, E., Malesevic, N., Colombo, M., Liberali, D., Proserpio, D., Bijelic, G., Keller, T., Molteni, F., Micera, S., 2017. Helping Hand grasp rehabilitation: preliminary assessment on chronic stroke patients, in: 2017 8TH INTERNATIONAL IEEE/EMBS CONFERENCE ON NEURAL ENGINEERING (NER), International IEEE EMBS Conference on Neural Engineering. IEEE; EMBS, pp. 146–149.

49. Crema, A., Malesevic, N., Furfaro, I., Raschella, F., Pedrocchi, A., Micera, S., 2018. A Wearable Multi-Site System for NMES-Based Hand Function Restoration. *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING* 26, 428–440. <https://doi.org/10.1109/TNSRE.2017.2703151>
50. Malesevic, J., Dujovic, S.D., Savic, A.M., Konstantinovic, L., Vidakovic, A., Bijelic, G., Malesevic, N., Keller, T., 2017a. A decision support system for electrode shaping in multi-pad FES foot drop correction. *JOURNAL OF NEUROENGINEERING AND REHABILITATION* 14. <https://doi.org/10.1186/s12984-017-0275-5>
51. Malesevic, J., Strbac, M., Isakovic, M., Kojic, V., Konstantinovic, L., Vidakovic, A., Dujovic, S.D., Kostic, M., Keller, T., 2017b. Temporal and Spatial Variability of Surface Motor Activation Zones in Hemiplegic Patients During Functional Electrical Stimulation Therapy Sessions. *ARTIFICIAL ORGANS* 41, E166–E177. <https://doi.org/10.1111/aor.13057>
52. Popovic, D.B., 2014. Advances in functional electrical stimulation (FES). *JOURNAL OF ELECTROMYOGRAPHY AND KINESIOLOGY* 24, 795–802. <https://doi.org/10.1016/j.jelekin.2014.09.008>
53. Popovic, D.B., Popovic, M.B., 2011. Advances in the use of electrical stimulation for the recovery of motor function, in: Schouenborg, J and Garwicz, M and Danielsen, N (Ed.), *BRAIN MACHINE INTERFACES: IMPLICATIONS FOR SCIENCE, CLINICAL PRACTICE AND SOCIETY, Progress in Brain Research*. pp. 215–225. <https://doi.org/10.1016/B978-0-444-53815-4.00005-4>
54. Strbac, M., Kocovic, S., Markovic, M., Popovic, D.B., 2014. Microsoft Kinect-Based Artificial Perception System for Control of Functional Electrical Stimulation Assisted Grasping. *BIOMED RESEARCH INTERNATIONAL*. <https://doi.org/10.1155/2014/740469>

Autocitatii

55. Krueger, E., Popovic-Maneski, L., Nohama, P., 2018. Mechanomyography-Based Wearable Monitor of Quasi-Isometric Muscle Fatigue for Motor Neural Prostheses. *ARTIFICIAL ORGANS* 42, 208–218. <https://doi.org/10.1111/aor.12973>
56. Malesevic, N.M., Maneski, L.Z.P., Ilic, V., Jorgovanovic, N., Bijelic, G., Keller, T., Popovic, D.B., 2012. A multi-pad electrode based functional electrical stimulation system for restoration of grasp. *JOURNAL OF NEUROENGINEERING AND REHABILITATION* 9. <https://doi.org/10.1186/1743-0003-9-66>
57. Maneski, L.P., Jorgovanovic, N., Ilic, V., Dosen, S., Keller, T., Popovic, M.B., Popovic, D.B., 2011. Electrical stimulation for the suppression of pathological tremor. *MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING* 49, 1187–1193. <https://doi.org/10.1007/s11517-011-0803-6>
58. Maneski, L.Z.P., Malesevic, N.M., Savic, A.M., Keller, T., Popovic, D.B., 2013. SURFACE-DISTRIBUTED LOW-FREQUENCY ASYNCHRONOUS STIMULATION DELAYS FATIGUE OF STIMULATED MUSCLES. *MUSCLE & NERVE* 48, 930–937. <https://doi.org/10.1002/mus.23840>
59. Metani, A., Popovic-Maneski, L., Mateo, S., Lemahieu, L., Bergeron, V., 2017. Functional electrical stimulation cycling strategies tested during preparation for the First Cybathlon Competition - a practical report from team ENS de Lyon. *EUROPEAN JOURNAL OF TRANSLATIONAL MYOLOGY* 27, 279–288. <https://doi.org/10.4081/ejtm.2017.7110>
60. Popović Maneski, L., Topalović, I., Jovičić, N., Dedijer, S., Konstantinović, L., Popović, D.B., 2016. Stimulation map for control of functional grasp based on multi-channel EMG recordings. *Medical Engineering and Physics* 38, 1251–1259. <https://doi.org/10.1016/j.medengphy.2016.06.004>
61. Popovic-Maneski, L., Kostic, M., Bijelic, G., Keller, T., Mitrović, S., Konstantinovic, L., Popovic, D.B., 2013. Multi-Pad Electrode for Effective Grasping: Design. *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING* 21, 648–654. <https://doi.org/10.1109/TNSRE.2013.2239662>

4. SURFACE-DISTRIBUTED LOW-FREQUENCY ASYNCHRONOUS STIMULATION DELAYS FATIGUE OF STIMULATED MUSCLES

By: Maneski, Lana Z. Popovic; Malesevic, Nebojsa M.; Savic, Andrej M.; et al.
MUSCLE & NERVE Volume: 48 Issue: 6 Pages: 930-937 Published: DEC 2013

Heterocitatii

1. Bergquist, A.J., Babbar, V., Ali, S., Popovic, M.R., Masani, K., 2017. Fatigue reduction during aggregated and distributed sequential stimulation. *Muscle and Nerve* 56, 271–281. <https://doi.org/10.1002/mus.25465>
2. Bergquist, Austin J., Wiest, M.J., Okuma, Y., Collins, D.F., 2017. Interleaved neuromuscular electrical stimulation after spinal cord injury. *MUSCLE & NERVE* 56, 989–993. <https://doi.org/10.1002/mus.25634>
3. Buckmire, A.J., Arakeri, T.J., Reinhard, J.P., Fuglevand, A.J., 2018a. Mitigation of excessive fatigue associated with functional electrical stimulation. *JOURNAL OF NEURAL ENGINEERING* 15. <https://doi.org/10.1088/1741-2552/aae1c>
4. Buckmire, A.J., Lockwood, D.R., Doane, C.J., Fuglevand, A.J., 2018b. Distributed stimulation increases force elicited with functional electrical stimulation. *JOURNAL OF NEURAL ENGINEERING* 15. <https://doi.org/10.1088/1741-2552/aa9820>
5. Downey, R., Kamalapurkar, R., Fischer, N., Dixon, W., 2015. Compensating for fatigue-induced time-varying delayed muscle response in neuromuscular electrical stimulation control, in: *Recent Results on Nonlinear Delay Control Systems: In Honor of Miroslav Krstic*. pp. 143–161. https://doi.org/10.1007/978-3-319-18072-4_7
6. Downey, R.J., Bellman, M.J., Kawai, H., Gregory, C.M., Dixon, W.E., 2015a. Comparing the Induced Muscle Fatigue Between Asynchronous and Synchronous Electrical Stimulation in Able-Bodied and Spinal Cord Injured

- Populations. *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING* 23, 964–972. <https://doi.org/10.1109/TNSRE.2014.2364735>
7. Downey, R.J., Cheng, T.-H., Bellman, M.J., Dixon, W.E., 2017. Switched Tracking Control of the Lower Limb During Asynchronous Neuromuscular Electrical Stimulation: Theory and Experiments. *IEEE TRANSACTIONS ON CYBERNETICS* 47, 1251–1262. <https://doi.org/10.1109/TCYB.2016.2543699>
 8. Downey, R.J., Cheng, T.-H., Bellman, M.J., Dixon, W.E., 2015b. Closed-Loop Asynchronous Neuromuscular Electrical Stimulation Prolongs Functional Movements in the Lower Body. *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING* 23, 1117–1127. <https://doi.org/10.1109/TNSRE.2015.2427658>
 9. Downey, R.J., Cheng, T.-H., Bellman, M.J., Dixon, W.E., 2015c. Switched Tracking Control of a Human Limb during Asynchronous Neuromuscular Electrical Stimulation, in: 2015 AMERICAN CONTROL CONFERENCE (ACC), Proceedings of the American Control Conference. Amer Automat Control Council; IFAC; Adapties Inc; Altair; dSPACE; Eaton Corp; Elsevier; Int Journal Automat & Comp; Journal Franklin Inst; Plexim Inc; Soc Ind & Appl Math; Springer; CRC Press Taylor & Francis Grp Cogent OA; United Technologies Res Ctr; Wiley; Boeing; Ford Motor Co; GE Global Res; Honeywell; MathWorks; Mitsubishi Elect Res Lab; Quanser, pp. 4504–4508.
 10. Downey, R.J., Tate, M., Kawai, H., Dixon, W.E., 2014. Comparing the force ripple during asynchronous and conventional stimulation. *Muscle and Nerve* 50, 549–555. <https://doi.org/10.1002/mus.24186>
 11. Hu, X., Suresh, N.L., Xue, C., Rymer, W.Z., 2015. Extracting extensor digitorum communis activation patterns using high-density surface electromyography. *FRONTIERS IN PHYSIOLOGY* 6. <https://doi.org/10.3389/fphys.2015.00279>
 12. Koutsou, A.D., Moreno, J.C., del Ama, A.J., Rocon, E., Pons, J.L., 2016. Advances in selective activation of muscles for non-invasive motor neurom prostheses. *JOURNAL OF NEUROENGINEERING AND REHABILITATION* 13. <https://doi.org/10.1186/s12984-016-0165-2>
 13. Matsui, T., Iwata, M., Endo, Y., Shitara, N., Hojo, S., Fukuoka, H., Hara, K., Kawaguchi, H., 2019. Effect of intensive inpatient physical therapy on whole-body indefinite symptoms in patients with whiplash-associated disorders. *BMC MUSCULOSKELETAL DISORDERS* 20. <https://doi.org/10.1186/s12891-019-2621-1>
 14. Nataraj, R., Audu, M.L., Triolo, R.J., 2017. Restoring standing capabilities with feedback control of functional neuromuscular stimulation following spinal cord injury. *MEDICAL ENGINEERING & PHYSICS* 42, 13–25. <https://doi.org/10.1016/j.medengphy.2017.01.023>
 15. Ruslee, R., Miller, J., Gollee, H., 2019. Investigation of different stimulation patterns with doublet pulses to reduce muscle fatigue. *JOURNAL OF REHABILITATION AND ASSISTIVE TECHNOLOGIES ENGINEERING* 6. <https://doi.org/10.1177/2055668319825808>
 16. Salchow-Hömmen, C., Jankowski, N., Valtin, M., Schönijahn, L., Böttcher, S., Dähne, F., Schauer, T., 2018a. User-centered practicability analysis of two identification strategies in electrode arrays for FES induced hand motion in early stroke rehabilitation. *Journal of NeuroEngineering and Rehabilitation* 15. <https://doi.org/10.1186/s12984-018-0460-1>
 17. Salchow-Hömmen, C., Thomas, T., Valtin, M., Schauer, T., 2018b. Automatic control of grasping strength for functional electrical stimulation in forearm movements via electrode arrays. *At-Automatisierungstechnik* 66, 1027–1036. <https://doi.org/10.1515/auto-2018-0068>
 18. Sayenko, D.G., Nguyen, R., Hirabayashi, T., Popovic, M.R., Masani, K., 2015. Method to Reduce Muscle Fatigue During Transcutaneous Neuromuscular Electrical Stimulation in Major Knee and Ankle Muscle Groups. *NEUROREHABILITATION AND NEURAL REPAIR* 29, 722–733. <https://doi.org/10.1177/1545968314565463>
 19. Shin, H., Chen, R., Hu, X., 2018a. Delayed fatigue in finger flexion forces through transcutaneous nerve stimulation. *JOURNAL OF NEURAL ENGINEERING* 15. <https://doi.org/10.1088/1741-2552/aadd1b>
 20. Shin, H., Watkins, Z., Hu, X., 2017. Exploration of Hand Grasp Patterns Elicitable Through Non-Invasive Proximal Nerve Stimulation. *SCIENTIFIC REPORTS* 7. <https://doi.org/10.1038/s41598-017-16824-1>
 21. Shin, H., Zheng, Y., Hu, X., 2018b. Variation of Finger Activation Patterns Post-stroke Through Non-invasive Nerve Stimulation. *FRONTIERS IN NEUROLOGY* 9. <https://doi.org/10.3389/fneur.2018.01101>
 22. Uddin, R., Hamzaid, N.A., 2014. A Study Protocol to Compare between Two Configurations of Multi-Pad Electrode Array for Functional Electrical Stimulation-Evoked Cycling among Paraplegics, in: 2014 IEEE 19TH INTERNATIONAL FUNCTIONAL ELECTRICAL STIMULATION SOCIETY ANNUAL CONFERENCE (IFESS). IEEE; Int Funct Elect Simulat Soc.
 23. Wang, K., Sun, Z., 2019. A Virtual Technology Aiding for Hand-Impaired Persons. Presented at the Proceedings - International Joint Conference on Information, Media and Engineering, ICIME 2018, pp. 240–243. <https://doi.org/10.1109/ICIME.2018.00057>
 24. Wiest, M.J., Bergquist, A.J., Heffernan, M.G., Popovic, M., Masani, K., 2019. Fatigue and Discomfort During Spatially Distributed Sequential Stimulation of Tibialis Anterior. *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING* 27, 1566–1573. <https://doi.org/10.1109/TNSRE.2019.2923117>
 25. Zhang, F., Bohlen, P., Lewek, M.D., Huang, H., 2017. Prediction of Intrinsically Caused Tripping Events in Individuals With Stroke. *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING* 25, 1202–1210. <https://doi.org/10.1109/TNSRE.2016.2614521>
 26. Zheng, Y., Hu, X., 2018a. Improved muscle activation using proximal nerve stimulation with subthreshold current pulses at kilohertz-frequency. *JOURNAL OF NEURAL ENGINEERING* 15. <https://doi.org/10.1088/1741-2552/aab90f>
 27. Zheng, Y., Hu, X., 2018b. Reduced muscle fatigue using kilohertz-frequency subthreshold stimulation of the proximal nerve. *JOURNAL OF NEURAL ENGINEERING* 15. <https://doi.org/10.1088/1741-2552/aadec>

Kocitati

28. Crema, A., Malesevic, N., Furfaro, I., Raschella, F., Pedrocchi, A., Micera, S., 2018. A Wearable Multi-Site System for NMES-Based Hand Function Restoration. *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING* 26, 428–440. <https://doi.org/10.1109/TNSRE.2017.2703151>
29. Imatz Ojanguren, E., Kostic, M., Chia Bejarano, N., Keller, T., 2016. Workshop on transcutaneous functional electrical stimulation, Biosystems and Biorobotics. https://doi.org/10.1007/978-3-319-24901-8_11
30. Malesevic, J., Dujovic, S.D., Savic, A.M., Konstantinovic, L., Vidakovic, A., Bijelic, G., Malesevic, N., Keller, T., 2017. A decision support system for electrode shaping in multi-pad FES foot drop correction. *JOURNAL OF NEUROENGINEERING AND REHABILITATION* 14. <https://doi.org/10.1186/s12984-017-0275-5>
31. Popovic, D.B., 2017. CONTROL OF FUNCTIONAL ELECTRICAL STIMULATION FOR RESTORATION OF MOTOR FUNCTION. *FACTA UNIVERSITATIS-SERIES ELECTRONICS AND ENERGETICS* 30, 295–312. <https://doi.org/10.2298/FUEE1703295P>
32. Popović, D.B., 2015. Principles of command and control for neuroprostheses, in: *Implantable Neuroprostheses for Restoring Function*. pp. 45–58. <https://doi.org/10.1016/B978-1-78242-101-6.00003-3>
33. Popovic, D.B., 2014. Advances in functional electrical stimulation (FES). *JOURNAL OF ELECTROMYOGRAPHY AND KINESIOLOGY* 24, 795–802. <https://doi.org/10.1016/j.jelekin.2014.09.008>
34. Savic, A.M., Malesevic, N.M., Popovic, M.B., 2014. Feasibility of a Hybrid Brain-Computer Interface for Advanced Functional Electrical Therapy. *SCIENTIFIC WORLD JOURNAL*. <https://doi.org/10.1155/2014/797128>
35. Savic, A.M., Popovic, M.B., 2016. Brain computer interface prototypes for upper limb rehabilitation: A review of principles and experimental results. Presented at the 2015 23rd Telecommunications Forum, TELFOR 2015, pp. 452–459. <https://doi.org/10.1109/TELFOR.2015.7377505>
36. Strbac, M., Kocovic, S., Markovic, M., Popovic, D.B., 2014. Microsoft Kinect-Based Artificial Perception System for Control of Functional Electrical Stimulation Assisted Grasping. *BIOMED RESEARCH INTERNATIONAL*. <https://doi.org/10.1155/2014/740469>
37. Topalovic, I., Graovac, S., Popovic, D.B., 2019. EMG map image processing for recognition of fingers movement. *JOURNAL OF ELECTROMYOGRAPHY AND KINESIOLOGY* 49. <https://doi.org/10.1016/j.jelekin.2019.102364>

Autocitatii

38. Krueger, E., Popovic-Maneski, L., Nohama, P., 2018. Mechanomyography-Based Wearable Monitor of Quasi-Isometric Muscle Fatigue for Motor Neural Prostheses. *ARTIFICIAL ORGANS* 42, 208–218. <https://doi.org/10.1111/aor.12973>
39. Metani, A., Popovic-Maneski, L., Mateo, S., Lemahieu, L., Bergeron, V., 2017. Functional electrical stimulation cycling strategies tested during preparation for the First Cybathlon Competition - a practical report from team ENS de Lyon. *EUROPEAN JOURNAL OF TRANSLATIONAL MYOLOGY* 27, 279–288. <https://doi.org/10.4081/ejtm.2017.7110>
40. Popović Maneski, L., Topalović, I., Jovičić, N., Dedijer, S., Konstantinović, L., Popović, D.B., 2016. Stimulation map for control of functional grasp based on multi-channel EMG recordings. *Medical Engineering and Physics* 38, 1251–1259. <https://doi.org/10.1016/j.medengphy.2016.06.004>
41. Popovic-Maneski, L., Kostic, M., Bijelic, G., Keller, T., Mitrovic, S., Konstantinovic, L., Popovic, D.B., 2013. Multi-Pad Electrode for Effective Grasping: Design. *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING* 21, 648–654. <https://doi.org/10.1109/TNSRE.2013.223962>
42. Popović-Maneski, L., Topalović, I., 2019. EMG Map for Designing the Electrode Shape for Functional Electrical Therapy of Upper Extremities, Biosystems and Biorobotics. https://doi.org/10.1007/978-3-030-01845-0_201

5. Muscle Fatigue of Quadriceps in Paraplegics: Comparison between Single vs. Multi-pad Electrode Surface Stimulation

By: [Popovic, Lana Z.](#); [Malesevic, Nebojsa M.](#)

2009 ANNUAL INTERNATIONAL CONFERENCE OF THE IEEE ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY, VOLS 1-20 Book Series: IEEE Engineering in Medicine and Biology Society Conference Proceedings Pages: 6785-6788 Published: 2009

Heterocitatii

1. Bao, X., Zhou, Y., Wang, Y., Zhang, J., Lu, X., Wang, Z., 2018. Electrode placement on the forearm for selective stimulation of finger extension/flexion. *PLOS ONE* 13. <https://doi.org/10.1371/journal.pone.0190936>
2. Barss, T.S., Ainsley, E.N., Claveria-Gonzalez, F.C., Luu, M.J., Miller, D.J., Wiest, M.J., Collins, D.F., 2018. Utilizing Physiological Principles of Motor Unit Recruitment to Reduce Fatigability of Electrically-Evoked Contractions: A Narrative Review. *ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION* 99, 779–791. <https://doi.org/10.1016/j.apmr.2017.08.478>
3. Bickel, C.S., Gregory, C.M., Dean, J.C., 2011. Motor unit recruitment during neuromuscular electrical stimulation: A critical appraisal. *European Journal of Applied Physiology* 111, 2399–2407. <https://doi.org/10.1007/s00421-011-2128-4>

4. Boudville, R., Hussain, Z., Yahaya, S.Z., Abd Rahman, M.F., Ahmad, K.A., Husin, N.I., 2018. Development and Optimization of PID Control for FES Knee Exercise in Hemiplegic Rehabilitation, in: 2018 12TH INTERNATIONAL CONFERENCE ON SENSING TECHNOLOGY (ICST), International Conference on Sensing Technology. Univ Limerick, Dept Elect & Comp Engn, pp. 143–148.
5. Buckmire, A.J., Arakeri, T.J., Reinhard, J.P., Fuglevand, A.J., 2018a. Mitigation of excessive fatigue associated with functional electrical stimulation. JOURNAL OF NEURAL ENGINEERING 15. <https://doi.org/10.1088/1741-2552/aae1c>
6. Buckmire, A.J., Lockwood, D.R., Doane, C.J., Fuglevand, A.J., 2018b. Distributed stimulation increases force elicited with functional electrical stimulation. JOURNAL OF NEURAL ENGINEERING 15. <https://doi.org/10.1088/1741-2552/aa9820>
7. Chalah, M.A., Lefaucheur, J.-P., Ayache, S.S., 2015. Non-invasive Central and Peripheral Stimulation: New Hope for Essential Tremor? FRONTIERS IN NEUROSCIENCE 9. <https://doi.org/10.3389/fnins.2015.00440>
8. Downey, R., Kamalapurkar, R., Fischer, N., Dixon, W., 2015. Compensating for fatigue-induced time-varying delayed muscle response in neuromuscular electrical stimulation control, in: Recent Results on Nonlinear Delay Control Systems: In Honor of Miroslav Krstic. pp. 143–161. https://doi.org/10.1007/978-3-319-18072-4_7
9. Downey, R.J., Bellman, M.J., Kawai, H., Gregory, C.M., Dixon, W.E., 2015a. Comparing the Induced Muscle Fatigue Between Asynchronous and Synchronous Electrical Stimulation in Able-Bodied and Spinal Cord Injured Populations. IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING 23, 964–972. <https://doi.org/10.1109/TNSRE.2014.2364735>
10. Downey, R.J., Cheng, T.-H., Bellman, M.J., Dixon, W.E., 2017. Switched Tracking Control of the Lower Limb During Asynchronous Neuromuscular Electrical Stimulation: Theory and Experiments. IEEE TRANSACTIONS ON CYBERNETICS 47, 1251–1262. <https://doi.org/10.1109/TCYB.2016.2543699>
11. Downey, R.J., Cheng, T.-H., Bellman, M.J., Dixon, W.E., 2015b. Closed-Loop Asynchronous Neuromuscular Electrical Stimulation Prolongs Functional Movements in the Lower Body. IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING 23, 1117–1127. <https://doi.org/10.1109/TNSRE.2015.2427658>
12. Downey, R.J., Cheng, T.-H., Bellman, M.J., Dixon, W.E., 2015c. Switched Tracking Control of a Human Limb during Asynchronous Neuromuscular Electrical Stimulation, in: 2015 AMERICAN CONTROL CONFERENCE (ACC), Proceedings of the American Control Conference. Amer Automat Control Council; IFAC; Adaptics Inc; Altair; dSPACE; Eaton Corp; Elsevier; Int Journal Automat & Comp; Journal Franklin Inst; Plexim Inc; Soc Ind & Appl Math; Springer; CRC Press Taylor & Francis Grp Cogent OA; United Technologies Res Ctr; Wiley; Boeing; Ford Motor Co; GE Global Res; Honeywell; MathWorks; Mitsubishi Elect Res Lab; Quanser, pp. 4504–4508.
13. Downey, R.J., Cheng, T.-H., Dixon, W.E., 2013. Tracking Control of a Human Limb during Asynchronous Neuromuscular Electrical Stimulation, in: 2013 IEEE 52ND ANNUAL CONFERENCE ON DECISION AND CONTROL (CDC), IEEE Conference on Decision and Control. Honeywell; MathWorks; Springer; Taylor & Francis; Univ Trieste; Elsevier; GE Global Res; Natl Instruments; PendCon; Soc Ind & Appl Math; Wolfram; Journal Franklin Inst; United Technologies Res Ctr; Danieli Automat, pp. 139–144.
14. Downey, R.J., Tate, M., Kawai, H., Dixon, W.E., 2014. Comparing the force ripple during asynchronous and conventional stimulation. Muscle and Nerve 50, 549–555. <https://doi.org/10.1002/mus.24186>
15. Ibitoye, M.O., Hamzaid, N.A., Hasnan, N., Wahab, A.K.A., Davis, G.M., 2016. Strategies for Rapid Muscle Fatigue Reduction during FES Exercise in Individuals with Spinal Cord Injury: A Systematic Review. PLOS ONE 11. <https://doi.org/10.1371/journal.pone.0149024>
16. Jubeau, M., Le Fur, Y., Duhamel, G., Wegrzyk, J., Confort-Gouny, S., Vilmen, C., Cozzzone, P.J., Mattei, J.P., Bendahan, D., Gondin, J., 2015. Localized metabolic and T2 changes induced by voluntary and evoked contractions. Medicine and Science in Sports and Exercise 47, 921–930. <https://doi.org/10.1249/MSS.0000000000000491>
17. Koutsou, A.D., Moreno, J.C., del Ama, A.J., Rocon, E., Pons, J.L., 2016. Advances in selective activation of muscles for non-invasive motor neuroprostheses. JOURNAL OF NEUROENGINEERING AND REHABILITATION 13. <https://doi.org/10.1186/s12984-016-0165-2>
18. Laubacher, M., Aksoez, E.A., Brust, A.K., Baumberger, M., Riener, R., Binder-Macleod, S., Hunt, K.J., 2019. Stimulation of paralysed quadriceps muscles with sequentially and spatially distributed electrodes during dynamic knee extension. JOURNAL OF NEUROENGINEERING AND REHABILITATION 16. <https://doi.org/10.1186/s12984-018-0471-y>
19. Laubacher, M., Aksoz, A.E., Riener, R., Binder-Macleod, S., Hunt, K.J., 2017. Power output and fatigue properties using spatially distributed sequential stimulation in a dynamic knee extension task. EUROPEAN JOURNAL OF APPLIED PHYSIOLOGY 117, 1787–1798. <https://doi.org/10.1007/s00421-017-3675-0>
20. Lou, J.W.H., Bergquist, A.J., Aldayel, A., Czitron, J., Collins, D.F., 2017. Interleaved neuromuscular electrical stimulation reduces muscle fatigue. MUSCLE & NERVE 55, 179–189. <https://doi.org/10.1002/mus.25224>
21. Rongsawad, K., Ratanapinunchai, J., 2018. Effects of Very High Stimulation Frequency and Wide-Pulse Duration on Stimulated Force and Fatigue of Quadriceps in Healthy Participants. ANNALS OF REHABILITATION MEDICINE-ARM 42, 250–259. <https://doi.org/10.5535/arm.2018.42.2.250>
22. Sayenko, D.G., Popovic, M.R., Masani, K., 2013. Spatially Distributed Sequential Stimulation Reduces Muscle Fatigue during Neuromuscular Electrical Stimulation, in: 2013 35TH ANNUAL INTERNATIONAL CONFERENCE OF THE IEEE ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY (EMBC), IEEE Engineering in Medicine and Biology Society Conference Proceedings. IEEE Engr Med Biol Soc; Japanese Soc Med & Biol Engrn, pp. 3614–3617.

23. Uddin, R., Hamzaid, N.A., 2014. A Study Protocol to Compare between Two Configurations of Multi-Pad Electrode Array for Functional Electrical Stimulation-Evoked Cycling among Paraplegics, in: 2014 IEEE 19TH INTERNATIONAL FUNCTIONAL ELECTRICAL STIMULATION SOCIETY ANNUAL CONFERENCE (IFESS). IEEE; Int Funct Elect Simulat Soc.
24. Wiest, M.J., Bergquist, A.J., Schmidt, H.L., Jones, K.E., Collins, D.F., 2017. INTERLEAVED NEUROMUSCULAR ELECTRICAL STIMULATION: MOTOR UNIT RECRUITMENT OVERLAP. MUSCLE & NERVE 55, 490–499. <https://doi.org/10.1002/mus.25249>
25. Wong Azman, A., Naeem, J., Mohd Mustafah, Y., Mohamad, S., Khan, S., Zahirul Alam, A.H.M., Habaebi, H., 2016. Analysis on the effect of stimulator parameters in electrical stimulation procedure on the human bicep muscle. Jurnal Teknologi 78, 15–22. <https://doi.org/10.11113/jt.v78.9446>

Kocitati

26. Malesevic, J., Strbac, M., Isakovic, M., Kojic, V., Konstantinovic, L., Vidakovic, A., Dujovic, S.D., Kostic, M., Keller, T., 2017. Temporal and Spatial Variability of Surface Motor Activation Zones in Hemiplegic Patients During Functional Electrical Stimulation Therapy Sessions. ARTIFICIAL ORGANS 41, E166–E177. <https://doi.org/10.1111/aor.13057>
27. Malešević, N.M., Popović, L.Z., Schwirtlich, L., Popović, D.B., 2010. Distributed low-frequency functional electrical stimulation delays muscle fatigue compared to conventional stimulation. Muscle and Nerve 42, 556–562. <https://doi.org/10.1002/mus.21736>

Autocitatii

28. Krueger, E., Popovic-Maneski, L., Nohama, P., 2018. Mechanomyography-Based Wearable Monitor of Quasi-Isometric Muscle Fatigue for Motor Neural Prostheses. ARTIFICIAL ORGANS 42, 208–218. <https://doi.org/10.1111/aor.12973>
29. Malešević, N.M., Maneski, L.Z.P., Ilić, V., Jorgovanović, N., Bijelić, G., Keller, T., Popović, D.B., 2012. A multi-pad electrode based functional electrical stimulation system for restoration of grasp. Journal of NeuroEngineering and Rehabilitation 9. <https://doi.org/10.1186/1743-0003-9-66>
30. Maneski, L.P., Jorgovanovic, N., Ilic, V., Dosen, S., Keller, T., Popovic, M.B., Popovic, D.B., 2011. Electrical stimulation for the suppression of pathological tremor. MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING 49, 1187–1193. <https://doi.org/10.1007/s11517-011-0803-6>
31. Maneski, L.Z.P., Malesevic, N.M., Savic, A.M., Keller, T., Popovic, D.B., 2013. SURFACE-DISTRIBUTED LOW-FREQUENCY ASYNCHRONOUS STIMULATION DELAYS FATIGUE OF STIMULATED MUSCLES. MUSCLE & NERVE 48, 930–937. <https://doi.org/10.1002/mus.23840>
32. Metani, A., Popovic-Maneski, L., Mateo, S., Lemahieu, L., Bergeron, V., 2017. Functional electrical stimulation cycling strategies tested during preparation for the First Cybathlon Competition - a practical report from team ENS de Lyon. EUROPEAN JOURNAL OF TRANSLATIONAL MYOLOGY 27, 279–288. <https://doi.org/10.4081/ejtm.2017.7110>
33. Popovic-Maneski, L., Kostic, M., Bijelic, G., Keller, T., Mitrovic, S., Konstantinovic, L., Popovic, D.B., 2013. Multi-Pad Electrode for Effective Grasping: Design. IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING 21, 648–654. <https://doi.org/10.1109/TNSRE.2013.2239662>

6. Multi-Pad Electrode for Effective Grasping: Design

By: [Popovic-Maneski, Lana](#); [Kostic, Milos](#); [Bijelic, Goran](#); et al.

[IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING](#) Volume: 21 Issue: 4 Pages: 648-654 Published: JUL 2013

Heterocitatii

1. Bao, X., Zhou, Y., Wang, Y., Zhang, J., Lu, X., Wang, Z., 2018. Electrode placement on the forearm for selective stimulation of finger extension/flexion. PLOS ONE 13. <https://doi.org/10.1371/journal.pone.0190936>
2. Crema, A., Malesevic, N., Furfarò, I., Raschella, F., Pedrocchi, A., Micera, S., 2018. A Wearable Multi-Site System for NMES-Based Hand Function Restoration. IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING 26, 428–440. <https://doi.org/10.1109/TNSRE.2017.2703151>
3. De Marchis, C., Monteiro, T.S., Simon-Martinez, C., Conforto, S., Gharabaghi, A., 2016. Multi-contact functional electrical stimulation for hand opening: electrophysiologically driven identification of the optimal stimulation site. JOURNAL OF NEUROENGINEERING AND REHABILITATION 13. <https://doi.org/10.1186/s12984-016-0129-6>
4. Freeman, C., 2016. Control system design for electrical stimulation in upper limb rehabilitation: Modelling, identification and robust performance, Control System Design for Electrical Stimulation in Upper Limb Rehabilitation: Modelling, Identification and Robust Performance. <https://doi.org/10.1007/9783319257068>
5. Freeman, Chris, 2016. Robust Control Design for Electrical Stimulation Electrode Arrays, in: 2016 AMERICAN CONTROL CONFERENCE (ACC), Proceedings of the American Control Conference. Amer Automat Control Council, pp. 3964–3969.
6. Freeman, C.T., Yang, K., Tudor, J., Kutlu, M., 2016. Feedback control of electrical stimulation electrode arrays. Medical Engineering and Physics 38, 1185–1194. <https://doi.org/10.1016/j.medengphy.2016.07.002>

7. Gonzalez, E.J., Downey, R.J., Rouse, C.A., Dixon, W.E., 2018. Influence of Elbow Flexion and Stimulation Site on Neuromuscular Electrical Stimulation of the Biceps Brachii. *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING* 26, 904–910. <https://doi.org/10.1109/TNSRE.2018.2807762>
8. Jiang, Y., Togane, M., Lu, B., Yokoi, H., 2017. sEMG Sensor Using Polypyrrole-Coated Nonwoven Fabric Sheet for Practical Control of Prosthetic Hand. *FRONTIERS IN NEUROSCIENCE* 11. <https://doi.org/10.3389/fnins.2017.00033>
9. Koutsou, A.D., Moreno, J.C., del Ama, A.J., Rocon, E., Pons, J.L., 2016. Advances in selective activation of muscles for non-invasive motor neuroprostheses. *JOURNAL OF NEUROENGINEERING AND REHABILITATION* 13. <https://doi.org/10.1186/s12984-016-0165-2>
10. Kuthu, M., Freeman, C.T., Hallewell, E., Hughes, A.-M., Laila, D.S., 2016. Upper-limb stroke rehabilitation using electrode-array based functional electrical stimulation with sensing and control innovations. *Medical Engineering and Physics* 38, 366–379. <https://doi.org/10.1016/j.medengphy.2016.01.004>
11. Quandt, F., Hummel, F.C., 2014. The influence of functional electrical stimulation on hand motor recovery in stroke patients: A review. *Experimental and Translational Stroke Medicine* 6. <https://doi.org/10.1186/2040-7378-6-9>
12. RaviChandran, N., Aw, K.C., McDaid, A., 2020. Characterizing the Motor Points of Forearm Muscles for Dexterous Neuroprostheses. *IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING* 67, 50–59. <https://doi.org/10.1109/TBME.2019.2907926>
13. Rupp, R., 2017. Neuroprosthetics, in: *Neurological Aspects of Spinal Cord Injury*. pp. 689–720. https://doi.org/10.1007/978-3-319-46293-6_24
14. Rupp, R., Rohm, M., Schneiders, M., 2017. Brain-computer interfaces for control of upper extremity neuroprostheses in individuals with high spinal cord injury, in: *Biomedical Engineering: Concepts, Methodologies, Tools, and Applications*. pp. 809–836. <https://doi.org/10.4018/978-1-5225-3158-6.ch036>
15. Rupp, R., Rohm, M., Schneiders, M., Kreilinger, A., Mueller-Putz, G.R., 2015. Functional Rehabilitation of the Paralyzed Upper Extremity After Spinal Cord Injury by Noninvasive Hybrid Neuroprostheses. *PROCEEDINGS OF THE IEEE* 103, 954–968. <https://doi.org/10.1109/JPROC.2015.2395253>
16. Saggio, G., Riillo, F., Sbernini, L., Quitadamo, L.R., 2016. Resistive flex sensors: a survey. *SMART MATERIALS AND STRUCTURES* 25. <https://doi.org/10.1088/0964-1726/25/1/013001>
17. Salchow-Hoemmen, C., Jankowski, N., Valtin, M., Schoenijahn, L., Boettcher, S., Daehne, F., Schauer, T., 2018. User-centered practicability analysis of two identification strategies in electrode arrays for FES induced hand motion in early stroke rehabilitation. *JOURNAL OF NEUROENGINEERING AND REHABILITATION* 15. <https://doi.org/10.1186/s12984-018-0460-1>
18. Salchow-Hömmen, C., Thomas, T., Valtin, M., Schauer, T., 2018. Automatic control of grasping strength for functional electrical stimulation in forearm movements via electrode arrays. *At-Automatisierungstechnik* 66, 1027–1036. <https://doi.org/10.1515/auto-2018-0068>
19. Wang, H., Bi, Z., Zhou, Yang, Zhou, Yu-xuan, Wang, Z., Lv, X., 2017. Real-time and wearable functional electrical stimulation system for volitional hand motor function control using the electromyography bridge method. *NEURAL REGENERATION RESEARCH* 12, 133–142. <https://doi.org/10.4103/1673-5374.197139>
20. Wang, H.-P., Guo, A.-W., Bi, Z.-Y., Li, F., Lu, X.-Y., Wang, Z.-G., 2017. A Wearable Multi-Pad Electrode Prototype for Selective Functional Electrical Stimulation of Upper Extremities, in: *2017 39TH ANNUAL INTERNATIONAL CONFERENCE OF THE IEEE ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY (EMBC), PROCEEDINGS OF ANNUAL INTERNATIONAL CONFERENCE OF THE IEEE ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY*. IEEE Engr Med & Biol Soc; PubMed; MEDLINE; Korean Soc Med & Biol Engn, pp. 714–717.

Kocitati

21. Crema, A., Guanziroli, E., Malesevic, N., Colombo, M., Liberali, D., Proserpio, D., Bijelic, G., Keller, T., Molteni, F., Micera, S., 2017. Helping Hand grasp rehabilitation: preliminary assessment on chronic stroke patients, in: *2017 8TH INTERNATIONAL IEEE/EMBS CONFERENCE ON NEURAL ENGINEERING (NER)*, International IEEE EMBS Conference on Neural Engineering. IEEE; EMBS, pp. 146–149.
22. Imatz-Ojanguren, E., Irigoyen, E., Valencia-Blanco, D., Keller, T., 2016. Neuro-fuzzy models for hand movements induced by functional electrical stimulation in able-bodied and hemiplegic subjects. *MEDICAL ENGINEERING & PHYSICS* 38, 1214–1222. <https://doi.org/10.1016/j.medengphy.2016.06.008>
23. Kostić, M.D., Popović, D.B., Popović, M.D., 2014. The robot that learns from the therapist how to assist stroke patients. Presented at the *Mechanisms and Machine Science*, pp. 17–29. https://doi.org/10.1007/978-3-319-05431-5_2
24. Malesevic, J., Strbac, M., Isakovic, M., Kojic, V., Konstantinovic, L., Vidakovic, A., Dedijer, S., Kostic, M., Keller, T., 2016. Evolution of surface motor activation zones in hemiplegic patients during 20 sessions of FES therapy with multi-pad electrodes. *EUROPEAN JOURNAL OF TRANSLATIONAL MYOLOGY* 26, 175–180.
25. Malesevic, J., Strbac, M., Isakovic, M., Kojic, V., Konstantinovic, L., Vidakovic, A., Dujovic, S.D., Kostic, M., Keller, T., 2017. Temporal and Spatial Variability of Surface Motor Activation Zones in Hemiplegic Patients During Functional Electrical Stimulation Therapy Sessions. *ARTIFICIAL ORGANS* 41, E166–E177. <https://doi.org/10.1111/aor.13057>
26. Popovic, D.B., 2017. CONTROL OF FUNCTIONAL ELECTRICAL STIMULATION FOR RESTORATION OF MOTOR FUNCTION. *FACTA UNIVERSITATIS-SERIES ELECTRONICS AND ENERGETICS* 30, 295–312. <https://doi.org/10.2298/FUEE1703295P>

27. Popović, D.B., 2015. Principles of command and control for neuroprostheses, in: Implantable Neuroprostheses for Restoring Function. pp. 45–58. <https://doi.org/10.1016/B978-1-78242-101-6.00003-3>
28. Popovic, D.B., 2014. Advances in functional electrical stimulation (FES). JOURNAL OF ELECTROMYOGRAPHY AND KINESIOLOGY 24, 795–802. <https://doi.org/10.1016/j.jelekin.2014.09.008>
29. Savic, A.M., Malesevic, N.M., Popovic, M.B., 2014. Feasibility of a Hybrid Brain-Computer Interface for Advanced Functional Electrical Therapy. SCIENTIFIC WORLD JOURNAL. <https://doi.org/10.1155/2014/797128>
30. Strbac, M., Kocovic, S., Markovic, M., Popovic, D.B., 2014. Microsoft Kinect-Based Artificial Perception System for Control of Functional Electrical Stimulation Assisted Grasping. BIOMED RESEARCH INTERNATIONAL. <https://doi.org/10.1155/2014/740469>
31. Strbac, M.D., Popovic, D.B., 2014. Computer Vision with Microsoft Kinect for Control of Functional Electrical Stimulation: ANN Classification of the Grasping Intentions, in: Reljin, B and Stankovic, S (Ed.), 2014 12TH SYMPOSIUM ON NEURAL NETWORK APPLICATIONS IN ELECTRICAL ENGINEERING (NEUREL). CAS Serbia & Montenegro Chapter; IEEE Signal Proc Soc Serbia & Montenegro Chapter; IEEE S&M Sect; dt; ETRAN; TERI engn; SDD ITG; AV COM; HAPEL; bit projekt complete IT solut, pp. 153–156.

Autocitatii

32. Maneski, L.P., Topalovic, I., Jovicic, N., Dedijer, S., Konstantinovic, L., Popovic, D.B., 2016. Stimulation map for control of functional grasp based on multi-channel EMG recordings. MEDICAL ENGINEERING & PHYSICS 38, 1251–1259. <https://doi.org/10.1016/j.medengphy.2016.06.004>
33. Popović-Maneski, L., Topalović, I., 2019. EMG Map for Designing the Electrode Shape for Functional Electrical Therapy of Upper Extremities, Biosystems and Biorobotics. https://doi.org/10.1007/978-3-030-01845-0_201

7. Adaptive band-pass filter (ABPF) for tremor extraction from inertial sensor data

By: [Popovic, Lana Z.](#); [Sekara, Tomislav B.](#); [Popovic, Mirjana B.](#)

[COMPUTER METHODS AND PROGRAMS IN BIOMEDICINE](#) Volume: 99 Issue: 3 Pages: 298-305 Published: SEP 2010

Heterocitatii

1. Adhikari, K., Tatinati, S., Ang, W.T., Veluvolu, K.C., Nazarpour, K., 2016. A Quaternion Weighted Fourier Linear Combiner for Modeling Physiological Tremor. IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING 63, 2336–2346. <https://doi.org/10.1109/TBME.2016.2530564>
2. Chalah, M.A., Lefaucheur, J.-P., Ayache, S.S., 2015. Non-invasive Central and Peripheral Stimulation: New Hope for Essential Tremor? FRONTIERS IN NEUROSCIENCE 9. <https://doi.org/10.3389/fnins.2015.00440>
3. Dai, H., Zhang, P., Lueth, T.C., 2015. Quantitative Assessment of Parkinsonian Tremor Based on an Inertial Measurement Unit. SENSORS 15, 25055–25071. <https://doi.org/10.3390/s151025055>
4. Dideriksen, J.L., Enoka, R.M., Farina, D., 2011. A Model of the Surface Electromyogram in Pathological Tremor. IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING 58. <https://doi.org/10.1109/TBME.2011.2118756>
5. Dosen, S., Muceli, S., Dideriksen, J.L., Pablo Romero, J., Rocon, E., Pons, J., Farina, D., 2015. Online Tremor Suppression Using Electromyography and Low-Level Electrical Stimulation. IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING 23, 385–395. <https://doi.org/10.1109/TNSRE.2014.2328296>
6. Du, J., Gerdтman, C., Linden, M., 2018. Signal Quality Improvement Algorithms for MEMS Gyroscope-Based Human Motion Analysis Systems: A Systematic Review. SENSORS 18. <https://doi.org/10.3390/s18041123>
7. Herrnstadt, G., McKeown, M.J., Menon, C., 2019. Controlling a motorized orthosis to follow elbow volitional movement: tests with individuals with pathological tremor. JOURNAL OF NEUROENGINEERING AND REHABILITATION 16. <https://doi.org/10.1186/s12984-019-0484-1>
8. Herrnstadt, G., Menon, C., 2016. Voluntary-Driven Elbow Orthosis with Speed-Controlled Tremor Suppression. FRONTIERS IN BIOENGINEERING AND BIOTECHNOLOGY 4. <https://doi.org/10.3389/fbioe.2016.00029>
9. Kobravi, H.R., Ali, S.H., Vatandoust, M., Marvi, R., 2016. Prediction of the wrist joint position during a postural tremor using neural oscillators and an adaptive controller. Journal of Medical Signals and Sensors 6, 117–127.
10. Lazaro, G.H.G., Ramos, M.C., Jr., 2018. Damper glove for hand tremor. Presented at the Lecture Notes in Engineering and Computer Science.
11. Mesin, L., 2016. A neural algorithm for the non-uniform and adaptive sampling of biomedical data. COMPUTERS IN BIOLOGY AND MEDICINE 71, 223–230. <https://doi.org/10.1016/j.combiomed.2016.02.004>
12. Taheri, B., Case, D., Richer, E., 2015. Adaptive Suppression of Severe Pathological Tremor by Torque Estimation Method. IEEE-ASME TRANSACTIONS ON MECHATRONICS 20, 717–727. <https://doi.org/10.1109/TMECH.2014.2317948>
13. Tatinati, S., Veluvolu, K.C., Hong, S.-M., Latt, W.T., Ang, W.T., 2013. Physiological Tremor Estimation With Autoregressive (AR) Model and Kalman Filter for Robotics Applications. IEEE SENSORS JOURNAL 13, 4977–4985. <https://doi.org/10.1109/JSEN.2013.2271737>
14. Wang, S., Gao, Y., Xiao, F., Zang, X., Zhu, Y., Zhao, J., 2016a. Estimation of Tremor Parameters and Extraction Tremor from Recorded Signals for Tremor Suppression, in: Okamura, A and Menciassi, A and Ude, A and Burschka, D and Lee, D and Arrichiello, F and Liu, H and Moon, H and Neira, J and Sycara, K and Yokoi, K and Martinet, P and Oh, P and Valdastri, P and Krovi, V (Ed.), 2016 IEEE INTERNATIONAL CONFERENCE ON ROBOTICS AND AUTOMATION (ICRA), IEEE International Conference on Robotics and Automation ICRA.

- IEEE; IEEE Robot & Automat Soc; ABB; DJI; KUKA; Husqvarna; iRobot; Khalifa Univ; Kinova Univ; MOOG; PAL Robot; UBER; Amazon, pp. 3717–3722.
15. Wang, S., Gao, Y., Zhao, J., Cai, H., 2014. Adaptive sliding bandlimited multiple fourier linear combiner for estimation of pathological tremor. *Biomedical Signal Processing and Control* 10, 260–274.
<https://doi.org/10.1016/j.bspc.2013.10.004>
 16. Wang, S., Gao, Y., Zhu, Y., Zhao, J., 2016b. Estimation of pathological tremor from recorded signals based on adaptive sliding fast Fourier transform. *ADVANCES IN MECHANICAL ENGINEERING* 8.
<https://doi.org/10.1177/1687814016654872>
 17. Western, D., Neild, S.A., Hyde, R.A., Jones, R., Davies-Smith, A., 2014. Relating Sensor-Based Tremor Metrics to a Conventional Clinical Scale, in: 2014 IEEE Healthcare Innovation Conference (HIC). pp. 165–168.
 18. Western, D.G., Neild, S.A., Jones, R., Davies-Smith, A., 2019. Personalised profiling to identify clinically relevant changes in tremor due to multiple sclerosis. *BMC MEDICAL INFORMATICS AND DECISION MAKING* 19.
<https://doi.org/10.1186/s12911-019-0881-1>
 19. Xiao, F., Gao, Y., Wang, S., Zhao, J., 2016. Prediction of pathological tremor using adaptive multiple oscillators linear combiner. *BIOMEDICAL SIGNAL PROCESSING AND CONTROL* 27, 77–86.
<https://doi.org/10.1016/j.bspc.2016.01.006>

Autocitati

20. Maneski, L.P., Jorgovanovic, N., Ilic, V., Dosen, S., Keller, T., Popovic, M.B., Popovic, D.B., 2011. Electrical stimulation for the suppression of pathological tremor. *MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING* 49, 1187–1193. <https://doi.org/10.1007/s11517-011-0803-6>
21. Popovic-Maneski, L.Z., Popovic, M.B., 2012. Real Time Tracking of Tremor EMG Envelopes, in: Jobbagy, A (Ed.), 5TH EUROPEAN CONFERENCE OF THE INTERNATIONAL FEDERATION FOR MEDICAL AND BIOLOGICAL ENGINEERING, PTS 1 AND 2, IFMBE Proceedings. pp. 781–783.

8. EMG-Based Characterization of Pathological Tremor Using the Iterated Hilbert Transform

By: Dideriksen, Jakob Lund; Gianfelici, Francesco; Maneski, Lana Z. Popovic; et al.

IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING Volume: 58 Issue: 10 Pages: 2911-2921 Part: 1 Published: OCT 2011

Heterocitatii

1. Cappellari, P., Gaunt, R., Beringer, C., Mansouri, M., Novelli, M., 2018. Identifying Electromyography Sensor Placement using Dense Neural Networks. Presented at the DATA 2018 - Proceedings of the 7th International Conference on Data Science, Technology and Applications, pp. 130–141.
2. Dai, Y., Kuang, W., Ling, B.W.K., Yang, Z., Tsang, K.-F., Chi, H., Wu, C.-K., Chung, H.S.-H., Hancke, G.P., 2015. Detecting Parkinson's diseases via the characteristics of the intrinsic mode functions of filtered electromyograms. Presented at the Proceeding - 2015 IEEE International Conference on Industrial Informatics, INDIN 2015, pp. 1484–1487. <https://doi.org/10.1109/INDIN.2015.7281952>
3. Furui, A., Hayashi, H., Tsuji, T., 2019. A Scale Mixture-Based Stochastic Model of Surface EMG Signals With Variable Variances. *IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING* 66, 2780–2788.
<https://doi.org/10.1109/TBME.2019.2895683>
4. Gao, Y., Bai, J., Wang, S., Zhao, J., 2015. An elbow-biomechanical modeling based on sEMG. Presented at the Proceedings of the World Congress on Intelligent Control and Automation (WCICA), pp. 5238–5243.
<https://doi.org/10.1109/WCICA.2014.7053607>
5. Gao, Y., Wang, S., Xiao, F., Zhao, J., 2016. AN ANGLE-EMG BIOMECHANICAL MODEL of the HUMAN ELBOW JOINT. *Journal of Mechanics in Medicine and Biology* 16. <https://doi.org/10.1142/S0219519416500780>
6. Jero, S.E., Ramakrishnan, S., 2019. Analysis of Muscle Fatigue Conditions in Surface EMG Signal with A Novel Hilbert Marginal Spectrum Entropy Method. Presented at the Proceedings of the Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBS, pp. 2675–2678.
<https://doi.org/10.1109/EMBC.2019.8857077>
7. Kiguchi, K., Hayashi, Y., 2013. Upper-Limb Tremor Suppression with a 7DOF Exoskeleton Power-Assist Robot, in: 2013 35TH ANNUAL INTERNATIONAL CONFERENCE OF THE IEEE ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY (EMBC), IEEE Engineering in Medicine and Biology Society Conference Proceedings. IEEE Engn Med Biol Soc; Japanese Soc Med & Biol Engn, pp. 6679–6682.
8. Kobravi, H.R., Ali, S.H., Vatandoust, M., Marvi, R., 2016. Prediction of the wrist joint position during a postural tremor using neural oscillators and an adaptive controller. *Journal of Medical Signals and Sensors* 6, 117–127.
9. Lu, Y., Ju, Z., Liu, Y., Shen, Y., Liu, H., 2015. Time series modeling of surface EMG based hand manipulation identification via expectation maximization algorithm. *NEUROCOMPUTING* 168, 661–668.
<https://doi.org/10.1016/j.neucom.2015.05.058>
10. Minetto, M.A., Botter, A., Sprager, S., Agosti, F., Patrizi, A., Lanfranco, F., Sartorio, A., 2013. Feasibility study of detecting surface electromyograms in severely obese patients. *JOURNAL OF ELECTROMYOGRAPHY AND KINESIOLOGY* 23, 285–295. <https://doi.org/10.1016/j.jelekin.2012.09.008>
11. Samaee, S., Kobravi, H.R., 2020. Predicting the occurrence of wrist tremor based on electromyography using a hidden Markov model and entropy based learning algorithm. *Biomedical Signal Processing and Control* 57.
<https://doi.org/10.1016/j.bspc.2019.101739>

12. Sharma, H., Sharma, K.K., 2018. ECG-derived respiration based on iterated Hilbert transform and Hilbert vibration decomposition. AUSTRALASIAN PHYSICAL & ENGINEERING SCIENCES IN MEDICINE 41, 429–443. <https://doi.org/10.1007/s13246-018-0640-0>
13. Sharma, H., Sharma, K.K., 2017. Application of iterated Hilbert transform for deriving respiratory signal from single-lead ECG. Presented at the India International Conference on Information Processing, IICIP 2016 - Proceedings. <https://doi.org/10.1109/IICIP.2016.7975307>
14. Wang, S., Gao, Y., Zhao, J., Cai, H., 2014. Adaptive sliding bandlimited multiple fourier linear combiner for estimation of pathological tremor. BIOMEDICAL SIGNAL PROCESSING AND CONTROL 10, 260–274. <https://doi.org/10.1016/j.bspc.2013.10.004>
15. Xia, Y., Yao, Z., Ye, Q., Cheng, N., 2020. A Dual-Modal Attention-Enhanced Deep Learning Network for Quantification of Parkinson's Disease Characteristics. IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING 28, 42–51. <https://doi.org/10.1109/TNSRE.2019.2946194>
16. Xiao, F., Gao, Y., Wang, S., Zhao, J., 2016. Prediction of pathological tremor using adaptive multiple oscillators linear combiner. BIOMEDICAL SIGNAL PROCESSING AND CONTROL 27, 77–86. <https://doi.org/10.1016/j.bspc.2016.01.006>

Kocitati

17. Alvaro Gallego, J., Ibanez, J., Dideriksen, J.L., Ignacio Serrano, J., Dolores del Castillo, M., Farina, D., Rocon, E., 2012. A Multimodal Human-Robot Interface to Drive a Neuroprosthesis for Tremor Management. IEEE TRANSACTIONS ON SYSTEMS MAN AND CYBERNETICS PART C-APPLICATIONS AND REVIEWS 42, 1159–1168. <https://doi.org/10.1109/TSMCC.2012.2200101>
18. Dideriksen, J.L., Laine, C.M., Dosen, S., Muceli, S., Rocon, E., Pons, J.L., Benito-Leon, J., Farina, D., 2017. Electrical stimulation of afferent pathways for the suppression of pathological tremor. Frontiers in Neuroscience 11. <https://doi.org/10.3389/fnins.2017.00178>
19. Dosen, S., Dideriksen, J.L., Rocon, E., Pons, J.L., Farina, D., 2013. Tremor suppression using electromyography and surface sensory electrical stimulation, Biosystems and Biorobotics. https://doi.org/10.1007/978-3-642-34546-3_87
20. Dosen, S., Muceli, S., Dideriksen, J.L., Pablo Romero, J., Rocon, E., Pons, J., Farina, D., 2015. Online Tremor Suppression Using Electromyography and Low-Level Electrical Stimulation. IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING 23, 385–395. <https://doi.org/10.1109/TNSRE.2014.2328296>
21. Farina, D., Sartori, M., 2016. Surface electromyography for MAN-machine interfacing in rehabilitation technologies, in: Surface Electromyography: Physiology, Engineering and Applications. pp. 540–560. <https://doi.org/10.1002/9781119082934.ch20>

9. Multimodal BCI-Mediated FES Suppression of Pathological Tremor

By: [Rocon, E.](#); [Gallego, J. A.](#); [Barrios, L.](#); et al.

2010 ANNUAL INTERNATIONAL CONFERENCE OF THE IEEE ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY (EMBC) Book Series: IEEE Engineering in Medicine and Biology Society Conference Proceedings Pages: 3337-3340 Published: 2010

Heterocitatii

1. Abbasi, M., Afsharfard, A., Arasteh, R., Safaie, J., 2018. Design of a noninvasive and smart hand tremor attenuation system with active control: a simulation study. MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING 56, 1315–1324. <https://doi.org/10.1007/s11517-017-1769-9>
2. Ayana, E.K., Yasar, C.F., Engin, S.N., 2019. Studies on a Robotic Device that Minimizes End-Point Vibrations for Parkinson Tremor. Presented at the Procedia Computer Science, pp. 338–345. <https://doi.org/10.1016/j.procs.2019.09.060>
3. Chalah, M.A., Lefaucheur, J.-P., Ayache, S.S., 2015. Non-invasive Central and Peripheral Stimulation: New Hope for Essential Tremor? FRONTIERS IN NEUROSCIENCE 9. <https://doi.org/10.3389/fnins.2015.00440>
4. Delisle-Rodriguez, D., Villa-Parra, A.C., Bastos-Filho, T., Lopez-Delis, A., Frizera-Neto, A., Krishnan, S., Rocon, E., 2017. Adaptive Spatial Filter Based on Similarity Indices to Preserve the Neural Information on EEG Signals during On-Line Processing. SENSORS 17. <https://doi.org/10.3390/s17122725>
5. Duivenvoorden, A., Lee, K., Raison, M., Achiche, S., 2017. Sensor Fusion in Upper Limb Area Networks: A Survey, in: 2017 GLOBAL INFORMATION INFRASTRUCTURE AND NETWORKING SYMPOSIUM (GIIS), Global Information Infrastructure and Networking Symposium. pp. 56–63.
6. Hortal, E., Planelles, D., Costa, A., Ianez, E., Ubeda, A., Azorin, J.M., Fernandez, E., 2015. SVM-based Brain-Machine Interface for controlling a robot arm through four mental tasks. NEUROCOMPUTING 151, 116–121. <https://doi.org/10.1016/j.neucom.2014.09.078>
7. Koutsou, A.D., Summa, S., Nasser, B., Martinez, J.G., Thangaramanujam, M., 2014. Upper limb neuroprostheses: Recent advances and future directions, Biosystems and Biorobotics. https://doi.org/10.1007/978-3-642-38556-8_11
8. Lee, J., 2016. Brain-computer interfaces and dualism: a problem of brain, mind, and body. AI & SOCIETY 31, 29–40. <https://doi.org/10.1007/s00146-014-0545-8>
9. Taheri, Behzad, Case, D., Richer, E., 2012a. ACTIVE TREMOR ESTIMATION AND SUPPRESSION IN HUMAN ELBOW JOINT, in: PROCEEDINGS OF THE ASME DYNAMIC SYSTEMS AND CONTROL

CONFERENCE AND BATH/ASME SYMPOSIUM ON FLUID POWER AND MOTION CONTROL (DSCC 2011), VOL 2. ASME, Div Syst & Control Div, pp. 115–120.

10. Taheri, B., Case, D., Richer, E., 2012. Design and development of a human arm joint simulator for evaluation of active assistive devices control algorithms. ASME 2012 5th Annual Dynamic Systems and Control Conference Joint with the JSME 2012 11th Motion and Vibration Conference, DSCC 2012-MOVIC 2012 1, 707–714. <https://doi.org/10.1115/DSCC2012-MOVIC2012-8707>
11. Taheri, Behzad, Case, D., Richer, E., 2012b. ROBUST TREMOR ATTENUATION FOR SINGLE DOF MODEL OF HUMAN ELBOW JOINT WITH PARAMETRIC UNCERTAINTIES, in: PROCEEDINGS OF THE ASME INTERNATIONAL MECHANICAL ENGINEERING CONGRESS AND EXPOSITION 2011, VOL 2. Amer Soc Mech Engn, pp. 595–600.
12. Wang, Shengxin, Gao, Y., Xiao, F., Zang, X., Zhu, Y., Zhao, J., 2016. Estimation of Tremor Parameters and Extraction Tremor from Recorded Signals for Tremor Suppression, in: Okamura, A and Menciassi, A and Ude, A and Burschka, D and Lee, D and Arrichielo, F and Liu, H and Moon, H and Neira, J and Sycara, K and Yokoi, K and Martinet, P and Oh, P and Valdastri, P and Krovi, V (Ed.), 2016 IEEE INTERNATIONAL CONFERENCE ON ROBOTICS AND AUTOMATION (ICRA), IEEE International Conference on Robotics and Automation ICRA. IEEE; IEEE Robot & Automat Soc; ABB; DJI; KUKA; Husqvarna; iRobot; Khalifa Univ; Kinova Univ; MOOG; PAL Robot; UBER; Amazon, pp. 3717–3722.
13. Wang, S., Gao, Y., Zhao, J., Cai, H., 2014. Adaptive sliding bandlimited multiple fourier linear combiner for estimation of pathological tremor. BIOMEDICAL SIGNAL PROCESSING AND CONTROL 10, 260–274. <https://doi.org/10.1016/j.bspc.2013.10.004>
14. Wang, S., Gao, Y., Zhu, Y., Zhao, J., 2016. Estimation of pathological tremor from recorded signals based on adaptive sliding fast Fourier transform. Advances in Mechanical Engineering 8. <https://doi.org/10.1177/1687814016654872>
15. Xiao, F., Gao, Y., Wang, S., Zhao, J., 2016. Prediction of pathological tremor using adaptive multiple oscillators linear combiner. BIOMEDICAL SIGNAL PROCESSING AND CONTROL 27, 77–86. <https://doi.org/10.1016/j.bspc.2016.01.006>

Kocitati

16. Araujo, D.R.S.S., Botelho, T.R., Carvalho, C.R.C., Frizera, A., Ferreira, A., Rocon, E., 2014. Platform for multimodal signal acquisition for the control of lower limb rehabilitation devices. Presented at the NEUROTECHNIX 2014 - Proceedings of the 2nd International Congress on Neurotechnology, Electronics and Informatics, pp. 49–55.
17. Bayón, C., Ramírez, O., Serrano, J.I., Castillo, M.D.D., Pérez-Somarriba, A., Belda-Lois, J.M., Martínez-Caballero, I., Lerma-Lara, S., Cifuentes, C., Frizera, A., Rocon, E., 2017. Development and evaluation of a novel robotic platform for gait rehabilitation in patients with Cerebral Palsy: CPWalker. Robotics and Autonomous Systems 91, 101–114. <https://doi.org/10.1016/j.robot.2016.12.015>
18. del Castillo, M.D., Serrano, J. I., Ibanez, J., Barrios, L.J., 2011. Methodology for Building Brain-Computer Interfaces Applied to Identify Voluntary Movement Intention. REVISTA IBEROAMERICANA DE AUTOMATICA E INFORMATICA INDUSTRIAL 8, 93+. [https://doi.org/10.1016/S1697-7912\(11\)70030-9](https://doi.org/10.1016/S1697-7912(11)70030-9)
19. Farina, D., Negro, F., 2012. Accessing the neural drive to muscle and translation to neurorehabilitation technologies. IEEE Reviews in Biomedical Engineering 5, 3–14. <https://doi.org/10.1109/RBME.2012.2183586>
20. Goffredo, M., Schmid, M., Conforto, S., Bilotti, F., Palma, C., Vigni, L., D'Alessio, T., 2014. A two-step model to optimise transcutaneous electrical stimulation of the human upper arm. COMPEL-THE INTERNATIONAL JOURNAL FOR COMPUTATION AND MATHEMATICS IN ELECTRICAL AND ELECTRONIC ENGINEERING 33, 1329–1345. <https://doi.org/10.1108/COMPEL-04-2013-0118>

Autocitati

21. Maneski, L.P., Jorgovanovic, N., Ilic, V., Dosen, S., Keller, T., Popovic, M.B., Popovic, D.B., 2011. Electrical stimulation for the suppression of pathological tremor. MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING 49, 1187–1193. <https://doi.org/10.1007/s11517-011-0803-6>

10. Bioinformatic Approaches Used in Modelling Human Tremor

By: [Mario, Manto](#); [Giuliana, Grimaldi](#); [Thomas, Lorivel](#); et al.

[CURRENT BIOINFORMATICS](#) Volume: 4 Issue: 2 Pages: 154-172 Published: MAY 2009

Heterocitati

1. Dimitrakopoulos, K., Ellmer, C., Lindstrom, M., Medvedev, A., 2017. Tremor Quantification through Event-based Movement Trajectory Modeling, in: 2017 IEEE CONFERENCE ON CONTROL TECHNOLOGY AND APPLICATIONS (CCTA 2017). IEEE; CSS; IEEE Robot & Automat Soc; SICE, pp. 542–547.
2. Gao, Y., Wang, S., Zhao, J., Cai, H., 2013. Estimation of pathological tremor by using adaptive shifting BMFLC base d on RLS algorithm. Presented at the 2013 IEEE International Conference on Mechatronics and Automation, IEEE ICMA 2013, pp. 569–574. <https://doi.org/10.1109/ICMA.2013.6617979>
3. Gebai, S., Cumunel, G., Hammoud, M., Foret, G., Apartis, E., Flamand-Roze, E., Hainque, E., 2019. Analysis of pathological tremor behavior: Application to design a passive tremor attenuator. Presented at the Structural Health Monitoring 2019: Enabling Intelligent Life-Cycle Health Management for Industry Internet of Things (IIOT) - Proceedings of the 12th International Workshop on Structural Health Monitoring, pp. 603–610.

4. Lee, S.Q., Youm, W., Hwang, G., Moon, K.S., Ozturk, Y., 2014. Resonant ultrasonic wireless power transmission for bio-implants. Presented at the Proceedings of SPIE - The International Society for Optical Engineering. <https://doi.org/10.1117/12.2046600>
5. Medvedev, A., Olsson, F., Wigren, T., 2017. Tremor Quantification through Data-driven Nonlinear System Modeling, in: 2017 IEEE 56TH ANNUAL CONFERENCE ON DECISION AND CONTROL (CDC), IEEE Conference on Decision and Control. IEEE.
6. Olsson, F., Medvedev, A., 2018. Tremor severity rating by Markov chains. IFAC PAPERSONLINE 51, 317–322. <https://doi.org/10.1016/j.ifacol.2018.09.154>
7. Perumal, S.V., Sankar, R., 2016. Gait and tremor assessment for patients with Parkinson's disease using wearable sensors. ICT EXPRESS 2, 168–174. <https://doi.org/10.1016/j.icte.2016.10.005>
8. Wilk, B., Olbrycht, S., 2016. Assessment of a hand tremor based on analysis of the accelerometer signal. Przeglad Elektrotechniczny 92, 144–147. <https://doi.org/10.15199/48.2016.11.36>
9. Zhang, Y., Chen, S., Zhou, Y., Fang, Y., Qian, C., 2019. Monitoring Bodily Oscillation With RFID Tags. IEEE INTERNET OF THINGS JOURNAL 6, 3840–3854. <https://doi.org/10.1109/JIOT.2019.2892000>

Kocitati

10. Conforto, S., Bernabucci, I., Severini, G., Schmid, M., D'Alessio, T., 2009. Biologically inspired modelling for the control of upper limb movements: From concept studies to future applications. Frontiers in Neurorobotics 3. <https://doi.org/10.3389/neuro.12.003.2009>
 11. De Marchis, C., Schmid, M., Conforto, S., 2012. An optimized method for tremor detection and temporal tracking through repeated second order moment calculations on the surface EMG signal. MEDICAL ENGINEERING & PHYSICS 34, 1268–1277. <https://doi.org/10.1016/j.medengphy.2011.12.017>
 12. Grimaldi, G., Manto, M., 2010. Neurological tremor: Sensors, signal processing and emerging applications. Sensors 10, 1399–1422. <https://doi.org/10.3390/s100201399>
 13. Lavita, S.I., Aro, R., Kiss, B., Manto, M., Duez, P., 2016. The Role of beta-Carboline Alkaloids in the Pathogenesis of Essential Tremor. CEREBELLUM 15, 276–284. <https://doi.org/10.1007/s12311-015-0751-z>
11. Muscle twitch responses for shaping the multi-pad electrode for functional electrical stimulation
By: Malesevic, N.; Popovic, L.; Bijelic, G.; Kvascev, G.
Journal of Automatic Control Volume: 20 Issue: 1 Pages: 53-57 Published: 2010

Heterocitatii

- Chalah, M.A., Lefaucheur, J.-P., Ayache, S.S., 2015. Non-invasive Central and Peripheral Stimulation: New Hope for Essential Tremor? FRONTIERS IN NEUROSCIENCE 9. <https://doi.org/10.3389/fnins.2015.00440>
- De Marchis, C., Monteiro, T.S., Simon-Martinez, C., Conforto, S., Gharabaghi, A., 2016. Multi-contact functional electrical stimulation for hand opening: electrophysiologically driven identification of the optimal stimulation site. JOURNAL OF NEUROENGINEERING AND REHABILITATION 13. <https://doi.org/10.1186/s12984-016-0129-6>
- Freeman, Chris T., 2014. Electrode array-based electrical stimulation using ILC with restricted input subspace. CONTROL ENGINEERING PRACTICE 23, 32–43. <https://doi.org/10.1016/j.conengprac.2013.11.006>
- Freeman, C. T., 2014a. Iterative Learning Control with Restricted Input Subspace for Electrode Array-based FES, in: 2014 AMERICAN CONTROL CONFERENCE (ACC), Proceedings of the American Control Conference. American Automat Control Council; Boeing; GE Global Res; Honeywell; MathWorks; Mitsubishi Elect Res Lab; National Instruments; Bosch Grp; dSPACE; Eaton; Elsevier; Inst Engn Technol; Maplesoft Engn Solut; Quanser; Soc Ind Appl Math; Springer; Taylor & Francis Grp; Journal Franklin Inst; Visual Solut; Wiley; Swiss Fed Inst Technol Zurich, Dept Mech & Proc Engn, pp. 4243–4248.
- Freeman, C. T., 2014b. Phase-lead ILC based electrode array stimulation using reduced input subspace, in: 2014 UKACC INTERNATIONAL CONFERENCE ON CONTROL (CONTROL). Inst Engn Technol; MathWorks; Inst Mech Engineers; Inst Measurement & Control; IEEE; IEEE UK & RI Control Syst Chapter; United Kingdom Automatic Control Council, pp. 591–596.
- Freeman, C.T., Yang, K., Tudor, J., Kutlu, M., 2016. Feedback control of electrical stimulation electrode arrays. MEDICAL ENGINEERING & PHYSICS 38, 1185–1194. <https://doi.org/10.1016/j.medengphy.2016.07.002>
- Goffredo, M., Schmid, M., Conforto, S., Bilotti, F., Palma, C., Vigni, L., D'Alessio, T., 2014. A two-step model to optimise transcutaneous electrical stimulation of the human upper arm. COMPEL-THE INTERNATIONAL JOURNAL FOR COMPUTATION AND MATHEMATICS IN ELECTRICAL AND ELECTRONIC ENGINEERING 33, 1329–1345. <https://doi.org/10.1108/COMPEL-04-2013-0118>
- Gonzalez, E.J., Downey, R.J., Rouse, C.A., Dixon, W.E., 2018. Influence of Elbow Flexion and Stimulation Site on Neuromuscular Electrical Stimulation of the Biceps Brachii. IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING 26, 904–910. <https://doi.org/10.1109/TNSRE.2018.2807762>
- Koutsou, A.D., Moreno, J.C., del Ama, A.J., Rocon, E., Pons, J.L., 2016. Advances in selective activation of muscles for non-invasive motor neuroprostheses. JOURNAL OF NEUROENGINEERING AND REHABILITATION 13. <https://doi.org/10.1186/s12984-016-0165-2>

- Rouse, C.A., Parikh, A., Duenas, V., Cousin, C., Dixon, W.E., 2016. Compensating for Changing Muscle Geometry of the Biceps Brachii During Neuromuscular Electrical Stimulation: A Switched Systems Approach, in: 2016 IEEE 55TH CONFERENCE ON DECISION AND CONTROL (CDC), IEEE Conference on Decision and Control. IEEE; Soc Ind & Appl Math; Inst Operat Res & Management Sci; Japanese Soc Instrument Control Engineers; European Control Assoc, pp. 1328–1333.
- Uddin, R., Hamzaid, N.A., 2014. A Study Protocol to Compare between Two Configurations of Multi-Pad Electrode Array for Functional Electrical Stimulation-Evoked Cycling among Paraplegics, in: 2014 IEEE 19TH INTERNATIONAL FUNCTIONAL ELECTRICAL STIMULATION SOCIETY ANNUAL CONFERENCE (IFESS). IEEE; Int Funct Elect Simulat Soc.

Autocitati

- Malesevic, N.M., Maneski, L.Z.P., Ilic, V., Jorgovanovic, N., Bijelic, G., Keller, T., Popovic, D.B., 2012. A multi-pad electrode based functional electrical stimulation system for restoration of grasp. JOURNAL OF NEUROENGINEERING AND REHABILITATION 9. <https://doi.org/10.1186/1743-0003-9-66>
- Maneski, L.P., Jorgovanovic, N., Ilic, V., Dosen, S., Keller, T., Popovic, M.B., Popovic, D.B., 2011. Electrical stimulation for the suppression of pathological tremor. MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING 49, 1187–1193. <https://doi.org/10.1007/s11517-011-0803-6>

H-index = 11

12. [Stimulation map for control of functional grasp based on multi-channel EMG recordings](#)

By: [Maneski, Lana Popovic](#); [Topalovic, Ivan](#); [Jovicic, Nenad](#); et al.
[MEDICAL ENGINEERING & PHYSICS](#) Volume: 38 Issue: 11 Special Issue: SI Pages: 1251-1259 Published: NOV 2016

Heterocitati

1. Dai, C., Tan, R., Lv, X., He, J., 2017. Modulation of Upper Limb Locomotor Function via Transcutaneous Electrical Stimulation of Spinal Cord Nervous System, in: 2017 IEEE INTERNATIONAL CONFERENCE ON CYBORG AND BIONIC SYSTEMS (CBS). IEEE; IEEE Robot & Automat Soc; IEEE Computat Intelligence Soc; Beijing Inst Technol; IEEE Syst Man & Cybernet Soc; IEEE Engn Med & Biol Soc; IEEE Robot & Automat Soc Tech Comm Neuro Robot Syst, pp. 154–159.
2. Hu, X.-H., Song, A.-G., Li, H.-J., 2018. Dexterous robot hand control system based on surface electromyography image. Kongzhi Lilun Yu Yingyong/Control Theory and Applications 35, 1707–1714. <https://doi.org/10.7641/CTA.2018.80448>
3. Li, X., Zhou, Z., Ji, M., Liu, W., 2019. A wearable wireless device designed for surface electromyography acquisition. Microsystem Technologies. <https://doi.org/10.1007/s00542-019-04548-3>
4. Li, Xiaou, Zhou, Z., Liu, W., Ji, M., 2019. Wireless sEMG-based identification in a virtual reality environment. MICROELECTRONICS RELIABILITY 98, 78–85. <https://doi.org/10.1016/j.microrel.2019.04.007>
5. Prochazka, A., 2019. Motor Neuroprostheses. COMPREHENSIVE PHYSIOLOGY 9, 127–148. <https://doi.org/10.1002/cphy.c180006>

Kocitati

6. Topalovic, I., Graovac, S., Popovic, D.B., 2019. EMG map image processing for recognition of fingers movement. JOURNAL OF ELECTROMYOGRAPHY AND KINESIOLOGY 49. <https://doi.org/10.1016/j.jelekin.2019.102364>

Autocitati

7. Popović-Maneski, L., Topalović, I., 2019. EMG Map for Designing the Electrode Shape for Functional Electrical Therapy of Upper Extremities, Biosystems and Biorobotics. https://doi.org/10.1007/978-3-030-01845-0_201

13. [Assessment of Spasticity by a Pendulum Test in SCI Patients Who Exercise FES Cycling or Receive Only Conventional Therapy](#)

By: [Popovic-Maneski, Lana](#); [Aleksic, Antonina](#); [Metani, Amine](#); et al.
[IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING](#) Volume: 26 Issue: 1 Pages: 181-187 Published: JAN 2018

Heterocitati

1. Kiryachkov, Y.Y., Grechko, A.V., Kolesov, D.L., Loginov, A.A., Petrova, M.V., Rubanes, M., Pryanikov, I.V., 2018. Monitoring of the effectiveness of intensive care and rehabilitation by evaluating the functional activity of the autonomic nervous system in patients with brain damage. Obshchaya Reanimatologiya 14, 21–34. <https://doi.org/10.15360/1813-9779-2018-4-21-34>

2. Noorsal, E., Yahaya, S.Z., Hussain, Z., Bouldville, R., Ibrahim, M.N., Mohd Ali, Y., 2020. Analytical study of flexible stimulation waveforms in muscle fatigue reduction. International Journal of Electrical and Computer Engineering 10, 690–703. <https://doi.org/10.11591/ijece.v10i1.pp690-703>
3. Rouse, C.A., Cousin, C.A., Duenas, V.H., Dixon, W.E., 2019. FES and Motor Assisted Cycling to Track Power and Cadence to Desired Voluntary Bounds. IFAC PAPERSONLINE 51, 34–39. <https://doi.org/10.1016/j.ifacol.2019.01.014>

Autocitatii

4. Aleksić, A., Graovac, S., Maneski, L.P., Popović, D.B., 2018. The assessment of spasticity: Pendulum test based smart phone movie of passive markers. Serbian Journal of Electrical Engineering 15, 29–39. <https://doi.org/10.2298/SJEE1801029A>
5. Cobeljic, R.D., Ribaric-Jankes, K., Aleksic, A., Popovic-Maneski, L.Z., Schwirtlich, L.B., Popovic, D.B., 2018. Does galvanic vestibular stimulation decrease spasticity in clinically complete spinal cord injury? INTERNATIONAL JOURNAL OF REHABILITATION RESEARCH 41, 251–257. <https://doi.org/10.1097/MRR.0000000000000297>
6. Metani, A., Popovic-Maneski, L., Mateo, S., Lemahieu, L., Bergeron, V., 2017. Functional electrical stimulation cycling strategies tested during preparation for the First Cybathlon Competition - a practical report from team ENS de Lyon. EUROPEAN JOURNAL OF TRANSLATIONAL MYOLOGY 27, 279–288. <https://doi.org/10.4081/eitm.2017.7110>

Kocitatii

7. Popović, D.B., Bajd, T., 2018. Pendulum test: Quantified assessment of the type and level of spasticity in persons with central nervous system lesions. Serbian Journal of Electrical Engineering 15, 1–12. <https://doi.org/10.2298/SJEE171204006P>

14. Optimization of Multi-pad Surface Electrode: Selective Stimulation of Wrist

By: [Popovic, Lana Z.](#); [Malesevic, Nebojsa M.](#); [Popovic, Mirjana B.](#)

EUROCON 2009: INTERNATIONAL IEEE CONFERENCE DEVOTED TO THE 150 ANNIVERSARY OF ALEXANDER S. POPOV, VOLS 1- 4, PROCEEDINGS Pages: 142-145 Published: 2009

Heterocitatii

- Chalah, M.A., Lefaucheur, J.-P., Ayache, S.S., 2015. Non-invasive Central and Peripheral Stimulation: New Hope for Essential Tremor? FRONTIERS IN NEUROSCIENCE 9. <https://doi.org/10.3389/fnins.2015.00440>
- De Marchis, C., Monteiro, T.S., Simon-Martinez, C., Conforto, S., Gharabaghi, A., 2016. Multi-contact functional electrical stimulation for hand opening: electrophysiologically driven identification of the optimal stimulation site. JOURNAL OF NEUROENGINEERING AND REHABILITATION 13. <https://doi.org/10.1186/s12984-016-0129-6>
- Koutsou, A.D., Moreno, J.C., del Ama, A.J., Rocon, E., Pons, J.L., 2016. Advances in selective activation of muscles for non-invasive motor neuroprostheses. JOURNAL OF NEUROENGINEERING AND REHABILITATION 13. <https://doi.org/10.1186/s12984-016-0165-2>

Autocitatii

- Malesevic, N.M., Maneski, L.Z.P., Ilic, V., Jorgovanovic, N., Bijelic, G., Keller, T., Popovic, D.B., 2012. A multi-pad electrode based functional electrical stimulation system for restoration of grasp. JOURNAL OF NEUROENGINEERING AND REHABILITATION 9. <https://doi.org/10.1186/1743-0003-9-66>
- Maneski, L.P., Jorgovanovic, N., Ilic, V., Dosen, S., Keller, T., Popovic, M.B., Popovic, D.B., 2011. Electrical stimulation for the suppression of pathological tremor. MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING 49, 1187–1193. <https://doi.org/10.1007/s11517-011-0803-6>

15. Classification of muscle twitch response using ANN: Application in multi-pad electrode optimization(Conference Paper)

By: [Malešević, N.](#), [Popović, L.](#), [Bijelić, G.](#), [Kvaščev, G.](#)

10th Symposium on Neural Network Applications in Electrical Engineering, NEUREL-2010 - Proceedings2010, Article number 5644042, Pages 11-1310th Symposium on Neural Network Applications in Electrical Engineering, NEUREL-2010; Belgrade; Serbia; 23 September 2010 through 25 September 2010; DOI: 10.1109/NEUREL.2010.5644042

Heterocitatii

1. Brunetti, F., Garay, Á., Moreno, J.C., Pons, J.L., 2011. Enhancing functional electrical stimulation for emerging rehabilitation robotics in the framework of hyper project. Presented at the IEEE International Conference on Rehabilitation Robotics. <https://doi.org/10.1109/ICORR.2011.5975370>

2. Imatz, E., Irigoyen, E., Valencia, D., Keller, T., 2015. Feasibility of using neuro-fuzzy subject-specific models for Functional Electrical Stimulation induced hand movements. IFAC-PapersOnLine 28, 321–326.
<https://doi.org/10.1016/j.ifacol.2015.10.159>
3. Ravichandran, N., Aw, K.C., McDaid, A., 2020. Characterizing the Motor Points of Forearm Muscles for Dexterous Neuroprostheses. IEEE Transactions on Biomedical Engineering 67, 50–59.
<https://doi.org/10.1109/TBME.2019.2907926>

Kocitati

4. Imatz-Ojanguren, E., Zabaleta, H., Valencia-Blanco, D., Malešević, J., Kostić, M., Keller, T., 2017. Clinical Trial Protocol for Analyzing the Effect of the Intensity of FES-Based Therapy on Post-stroke Foot Drop, Biosystems and Biorobotics. https://doi.org/10.1007/978-3-319-46669-9_108
5. Malešević, J., Štrbac, M., Isaković, M., Kojić, V., Konstantinović, L., Vidaković, A., Dedijer Dujović, S., Kostić, M., Keller, T., 2017. Temporal and Spatial Variability of Surface Motor Activation Zones in Hemiplegic Patients During Functional Electrical Stimulation Therapy Sessions. Artificial Organs 41, E166–E177.
<https://doi.org/10.1111/aor.13057>

16. Extraction of Tremor for Control of Neural Prostheses: Comparison of Discrete Wavelet Transform and Butterworth Filter

By: Popovic, Lana; Popovic, Mirjana B.

Conference: 9th Symposium on Neural Network Applications in Electrical Engineering Location: Univ Belgrade, Fac Elect Engn, Belgrade, SERBIA Date: SEP 25-27, 2008

Sponsor(s): IEEE; IEEE Computat Intelligence Soc

NEUREL 2008: NINTH SYMPOSIUM ON NEURAL NETWORK APPLICATIONS IN ELECTRICAL ENGINEERING, PROCEEDINGS Pages: 129-132 Published: 2008

Heterocitati

- Shahtalebi, S., Atashzar, S.F., Patel, R.V., Mohammadi, A., 2019a. HMFP-DBRNN: Real-Time Hand Motion Filtering and Prediction via Deep Bidirectional RNN. IEEE Robotics and Automation Letters 4, 1061–1068. <https://doi.org/10.1109/LRA.2019.2894005>
- Shahtalebi, S., Atashzar, S.F., Patel, R.V., Mohammadi, A., 2019b. WAKE: Wavelet decomposition coupled with adaptive Kalman filtering for pathological tremor extraction. Biomedical Signal Processing and Control 48, 179–188. <https://doi.org/10.1016/j.bspc.2018.10.007>
- Shahtalebi, S., Mohammadi, A., Atashzar, S.F., Patel, R.V., 2018. A multi-rate and auto-Adjustable wavelet decomposition framework for pathological hand tremor extraction. Presented at the 2017 IEEE Global Conference on Signal and Information Processing, GlobalSIP 2017 - Proceedings, pp. 432–436. <https://doi.org/10.1109/GlobalSIP.2017.8308679>

Kocitati

- Popović, D.B., Popović, M.B., 2008. External control of movements and artificial neural networks. Presented at the 9th Symposium on Neural Network Applications in Electrical Engineering, NEUREL 2008 Proceedings, pp. 115–119. <https://doi.org/10.1109/NEUREL.2008.4685584>

17. Mechanomyography-Based Wearable Monitor of Quasi-Isometric Muscle Fatigue for Motor Neural Prostheses

By: Krueger, Eddy; Popovic-Maneski, Lana; Nohama, Percy

ARTIFICIAL ORGANS Volume: 42 Issue: 2 Pages: 208-218 Published: FEB 2018

- Ibitoye, M.O., Hamzaid, N.A., Abdul Wahab, A.K., Hasnan, N., Davis, G.M., 2019. Quadriceps mechanomyography reflects muscle fatigue during electrical stimulus-sustained standing in adults with spinal cord injury- A proof of concept. Biomedizinische Technik. <https://doi.org/10.1515/bmt-2019-0118>
- Rinaldin, C.D.P., Cabral, L.P.A., Krueger, E., Nogueira-Neto, G.N., Nohama, P., Scheeren, E.M., 2019. Fatigue in complete spinal cord injury and implications on total delay. Artificial Organs. <https://doi.org/10.1111/aor.13573>
- Woods, B., Subramanian, M., Shafti, A., Faisal, A.A., 2018. Mecbanomyography Based Closed-Loop Functional Electrical Stimulation Cycling System. Presented at the Proceedings of the IEEE RAS and EMBS International Conference on Biomedical Robotics and Biomechatronics, pp. 179–184. <https://doi.org/10.1109/BIOROB.2018.8487941>

18. A new method and instrumentation for analyzing spasticity

By: Popovic-Maneski, L.; Aleksic, A.; Cobeljic, R.; Bajd, T.; Popovic, D. B.

IETI Trans. Ergonom. Safety Volume: 1 Issue: 1 Pages: 12-27 Published: 2017

Heterocitati

- Rosly, H.M., Sidek, S.N., Puji, A.A., Yusoff, H.M., Daud, N., Rosly, M.M., 2019. Clasp-Knife Model of Muscle Spasticity for Simulation of Robot-Human Interaction. IEEE ACCESS 7, 1355–1364.
<https://doi.org/10.1109/ACCESS.2018.2846595>

Autocitati

- Cobeljic, R.D., Ribaric-Jankes, K., Aleksic, A., Popovic-Maneski, L.Z., Schwirtlich, L.B., Popovic, D.B., 2018. Does galvanic vestibular stimulation decrease spasticity in clinically complete spinal cord injury? INTERNATIONAL JOURNAL OF REHABILITATION RESEARCH 41, 251–257.
<https://doi.org/10.1097/MRR.0000000000000297>
- Popovic-Maneski, L., Aleksic, A., Metani, A., Bergeron, V., Cobeljic, R., Popovic, D.B., 2018. Assessment of Spasticity by a Pendulum Test in SCI Patients Who Exercise FES Cycling or Receive Only Conventional Therapy. IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING 26, 181–187. <https://doi.org/10.1109/TNSRE.2017.2771466>

19. Does galvanic vestibular stimulation decrease spasticity in clinically complete spinal cord injury?

By: Čobeljić, R.D., Ribarič-Jankes, K., Aleksić, A., Popović-Maneski, L.Z., Schwirtlich, L.B., Popović, D.B.

International Journal of Rehabilitation Research Volume 41, Issue 3, 1 September 2018, Pages 251-257

Heterocitati

- Sangari, S., Lundell, H., Kirshblum, S., Perez, M.A., 2019. Residual descending motor pathways influence spasticity after spinal cord injury. Annals of Neurology 86, 28–41. <https://doi.org/10.1002/ana.25505>

20. LOW-INTENSITY ELECTRICAL STIMULATION AND STEM CELLS IN A DOG WITH ACUTE SPINAL CORD INJURY

By: Krueger, Eddy; Magri, Liane M. S.; Botelh, Agatha S.; et al.

2017 13TH IASTED INTERNATIONAL CONFERENCE ON BIOMEDICAL ENGINEERING (BIOMED) Pages: 82-88 Published: 2017

Heterocitati

- Khan, I.U., Yoon, Y., Choi, K.U., Jo, K.R., Kim, N., Lee, E., Kim, W.H., Kweon, O.-K., 2019. Therapeutic effects of intravenous injection of fresh and frozen thawed ho-1-overexpressed ad-mscs in dogs with acute spinal cord injury. Stem Cells International 2019. <https://doi.org/10.1155/2019/8537541>

21. MAXSENS: A flexible matrix electrode for sensory substitution

By: Popović-Maneski, L., Došen, S.b, Bijelić, G.

Biosystems and Biorobotics Volume 1, 2013, Pages 481-485

Heterocitati

- Withana, A., Groeger, D., Steimle, J., 2018. Tacttoo: A thin and feel-through tattoo for on-skin tactile output. Presented at the UIST 2018 - Proceedings of the 31st Annual ACM Symposium on User Interface Software and Technology, pp. 365–378. <https://doi.org/10.1145/3242587.3242645>

22. Effects of low-intensity electrical stimulation and adipose derived stem cells transplantation on the time-domain analysis-based electromyographic signals in dogs with SCI

By: Krueger, E.; Magri, L. M. S.; Botelho, A. S.; et al.

NEUROSCIENCE LETTERS Volume: 696 Pages: 38-45 Published: MAR 23 2019

Full Text from Publisher Free Accepted Article From Repository

Heterocitati

- Dibble, C.F., Khalifeh, J.M., VanVoorhis, A., Rich, J.T., Ray, W.Z., 2019. Novel Nerve Transfers for Motor and Sensory Restoration in High Cervical Spinal Cord Injury. World Neurosurgery 128, 611-615.e1.
<https://doi.org/10.1016/j.wneu.2019.04.264>

23. EMG Map for Designing the Electrode Shape for Functional Electrical Therapy of Upper Extremities

By: Popovic Maneski, L. P.; Topalovic, I.

INT C NEUROREHABILIT Pages: 1003-1007 Published: 2018

Kocitati

- Topalovic, I., Graovac, S., Popovic, D.B., 2019. EMG map image processing for recognition of fingers movement. JOURNAL OF ELECTROMYOGRAPHY AND KINESIOLOGY 49. <https://doi.org/10.1016/j.jelekin.2019.102364>

24. Assessment of Hand Function With Flex Sensors

By: Popovic Maneski, L; Jevtic, T; Malesvic, N.

ZLAT ME 1 3 P ETRAN Published: 2012 1.3

Autocitati

- Malesevic, N.M., Maneski, L.Z.P., Ilic, V., Jorgovanovic, N., Bijelic, G., Keller, T., Popovic, D.B., 2012. A multi-pad electrode based functional electrical stimulation system for restoration of grasp. JOURNAL OF NEUROENGINEERING AND REHABILITATION 9. <https://doi.org/10.1186/1743-0003-9-66>

25. A systematic method to determine customised FES cycling patterns and assess their efficiency

By: Popovic-Maneski, L; Metani, A; Le Jeune, F; Bergeron, V.

P 4 INT C EL EL COMP Article Number: BTI2.3.1-4 Published: 2017

Autocitati

- Metani, A., Popović-Maneski, L., Mateo, S., Lemahieu, L., Bergeron, V., 2017. Functional electrical stimulation cycling strategies tested during preparation for the First Cybathlon Competition – a practical report from team ENS de Lyon. Eur J Transl Myol 27. <https://doi.org/10.4081/ejtm.2017.7110>

ПРИЛОГ 6 - КОПИЈА ОДЛУКЕ О СТИЦАЊУ ПРЕТХОДНОГ НАУЧНОГ ЗВАЊА НАУЧНИ САРАДНИК

Република Србија
МИНИСТАРСТВО ПРОСВЕТЕ,
НАУКЕ И ТЕХНОЛОШКОГ РАЗВОЈА

Комисија за стицање научних звања

Број: 660-01-00011/88

30.09.2015. године

Београд

На основу члана 22. става 2. члана 70. став 5. Закона о научноистраживачкој делатности ("Службени гласник Републике Србије", број 110/05 и 50/06 – исправка и 18/10), члана 2. става 1. и 2. тачке 1 – 4.(прилози) и члана 38. Правилника о поступку и начину вредновања и квантитативном исказивању научноистраживачких резултата истраживача ("Службени гласник Републике Србије", број 38/08) и захтева који је поднео

Инсимишуш за хемију, технологију и мешалургију у Београду

Комисија за стицање научних звања на седници одржаној 30.09.2015. године, донела је

ОДЛУКУ О СТИЦАЊУ НАУЧНОГ ЗВАЊА

Др Лана Пойловић Манески

стиче научно звање

Научни сарадник

у области техничко-технолошких наука - електроника

ОБРАЗЛОЖЕЊЕ

Инсимишуш за хемију, технологију и мешалургију у Београду

утврдио је предлог број 201 од 30.01.2015. године на седници Научног већа Института и поднео захтев Комисији за стицање научних звања број 294 од 20.02.2015. године за доношење одлуке о испуњености услова за стицање научног звања **Научни сарадник**.

Комисија за стицање научних звања је по претходно прибављеном позитивном мишљењу Матичног научног одбора за електронику, телекомуникације и информационе технологије на седници одржаној 30.09.2015. године разматрала захтев и утврдила да именована испуњава услове из члана 70. став 5. Закона о научноистраживачкој делатности ("Службени гласник Републике Србије", број 110/05 и 50/06 – исправка и 18/10), члана 2. става 1. и 2. тачке 1 – 4.(прилози) и члана 38. Правилника о поступку и начину вредновања и квантитативном исказивању научноистраживачких резултата истраживача ("Службени гласник Републике Србије", број 38/08) за стицање научног звања **Научни сарадник**, па је одлучила као у изреци ове одлуке.

Доношењем ове одлуке именована стиче сва права која јој на основу ње по закону припадају.

Одлуку доставити подносиоцу захтева, именованој и архиви Министарства просвете, науке и технолошког развоја у Београду.

ПРЕДСЕДНИК КОМИСИЈЕ

Др Станислава Стошић-Грујићић,
научни саветник

С. Стошић-Грујић

