

Name and Surname

Tatjana Lončar-Turukalo

Academic or scientific position:

Associate Professor

Affiliation:

University of Novi Sad, Faculty of Technical Sciences

EDUCATION

- **Dr.-Ing (Ph.D.) in Electrical Engineering** (25. November 2011)
 - University of Novi Sad, Faculty of Technical Sciences, Serbia
 - Thesis title: *Modelling the temporal sequence parameters in surrogate data of cardiovascular oscillations*
- **Mr.-Ing. in Electrical Engineering** (14. November 2007)
 - University of Novi Sad, Faculty of Technical Sciences, Serbia
 - Thesis title: *Heart rate variability time series: autoregressive modelling and nonlinear analysis*
- **Dipl.-Ing. – Electronics & Telecommunications** (16. February 2001)
 - University of Novi Sad, Faculty of Technical Sciences, Serbia
 - Thesis title: *Lossy image compression based on bit plane decomposition*

MEMBERSHIPS

CEVAS- The Centre of Excellence for Vibro-Acoustic Systems and Signal Processing,
Faculty of Technical Sciences, University of Novi Sad

iCONIC - Centre for Intelligent COmmunications, Networking and Information processing
Large Scale Information Processing Group
Faculty of Technical Sciences, University of Novi Sad

IEEE, IEEE Women in Engineering, IEEE Engineering in Medicine and Biology Society

PARTICIPATION IN NATIONAL PROJECTS

1. Influences of structures in the brain stem and spinal cord on the variability of blood pressure and heart rate, project of Serbian Ministry for Science and Technology, Basic Research OI 145062B, 2006-2008, role: participant
2. Wireless sensor networks and remote sensing- the framework of new agricultural infrastructure, project of Serbian Ministry for Science and Technology, Technology development project No. 11022, 2008 - 2010. role: participant
3. Development of multivariable methods for analytical support to biomedical diagnostics, project of Serbian Ministry for Science and Technology, Technology development project No. 32040, 2011 - 2016. role: participant
4. Biosensing technology and global system for continuous monitoring and integrated management of ecosystems, project of Serbian Ministry for Science and Technology, Integral Interdisciplinary Research No43002, 2011 - 2016. role: participant
5. Development of advanced coding techniques in multi-track magnetic systems for very dense data storage, project of Provincial Secretariat for Science and Technology Development No 451-2061, 2011-2015 role: participant

PARTICIPATION IN INTERNATIONAL PROJECTS

1. Statistical characterization of neural behaviour in the cerebral cortex of behaving animals, Serbian&Hungarian intergovernmental S&T programme for project years 2010-2011.
role: participant
2. Pre-transmission energy savings in Body Area Networks, project of Serbian-Portugal bilateral cooperation; 2013-2014
role: participant
3. Decoding hidden causes of decisions from brain signals, project of Serbian-French bilateral cooperation 2014-2015
role: coordinator
4. FP7 InnoSense - Reinforcement of BioSense Center – ICT for Sustainability and Eco-Innovation, WP6 leader, 2013-2016
role: Work Package Leader
5. COST TD1405 ENJECT: European Network for the Joint Evaluation of Connected Health Technologies
6. COST CA15120 OpneMultiMed: Open Multiscale Systems Medicine (Management Committee Member for Rep. of Serbia),2016-2020
7. COST CA 18131 Statistical and machine learning techniques in human microbiome studies (Management Committee Member for Rep. of Serbia),2019-2023

MANAGEMENT OF INTERNATIONAL PROJECTS

1. FP7-REGPOT-1-2012 (316191): “InnoSense” (**Work Package Leader**): Reinforcement of BioSense Center – ICT for Sustainability and Eco-Innovation, 2013-2016.
2. COST TD1405 ENJECT: European Network for the Joint Evaluation of Connected Health Technologies (**Management Committee Member for Rep. of Serbia**), 2014-2018.
3. Decoding hidden causes of decisions from brain signals,project of Serbian-French bilateral cooperation 2014-2015
role: **coordinator**
4. COST CA15120 OpneMultiMed: Open Multiscale Systems Medicine (**Management Committee Member for Rep. of Serbia**),2016-2020
5. COST CA 18131 Statistical and machine learning techniques in human microbiome studies (**Management Committee Member for Rep. of Serbia**),2019-2023

NON SCIENTIFIC PROJECT (TEMPUS, ERASMUS, IPA...)

ERASMUS+ KA2 Capacity Building Program

BENEFIT – Boosting the telecommunications engineering profile to meet modern society and industry needs (15 October 2017-14 October 2020)

MENTOR OF PHD STUDENTS

Vladimir Tadic “Gabor filter fuzzification and its application for licence plate detection”, defended in 2018

Currently supervising:

Ivan Lazic, Predrag Lugonja, Vladan Minic, Zeljana Sasic

BOOKS AND CHAPTERS

Chapters in books or monographs:

1. **Tatjana Lončar-Turukalo**, Nina Japundčić Zigon, Olivera Sarenac, Dragana Bajić: Blood pressure and Heart Rate Interactions: Assessment of Spontaneous Baroreceptor Reflex Sensitivity, In Jelinek, H.F., Cornforth, D.J. and Khandoker, A.H.: ECG Time Series Variability Analysis: Engineering and Medicine, CRC Press, September 2015, 450 pages, ISBN 9781482243475
2. Dragana Bajić, Goran Dimić, **Tatjana Lončar-Turukalo**, Branislav Milovanović, Nina Japundžić-Žigon: A Descriptive Approach to Signal Processing, In Jelinek, H.F., Cornforth, D.J. and Khandoker, A.H.: ECG Time Series Variability Analysis: Engineering and Medicine, CRC Press, September 2016, ISBN 9781482243475
3. Serhat Burmaoglu, Vladimir Trajkovik, **Tatjana Lončar-Turukalo**, Haydar Yalcin and Brian Caulfield, "Evolution Map of Wearable Technology Patents for Healthcare Field" in Raymond Kai-Yu Tong (Ed.) Wearable Technology in Medicine and Health Care, pp.275-290, Academic Press (imprint of Elsevier), 2018, ISBN: 978-0-12-811810-8

FULL LIST OF SCIENTIFICS RESULTS

Journal papers

1. Marko Vasić, **Tatjana Lončar-Turukalo**, Tatjana Tasić, Marija Matić, Sofija Glumac, Dragana Bajić, Branka Popović, Nina Japundžić-Žigon,: "Cardiovascular variability and β -ARs gene expression at two stages of doxorubicin – induced cardiomyopathy", Toxicology and Applied Pharmacology 362 (2019) 43–51 [M21 IF3,616]
2. Gorana Mijatović, **Tatjana Lončar-Turukalo**, Emmanuel Procyk, Dragana Bajić," A Novel Approach to Probabilistic Characterisation of Neural Firing Patterns" Journal of Neuroscience Methods, vol. 305 (2018), pp. 67-81 ISSN 0165-0270, [M22 IF 2.554]
3. **Tatjana Lončar-Turukalo**, Marko Vasić, Tatjana Tasić, Gorana Mijatović, Sofija Glumac, Dragana Bajić, Nina Japundžić-Žigon, "**Heart rate dynamics in doxorubicin-induced cardiomyopathy**," Physiological Measurements 36, No.4 (2015) 727–739, print ISSN 0967-3334 [M22 – IF 1,808]
4. Jelena Nikolić, **Tatjana Lončar-Turukalo**, Srdjan Sladojević, Marija Marinković, Zlata Janjić, "**Melanoma risk prediction models**", Vojnosanitetski pregled (Military Medical and Pharmaceutical Journal of Serbia, 2014; 71(8): 757–766. ISSN 0042-8450 [M23 – IF 0,292]
5. Dragana Bajić, **Tatjana Lončar-Turukalo**: "**A simple suboptimal construction of cross-bifix-free codes**," Cryptography and Communications: Volume 6, Issue 1 (2014), Page 27-37, Springer, ISSN 1936-244 [M23 IF 0,828]
6. Aleksandar Boskovic, **Tatjana Lončar-Turukalo**, Olivera Sarenac, Nina Japundžić-Zigon, Dragana Bajić: "**Unbiased entropy estimates in stress: A parameter study**," Computers in Biology and Medicine, 42(6): 667-679, 2012 [M23 IF 1, 240]
7. **Tatjana Lončar Turukalo**, Dragana Bajić, Nina Japundžić-Zigon: „**Temporal Sequence Parameters in Isodistributional Surrogate Data: Model and Exact Expressions**“, IEEE Transactions of Biomedical Engineering, VOL. 58, no. 1, pp. 16-24,2011 [M21 IF2,347]
8. Dragana Bajić, **Tatjana Lončar Turukalo**, Sonja Stojicic, Olivera Sarenac, Tijana Bojic, David Murphy, Julian Paton, Nina Japundžić-Zigon: "**Temporal Analysis of the Spontaneous Baroreceptor Reflex During Mild Emotional Stress**", STRESS, 13(2),pp. 142-154, March 2010 [M22 IF 2,715]
9. **Tatjana Lončar Turukalo**, Snžana Milosavljević, Olivera Šarenac, Nina Japundžić Žigon, Dragana Bajić.: "**Entropy and Gaussianity - Measures of Deterministic Dynamics of Heart Rate and Blood Pressure Signals of Rats**", Acta Polytechnica Hungarica, Journal of Applied Sciences, Budapest Tech, vol.5, No.1, pp.121-133, January 2008 ISSN 1785-8860 [M23 IF 0,649]

10. **Tatjana Lončar-Turukalo**, Nebojsa Bozanic, Laszlo Negyessy, Fulop Baszo, Emmanuel Procyk, Dragana Bajić **“Removal of Action Potential Influence on Local Field Potentials Using Empirical Mode Decomposition”** International Journal of Bioelectromagnetism, Vol. 14, No. 4, pp. 204 - 210, 2012 [M51]
11. **Tatjana Lončar Turukalo**, Branislav Milovanovic, Dragana Bajić, **„Investigating Amiodarone Arrhythmia Treatment“**, International Journal of Bioelectromagnetism Vol.11,No. 3, pp. 108-113; July 2009 [M51]
12. Dragana Bajić, **Tatjana Lončar-Turukalo**, Olijandra Šibarević, **“On Direct Sequential Analysis of HRV Signals”**, Archive of Oncology, Vol.13, No.1, January 2005

Conference papers

1. Ivan Lazić, Nikša Jakovljević, Danica Despotović, **Tatjana Lončar Turukalo**, **„Automatic Detection of Respiratory Effort Related Arousals from Polysomnographic Recordings“**, Proceedings of the **45th Computing in Cardiology Conference**, Maastricht, The Netherlands.
2. Nikša Jakovljević, **Tatjana Lončar Turukalo**, Nataša Prvulović Bunović, Katarina Koprivšek, Olivera Šveljo: **„Sinusoidal coding in evaluation of functional connectivity pattern in resting brain“**, Book of abstracts of the **10th conference of the European Study Group on Cardiovascular Oscillations**, 17-19.09. 2018, Vienna, Austria
3. Vladimir Tadić, Zoltan Kiraly, Željien Trpovski, **Tatjana Lončar Turukalo** and Peter Odry, **„Fuzzified Gabor Filter for Text Recognition in Images“**, Proceedings of **16th International Symposium on Intelligent Systems and Informatics (SISY 2018)**, pp. September 13-15, 2018 in Subotica, Serbia
4. Danica Despotović, Aleksandra Zec, Katarina Mladenović, Nevena Radin, **Tatjana Lončar-Turukalo**: **„Machine Learning Approach to an Early Prediction of Preterm Delivery“**, Proceedings of **16th International Symposium on Intelligent Systems and Informatics (SISY 2018)**, September 13-15, 2018 in Subotica, Serbia
5. **Tatjana Lončar-Turukalo**, Nina Maljković, Sofija Pantović, Sanja Brdar, **„Improving Clustering Performance in Microbiome Studies“**, Book of Abstracts of the second **Belgrade Bioinformatics Conference – BelBi 2018**, in Biologia Serbica, vol. 40, No1, 2018, pp. 115 Belgrade, June, 18-22,2018, pp.
6. Sanja Brdar, **Tatjana Lončar-Turukalo**, Vladimir Crnojević, Blaž Stres, **“ Clustering and classification of human microbiome data: evaluating impact of different settings in bioinformatics workflows“** Book of Abstracts of the second **Belgrade Bioinformatics Conference – BelBi 2018**, in Biologia Serbica, vol. 40, No1, 2018, pp. 67 Belgrade, June, 18-22,2018
7. Vladimir Tadić, Zoltan Kiraly, Željien Trpovski, **Tatjana Lončar Turukalo** and Peter Odry: **„Evolution of Gabor Filter in Application of License Plate Detection“**, **Proceedings of the fifth international conference IcETAN**, pp. , Palic, Serbia
8. Nikša Jakovljević, **Tatjana Lončar Turukalo**: **“ Hidden Markov Model Based Respiratory Sound Classification“**, in N. Maglaveras et al. (eds.), Precision Medicine Powered by pHealth and Connected Health, IFMBE Proceedings 66, Proceedings of ICBHI 2017, **International conference on Biomedical and Health Informatics**, Thessaliniki, Greece 18-21.11.2018.,https://doi.org/10.1007/978-981-10-7419-6_7, pp. 39-43
Second Award at BHI Scientific Challenge on Respiratory Signal Processing
9. Isidora Šašić, Sanja Brdar, **Tatjana Lončar-Turukalo**, Helena Aidos, Ana Fred, **“Consensus Clustering for Cancer Gene Expression Data Large-scale Analysis Using Evidence Accumulation Approach”**, Proceedings of the **10th International Joint Conference on**

10. Simona Djuric, **Tatjana Lončar-Turukalo**, David Dabic, Katarina Koprivšek, Miloš Lučić, Olivera Šveljo, "Temporal Pattern Based Classification of Independent Components in Resting State fMRI", **Proceedings of 13th Symposium on Neural Networks and Applications (NEUREL)**, November 2016, pp.1-4
11. Kristina Vakarov, **Tatjana Lončar-Turukalo**, Katarina Koprivšek, Miloš Lučić, Olivera Šveljo, "fMRI Resting State Analysis Using Empirical Mode Decomposition", **Proceeding of 14th IEEE International Symposium on Intelligent Systems and Informatics SISY 2016**, August 2016, Subotica, Serbia, pp.145-148
12. Srdjan Sladojević, Marko Arsenović, **Tatjana Lončar-Turukalo**, Miroslava Sladojević, Dubravko Čulibrk, "Personalized USB Biosensor Module for Effective ECG Monitoring", **13th International Conference on Wearable, Micro & Nano Technologies for Personalized Health**, 29-31 May, 2017, FORTH, Heraklion, Crete, Greece
13. Monika Papić, Sanja Brdar, Vladimir Papić, **Tatjana Lončar-Turukalo**: "Return to Work After Lumbar Microdiscectomy –Personalizing Approach Through Predictive Modeling," **13th International Conference on Wearable, Micro & Nano Technologies for Personalized Health**, 29-31 May, 2017, FORTH, Heraklion, Crete, Greece
14. **Tatjana Lončar-Turukalo**, Gorana Mijatović, Nebojša Božanić, Frederic M. Stoll, Dragana Bajić, and Emmanuel Procyk: "Time-Frequency Characterization of Local Field Potential in a Decision Making Task", **Proceedings of 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS)**, pp. 5565-5568, 2015, DOI 10.1109/EMBC.2015.7319653
15. Dragana Bajić, **Tatjana Lončar-Turukalo**, Tamara Škoric, Nina Japundžić-Žigon: "Blood pressure and pulse interval coupling: a copula approach", **Proceedings of 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS)**, pp.7696-7699, 2015
16. Gorana Mijatović, **Tatjana Lončar-Turukalo**, Nebojša Božanić, Frederic M. Stoll, Emmanuel Procyk: "Oscillatory dynamics of field potentials in the frontal cortex during decision making", **Proceedings of NETT international conference on system level approaches to neural engineering**, pp.23 Barcelona, Spain, September 2015
17. Marko Vasić, **Tatjana Lončar-Turukalo**, Tatjana Tasić, Sofija Glumac, Dragana Bajić, Nina Japundžić-Žigon "Heart Rate Dynamics and BRS in Doxorubicin-Induced Cardiomyopathy", **The 6th International Symposiumon Noninvasive Electrocardiology NEUROCARD 2014**, Belgrade, Serbia
18. Tamara Čeranić, Branislav Milovanovic, **Tatjana Lončar Turukalo**, Nina Japundžić Žigon, Dragana Bajić "Treshold reliability in cross-entropy estimation", **The 6th International Symposiumon Noninvasive Electrocardiology NEUROCARD 2014**, Belgrade, Serbia
19. Gorana Mijatovic, **Tatjana Lončar Turukalo**, Tatjana Tasic, Nina Japundžić DŽigon, Dragana Bajić "Estimation of baroreflex sensitivity changes in aging animals", **The 6th International Symposiumon Noninvasive Electrocardiology NEUROCARD 2014**, Belgrade, Serbia
20. Gorana Mijatović, **Tatjana Lončar-Turukalo**, Emmanuel Procuk, Dragana Bajić: "Statistical approach to inter-spike interval ramps", **22nd Telecommunications Forum, TELFOR 2014**, Belgrade, Serbia
21. Aleksandar Spasojević, Oliver Stojanov, **Tatjana Lončar Turukalo**, and Olivera Šveljo, "Estimation of Subcutaneous and Visceral Fat Tissue Volume on Abdominal MR Images", **NEUREL 2014**, Belgrade Serbia
22. Gorana Mijatovic, **Tatjana Lončar Turukalo**, Emmanuel. Procyk, Dragana.Bajić: „Error Related Activity in Dorsal Anterior Cingulate Cortex: Time-Frequency and Regularity

Analysis“, **NETT workshop 2014 “Dynamics of Neural circuits”**, Institute for Complex Systems (ISC) CNR, Sesto Fiorentino, Italy, March 17-20, 2014

23. **Tatjana Lončar-Turukalo**, Marko Vasic, Gorana Mijatovic, Nina Japundžić-Žigon, Dragana Bajić: Heart Rate Variability and Baroreceptor Reflex Sensitivity in Doxorubicin-Induced Cardiomyopathy, **Proceedings of 8th Conference of the European Study Group on Cardiovascular Oscillations ESGCO 2014**, pp. 119-120, Trento, Italy, DOI 10.1109/ESGCO.2014.6847548
24. Tamara Čeranić, Branislav Milovanović, Nina Japundžić-Žigon, **Tatjana Lončar Turukalo**, Dragana Bajić: “Automatic Selection of the threshold value r for cross-entropy maximum value”, **15th Congress of the International Society for Holter and Noninvasive Electrocardiology ISHNE**, Timisoara, Rumania, 2013, Vol. 18, pp. 16-16
25. Gorana Mijatovic, **Tatjana Lončar Turukalo**, Procyk Emmanuel, Dragana Bajić: “Comparison of methods for burst detection in neural activity”, **15th Congress of the International Society for Holter and Noninvasive Electrocardiology ISHNE**, May 30 – June 1. 2013, Timisoara, Romania, 31- 32, ISBN 1223-1533
26. Djordje Starcevic, Olivera Sveljo, Spirovski Milena, **Tatjana Lončar-Turukalo**, Vladimir Petrovic: “An approach to right ventricular segmentation in MR images”, **15th Congress of the International Society for Holter and Noninvasive Electrocardiology ISHNE**, Timisoara, Rumania, 2013
27. Gorana Mijatovic, **Tatjana Lončar-Turukalo**, Nina Japundžić-Žigon, Dragana Bajić:” Baroreflex sequences spectrum in aging animals”, **5th International Symposium on Neurocardiology -NEUROCARD 2013**, Belgrade, Serbia, ISSN 2069 – 0169
28. Tamara Čeranić, Branislav Milovanović, **Tatjana Lončar Turukalo**, Nina Japundžić Žigon, Dragana Bajić: “Threshold reliability in cross-entropy estimation”, **5th International Symposium on Neurocardiology -NEUROCARD 2013**, Belgrade, Serbia, ISSN 2069 – 0169
29. Đorđe Starčević, Olivera Šveljo, Spirovski Milena, **Tatjana Lončar-Turukalo**, Vladimir Petrović: “Ventricle segmentation in near-base and near-apex slices of MR images”, **5th International Symposium on Neurocardiology -NEUROCARD 2013**, Belgrade, Serbia, ISSN 2069 – 0169
30. Neda Pištinjat, **Tatjana Lončar Turukalo**: “Detection and quantification of apnea based on ECG and SpO₂”, **5th International Symposium on Neurocardiology -NEUROCARD 2013**, Belgrade, Serbia, ISSN 2069 – 0169
31. Vladimir Ostojic, **Tatjana Lončar Turukalo**: “ Automatic artifact detection and parameterization of blood pressure recordings using EMD” , **5th International Symposium on Neurocardiology -NEUROCARD 2013**, Belgrade, Serbia, ISSN 2069 – 0169
32. Tamara Čeranić, **Tatjana Lončar-Turukalo**, Branislav Milovanović, Nina Japundžić-Žigon, Dragana Bajić, “Cross-Entropy of Systolic Blood Pressure – Pulse Interval: Automatic Threshold and its Reliability,” **Computing in Cardiology 2013**, vol. 40, pp:1219-1222; Zaragoza, Spain
33. Vladimir Ostojic, **Tatjana Lončar-Turukalo**, Dragana Bajić:”Empirical Mode Decomposition Based Real-Time Blood Pressure Delineation and Quality Assessment”, **Computing in Cardiology 2013**, vol. 40, pp. 221-224. ISSN 2325-8861-4, Zaragoza, Spain
34. Gorana Mijatovic, **Tatjana Lončar Turukalo**, Procyk Emmanuel, Dragana Bajić:” Time-Frequency Analysis of Error Related Activity in Anterior Cingulate Cortex”, **XIII Mediterranean Conference on Medical and Biological Engineering and Computing (MEDICON 2013)**, IFMBE Proceedings, Vol. 41,pp.1722-1725; ISBN 978-3-319-00846-2; series, ISSN 1680-0737, Seville, Spain
35. **Tatjana Lončar-Turukalo**, Dragana Bajić “The evaluation of sBRR Sequence Random Occurrences: a Model for Surrogate Data,” **Proceedings of 20th Telecommunication forum TELFOR 2012**,pp. 791-798 invited paper, ISBN 978-1-4637-2982-8

36. Tamara Čeranić, **Tatjana Lončar Turukalo**, Gorana Mijatovic, G. Negyessy, F. Bazso, E. Procyk, J. Minich, D. Bajić, "On memory in the neuronal firing pattern", **Proceedings of the 4th International Symposium on Neurocardiology**, 27-29.09.2012, Belgrade, Serbia
37. **Tatjana Lončar Turukalo**, Nebojsa Bozanic, Laszlo Negyessy, Fulop Bazso, Emmanuel Procyk, Dragana Bajić, "Local field potentials denoising using empirical mode decomposition", **Proceedings of the 4th International Symposium on Neurocardiology, NEUROCARD 2012**, 27-29.09.2012, Belgrade, Serbia
38. Gorana Mijatovic, Tamara Čeranić, **Tatjana Lončar Turukalo**, G. Negyessy, F. Bazso, E. Procyk, J. Minich, D. Bajić, "Modeling the neural spike intervals", **Proceedings of the 4th International Symposium on Neurocardiology, NEUROCARD 2012** 27-29.09.2012, Belgrade, Serbia
39. Tamara Čeranić. **Tatjana Lončar Turukalo**, Laszlo Negyessy, Emmanuel Procyk, Dragana Bajić, "Multifractal Detrended Fluctuation Analysis and Local Scale Exponents of Inter Spike Intervals", **Proceedings of 10th International Symposium on Intelligent Systems and Informatics, SISY 2012** pp.519-524, 20-22 September 2012, Subotica, Serbia, ISBN 978-1-4673-4750-1
40. Gorana Mijatović, **Tatjana Lončar Turukalo**, Laszlo Negyessy, Fulop Bazso, Emmanuel Procyk, Lasylo Zalanyi, Janos Minich, Dragana Bajić, "Explicit Markov counting model of inter-spike interval time series", **Proceedings of 10th International Symposium on Intelligent Systems and Informatics, SISY 2012** pp. 311-315, 20-22 September 2012, Subotica, Serbia, ISBN 978-1-4673-4750-1
41. Nebojsa Božanic, **Tatjana Ločar Turukalo**, Laszlo Negyessy, Fulop Bazso, Emmanuel Procyk, Dragana Bajić, Removal of Action Potential Influence on Local Field Potentials Using Empirical Mode Decomposition, **Proceedings VII International Workshop on Biosignal Interpretation, BSI2012**, pp 149-152, 4-6.07.2012, Como Italy
42. **Tatjana Ločar Turukalo**, Olivera Šarenac, Sanja Milutinović-Smiljanić, Nina Japundžić-Žigon, Dragana Bajić, "Hilbert-Huang transform for analysis of cardiovascular autonomic control in freely moving rats", **Proceedings of 7th Conference of the European Study Group on Cardiovascular Oscillations, ESGCO 2012** vol. 2 pp. 22-25, April, Kazimierz Dolny, Poland, ISBN 978-83-934693-0-7
43. Omar Mohamoud, **Tatjana Lončar Turukalo**, Olivera Šarenac, Nina Japundžić-Žigon, Dragana Bajić "On symbol entropy of joint time series", **Proceedings of 7th Conference of the European Study Group on Cardiovascular Oscillations, ESGCO2012** vol. 2 pp. 22-25, April, Kazimierz Dolny, Poland, ISBN 978-83-934693-0-7
44. **Tatjana Lončar Turukalo**, Janos Minich, Mihaly Banyai, Fulop Bazso, Peter Odry, Laszlo Negyessy, Dragana Bajić, "On ramp statistics in ISI time series", **5th European Conference of the International Federation for Medical and Biological Engineering and Computing**, September., Budapest, 2011
45. Aleksandar Boskovic, **Tatjana. Lončar Turukalo**, Nina. Japundžić-Žigon, Dragana. Bajić, "The flip-flop effect in entropy estimation", **Proceedings of 9th International Symposium on Intelligent Systems and Informatics, SISY 2011**, pp.227-230; 10-11 September 2011, Subotica, Serbia
46. Dragana Bajić, **Tatjana Lončar-Turukalo**, Branislav Milovanovic: "Biomedical signals in BANs: pre-channel issues", **Invited paper, European Wireless**, Wien, Austria, 24-26 April 2011.
47. **Tatjana Lončar-Turukalo**, Branislav Milovanovic, Dragana Bajić: "Entropy and delayed vector variance analysis of cardiovascular variability in post myocardial infarction patients", **Cardiology Meets Physics & Mathematics Workshop**, Koscielisko, Poland 24-26.03.2011.
48. **Tatjana Lončar-Turukalo**, Branislav Milovanovic, Dragana Bajić: "Joint order pattern analysis in post myocardial infarction patients", **Cardiology Meets Physics & Mathematics Workshop**, Koscielisko, Poland 24-26.03.2011.

49. **Tatjana Lončar Turukalo**, Dragana Bajić: "sBRR sequence Spectrum and Entropy", **Proceedings of 2nd International Symposium on Neurocardiology, NEUROCARD 2010**, 30.09-2.10. 2010, Belgrade, Serbia
50. **Tatjana Lončar Turukalo**, Sanja Milutinovic-Smiljanic, Nina Japundzic Žigon, Dragana Bajić: "Joint Order Pattern Analysis to Assess Baroreflex Coupling of SBP and PI Series in Rats", **Proceedings of Computing in Cardiology 2010**, pp. 249-251, vol. 37, ISSN 0276-6574; 25-29.09. Belfast, Northern Ireland, Great Britain
51. Stevan Jokic, Srdjan Krco, Dejan Sakac, Zoran Lukic, Vlado Delic, **Tatjana Lončar Turukalo**: "An Efficient Approach for Heartbeat Classification"; **Proceedings of Computing in Cardiology 2010**, pp.991-994; vol. 37; ISSN 0276-6574;25-29.09. Belfast, Northern Ireland, Great Britain
52. **Tatjana Lončar Turukalo**, Branislav Milovanovic, Dragana Bajić:"Markov Model and Entropy of Sequencies in Isodistributional Surrogate Data", **Proceedings of 8th International Symposium on Intelligent Systems and Informatics, SISY 2010** pp. 53-56; 10-11 September 2010, Subotica, Serbia
53. **Tatjana Lončar Turukalo**, Branislav Milovanovic, Dragana Bajić, Explicit Markov Model and Entropy of Spontaneous Baroreflex Sequences, **Proceeding of 6th Conference of the European Study Group on Cardiovascular Oscillations, ESGCO2010**, Berlin, Germany
54. **Tatjana Lončar-Turukalo**, Aleksandar Boskovic, Olivera Sarenac, Nina.Japundzic-Žigon, Dragana Bajić: "Parameter Selection in Approximate and Sample Entropy-Complexity of Acute and Chronic Stress Response " **IFBME Proceedongs of 12th Mediterranean Conference on Medical and Biological Engineering and Computing, MEDICON 2010**, IFMBE Proceedings 29, pp 136-139., Springer, ISSN 1680-0737, ISBN 978-3-642-13038-0
55. **Tatjana Lončar Turukalo**, Olivera Šarenac, Nina Japundžić Žigon, Dragana Bajić: "Multiscale and moving average Entropy: Statistical Dependence in Stressed Subjects"; **Proceedings of 7th International Symposium on Intelligent Systems and Informatics, SISY 2009**, pp. 247-252, ISBN 978-1-4244-5348-1, 2009, Subotica, Serbia
56. **Tatjana Lončar Turukalo**, Nina Japundžić Žigon, Olivera Šarenac, Dragana Bajić: "On exact number of baroreflex sequences in surrogate data sets", **Proceedings of Computers in Cardiology Conference**, Vol. 36, pp. 425-428;ISSN 0276-6574,ISBN: 978-1-4244-7281-9, Salt Lake City,USA
57. **Tatjana Lončar Turukalo**, Dragana Bajić, Olivera Šarenac, Nina Japundžić Žigon, Bošković Aleksandar: "Environmental stress: Approximate Entropy approach revisited", **Proceedings of 31st Annual International Conference of the IEEE Engineering in medicine and Biology Society**, pp. 1804-1807, 2-6 September 2009, Minneapolis, Minnesota, USA, ISBN 978-1-4244-3296-7
58. **Tatjana Lončar Turukalo**, Dragana Bajić, Branislav Milovanović: "Investigating amiodarone arrhythmia treatment", **Proceedings of Biosignal Interpretation conference, BSI 2009**, pp. 183-186; June 2009, New Haven. CT, USA; ISBN.978-4-990268-5-1
59. **Tatjana Lončar Turukalo**, Dragana Bajić, Nina Japundžić Žigon: " The Evaluation of Local and Global Approaches in Assessment of Baroreflex Sensitivity using Sequence Technique", **Proceedings of 6th International Symposium on Intelligent Systems and Informatics**, pp: 1-4, ISBN 978-1-4244-2406-1, Serbia, 2008
60. Olivera Šarenac, Srdja Drakulic, Maja Lozić, **Tatjana Lončar Turukalo**, Dragana Bajić, Nina Japundzic Žigon: " Temporal Analysis of the Spontaneous Baroreceptor Reflex during Acute and Chronic Shaker Stress in Freely Moving Rats", **Proceedings of 35th Annual Computers in Cardiology Conference 2008**; 35; pp.813-816; ISSN: 0276-6574; ISBN: 978-1-4244-3706-1, 14/17 September 2008, Bologna, Italy
61. **Tatjana Lončar Turukalo**, Dragana Bajić, Nina Japundžić Žigon: "Cardiovascular Response to Acute Stress in Freely Moving Rats: Time Frequency Analysis", **Proceedings of 30th Annual International Conference of the IEEE Engineering in Medicine and**

Biology Society, pp. 2614-2617; ISSN: 1557-170X, ISBN: 978-1-4244-1814-5 ,
20/24 August 2008, Vancouver BC, Canada

62. Dragana Bajić, Sonja Stojicic, Olivera Sarenac, **Tatjana Lončar-Turukalo**, Tijana Bojic, Nina Japundzic-Žigon: "Temporal Analysis of Spontaneous Baroreceptor Reflex during Emotional Stress in Freely Moving Rats", **5th Conference of the European Study Group of Cardiovascular Oscillations, ESCGO2008**, O12-5 – O12-8, 7-9 April 2008, Parma, Italy
63. **Tatjana Lončar-Turukalo**, Sanja Milosavljević, Olivera Šarenac, Nina Japundžic-Žigon, Dragana Bajić: "Entropy and Gaussianity - Measures of Deterministic Dynamics of Heart Rate", **5th International Symposium on Intelligent Systems and Informatics SISY2007**, pp: 25-28 ;ISBN: 978-1-4244-1442-0 ,2007, 24-25 August 2007, Subotica, Serbia
64. Damir Varga, **Tatjana Lončar-Turukalo**, Sanja Milosavljević, Olivera Šarenac , Nina Japundzic-Žigon, Dragana Bajić: "Symbolic Dynamic Analysis of Heart Rate and Blood Pressure in Rats", **5th International Symposium on Intelligent Systems and Informatics SISY2007**, pp: 193-196, Print ISBN: 978-1-4244-1442-0 , 2007, 24-25 August 2007, Subotica, Serbia
65. Damir Varga, **Tatjana Lončar-Turukalo**, Dragana Bajić, Sanja Milutinović, Nina Japundžić Žigon, "Joint Symbolic Dynamics of Cardiovascular Time Series of Rats", **11-th Mediterranean Conference on Medical and Biological Engineering and Computing MEDICON, IFMBE Proceedings** vol. 16, pp:773-776 , ISBN 978-3-540-73043-9, June 2007, Ljubljana, Slovenija
66. **Tatjana Lončar-Turukalo**, Vladimir Crnojević, Željko Trpovski "Image Decomposition into Bit Planes and Lossy Image Compression", **Proceedings of the 5th International Conference on Telecommunications in Modern Satellite, Cable and Broadcasting Services**, vol. 2 pp: 419-422, Print ISBN:0-7803-7228-X, 19-21 September 2001, Nis, Serbia

Technical solutions

M85 – Prototype, new method, software, standardized or attested instrument

1. Dragana Bajić, **Tatjana Lončar-Turukalo** "Replacement of control baroreflex surrogate tests with simple software tool", 2010
2. Vladimir Ostojić, **Tatjana Lončar-Turukalo**, Dragana Bajić "ABP delineation using EEMD decomposition", 2013
3. Tamara Škorić, Dragana Bajić, **Tatjana Lončar-Turukalo** "Automatic threshold assessment for cross-entropy analysis of coupled biomedical series", 2013