

P.P. Chamanthi R. Karunasekara

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Work Experience

- 2017 Jan – Present **Senior Lecturer (Grade II)** Department of Electrical, Electronic and Telecommunication Engineering, General Sir John Kotelawala Defence University, Sri Lanka.
Coordinator – Biomedical Engineering Degree Program (2017 Sep – 2018 June)
- 2009 Feb – 2010 Jul **Lecturer (Contract-basis)**, Department of Electronic and Telecommunication Engineering, University of Moratuwa, Sri Lanka.
- 2009 Oct – 2010 May **Visiting Lecturer**, Electromagnetic Fields and Networks, Part II of IESL Engineering Course, Institution of Engineers Sri Lanka (IESL).
- 2007 Nov - 2009 Jan **Engineer**, Network Systems, Mobitel (Pvt) Ltd, Sri Lanka.
- 2007 May - 2007 Nov **Visiting Instructor**, Department of Electronic and Telecommunication Engineering, University of Moratuwa, Sri Lanka for EN2010 Principles of Electronics.
- 2006 Feb - 2006 Aug **Engineering Trainee**, Suntel Limited, Sri Lanka.

Education

- 2013 Jan – 2016 Apr **PhD in Cognitive and Brain Sciences** at Fondazione Istituto Italiano di Tecnologia, Italy and University of Trento, Italy (Early stage researcher of the Adaptive Brain Computations (ABC) FP7 ITN).
- 2010 Sep – 2012 Aug **MSc in Biomedical Engineering**, 2nd year of CEMACUBE (Common European MAster's CoUrse in Biomedical Engineering), University of Groningen (The Netherlands) and Trinity College Dublin (Ireland), cum laude.
- 2010 Sep – 2011 Aug **MSc in Bioengineering**, Trinity College Dublin, Ireland, 1st year of CEMACUBE.
- 2003 Jun – 2007 Nov **BSc (Hons) in Electronic and Telecommunication Engineering**, University of Moratuwa, Sri Lanka, First Class.

Publications and Presentations

- Warnakulasuriya A.S., Karunarathna S.D., **Karunasekara P.P.C.R.** (2018, September 13 - 14) *Braille Blood Pressure Interpreter for Home Blood Pressure Measurement for Visually Challenged Individuals* Paper presented at the 11th KDU International Research Conference.
- Dayawansa, I., Wijenayake, C. Edussooriya, C., Samarasekara, T., **Karunasekara, C.**, Dias, D., Samarasinghe, K., Kulasekera, C., Rodrigo, R., Dayananda, N. (2018) Blended induction program for electronic engineering freshmen, *International Journal of Electrical Engineering Education.*, 55(4), pp. 354–366. doi: 10.1177/0020720918775034.
- **Karunasekara, P.P.C.R.**, Delis, I., Cavallari, S., Sakata, S., Onken, A., Panzeri, S. (In preparation) Extension of non-negative matrix factorization to model variability in neural spike trains for concurrent spatial and temporal analysis of large recordings.
- Onken A., Liu J.K., **Karunasekara P.P.C.R.**, Delis I., Gollisch T., Panzeri S. (2016) Using Non-Negative Matrix Factorization for the Single-Trial Analysis of Population Spike Trains, *PLoS Comput Biol.*, 12(11): e1005189. doi:10.1371/journal.pcbi.1005189.
- Onken, A., **Karunasekara, P.P.C.R.**, Kayser, C., Panzeri, S. (2014) Understanding Neural Population Coding: Information Theoretic Insights from the Auditory System, *Advances in Neuroscience*, 2014 (907851). doi:10.1155/2014/907851.

- **Karunasekara, P.P.C.R.**, Onken, A., Delis, I., Cavallari, S., Sakata, S., Panzeri, S. (2014, October 6 - 10) Using non-negative matrix factorization to study cortical spike trains: validation on network simulations and auditory responses Poster session presented at the 11th International Workshop on Neural Coding, Paris, France.
- **Karunasekara, P.P.C.R.**, Delis, I., Sakata, S., Panzeri, S. (2014, June 25 - 29) Analysing a large neural population concurrently in space and time through non-negative matrix factorization Poster session presented at AREADNE 2014 Research in Encoding and Decoding of Neural Ensembles, Santorini, Greece.
- **Karunasekara P.P.C.R.**, Hermann S., Reilly R.B. (2012, February 9) Wavelet based Segmentation of Ballistocardiogram. Paper presented at the Monthly Research Seminar of the Department of Electronic and Telecommunication Engineering, University of Moratuwa, Sri Lanka.
- **Karunasekara P.P.C.R.**, Dissanayake M. M., Nanayakkara N.D. (2009, December 28 - 31) *An Interactive Cadaver Dissection Simulator*, Paper presented at the International Conference on Industrial and Information Systems. doi: 10.1109/ICIINFS.2009.5429850.
- Dissanayake S.D., **Karunasekara P.P.C.R.**, Lakmanarachchi D.D., Rathnayaka A.J.D., Samarasinghe A.T.L.K. (2008, December 12 - 14) *Zigbee Wireless Vehicular Identification and Authentication System*. Paper presented at the International Conference on Information and Automation for Sustainability. doi: 10.1109/ICIAFS.2008.4783998.

Workshops & meetings

- ABC final meeting, 24th – 25th May, Amsterdam, The Netherlands, 2016.
- ABC Computational methods workshop, 8th – 10th June, Rovereto, Italy, 2015.
- Concepts, Actions and Objects (CAOs) workshop, 8th - 11th May, Rovereto, Italy, 2014.
- ABC Physiological methods workshop, 31st March - 2nd April, Leuven, Belgium, 2014.
- ABC Analytical methods workshop, 2nd - 5th September, Oldenburg, Germany, 2013.
- ABC Conference on Brain Plasticity, 24th – 26th June, Oxford, UK, 2013.
- ABC Brain imaging workshop, 2nd - 5th April, Maastricht, The Netherlands, 2013.

Fellowships and scholarships

2013 – 2015	Marie Curie Early Researcher fellowship for Adaptive Brain Computations network
2010 - 2012	Category A Erasmus Mundus Scholarship for CEMACUBE (Common European MAster's CoUrse in Biomedical Engineering)

Memberships

- Associate Member, Institution of Engineers Sri Lanka (IESL)