CURRICULUM VITAE

Name Mr.Theeasak Chanwimalueang

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Educational Background

2013-2018 Ph.D. in Electrical and Electronic Engineering, Imperial College London. **Thesis title: "Bringing Complexity Science to Real World: Quantification of Stress in Humans and Systems",**

2005-2007 M.Eng. in Biomedical Electronics Engineering
King Mongkut's Institute of Technology Ladkrabang, Thailand.
Thesis tile: "Improved Cone-beam X-Ray Tomography for Arbitrarily-Oriented Tube",

1996-2000 B. Eng. In Electrical Engineering
Khon Kaen University, Thailand. **Thesis tile: "A Study of Active Noise Cancellation in a Closed System".**

Experiences

2008-2012 Lecturer at Department of Biomedical Engineering, Faculty of Engineering, Srinakharinwirot University, Thailand,

2006-2007 Research assistant position under the project "Development of Switching Electrophoresis for medical laboratory", Department of Allied Health Science Thammasat University Thailand granted by Nation Research Council of Thailand (NRCT),

2005-2006 Research assistant position under the project "3 D-Modeling of Bone from X-ray Radiograph and Fluorograph", Department of Electronics, Faculty of Engineering, King Mongkut's Institute of Technology Ladkrabang granted by National Science and Technology Development Agency (NSTDA).

Research projects

2009-2010 "ECG Monitoring System via Ethernet" funded by Faculty of Engineering, Srinakharinwirot University,

2008-2009 "Patient Surface Electromyogram Acquisition and Signal Processing" funded by by Faculty of Engineering, Srinakharinwirot University,

2008-2009 "Development of Agility Training Kit for Sport Persons" funded by Sport Authority of Thailand.

Qualification

Associate Electrical Engineer (Power) License of Thailand Council of Engineers.

Fields of Interest

- Analog and digital circuit design,
- Microcontroller, microprocessor, Interfacing, embedded systems,
- Medical instruments (X-ray, CT, MRI, ECG, EEG, EMG, EOG),
- Heart rate variability analysis, state of body and mind quantification,
- Digital signal processing, biomedical signal processing medical imaging
- Complexity science, nonlinear analysis.

Selected Publications

[1] Tricia Adjei, Wilhelm Von Rosenberg, Takashi Nakamura, Theerasak Chanwimalueang and Danilo P. Mandic, The ClassA Framework: HRV Based Assessment of SNS and PNS Dynamics Without LF-HF Controversies, Frontiers in Physiology [Q2], vol 10, 505, p1-15, 2019.

[2] Bo Wu, Yangde Gao, Songlin Feng and Theerasak Chanwimalueang, "Sparse Optimistic Based on Lasso-LSQR and Minimum Entropy De-Convolution with FARIMA for the Remaining Useful Life Prediction of Machinery". Entropy [Q2], 20, 747, 2018.

[3] T. Chanwimalueang and Danilo P. Mandic, "Cosine Similarity Entropy: Self-Correlation-Based Complexity Analysis of Dynamical Systems". Entropy [Q2], 19, 652, 2017.

[4] T. Chanwimalueang, L. Aufegger, T. Adjei, D. Wasley, C. Cruder, D. P. Mandic, and A. Williamon, “Stage call: Cardiovascular reactivity to audition stress in musicians,” PLOS ONE [Q1], vol. 12, no. 4, pp. 1-14, 2017.

[5] A. Hemakom, T. Chanwimalueang, A. C. Garcí a, L. Aufegger, A. G. Constantinides, and D. P. Mandic, “Financial stress through complexity science,” IEEE Journal of Selected Topics in Signal Processing [Q1], vol. 10, no. 6, pp. 1112-1126, 2016.

[6] M. U. Ahmed, T. Chanwimalueang, S. Thyyil, and D. P. Mandic, “A Multivariate Multiscale Fuzzy Entropy Algorithm with Application to Uterine EMG Complexity Analysis,” Entropy [Q2], vol. 19, no. 1(2), pp. 1-18, 2016.

[7] W. Von Rosenberg, T. Chanwimalueang, V. Goverdovsky, D. Looney, D. Sharp, D. P. Mandic, “Smart helmet: Wearable multichannel ECG and EEG,” IEEE Journal of Translational Engineering in Health and Medicine [Q2], vol. 4, pp. 1-11, 2016.

[8] W. Von Rosenberg, T. Chanwimalueang, A. Tricia, J. Usman, V. Goverdovsky, D. P. Mandic, “Resolving ambiguities in the LF/HF ratio: LF-HF scatter plots for the categorization of mental and physical stress from HRV,” Frontiers in Physiology [Q1], vol. 8, no. 360, pp. 1-12, 2017.

[9] W. Von Rosenberg, T. Chanwimalueang, V. Goverdovsky, N. S. Peters, C. Papavassiliou, D. P. Mandic, “Hearables: feasibility of recording cardiac rhythms from head and in-ear locations,” Royal Society Open Science, 2017 vol.4, no. 11, pp.1-13, 2017.

[10] Y. Tonoyan, T. Chanwimalueang, D.P. Mandic, M.M. Van Hulle, “Discrimination of emotional states from scalp- and intracranial EEG using multiscale Rényi entropy,” PLOS ONE [Q1, Impact Factor: 2.806], vol 12, no. 11: e0186916. https://doi.org/10.1371/journal.pone.0186916, 2017

References

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