Curriculum Vitae
Suchada Tantisatirapong

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Education

2015: Doctor of Philosophy (Biomedical Engineering)
School of Electronic, Electrical and Computer Engineering
College of Engineering and Physical Sciences
University of Birmingham, United Kingdom

2007: Master of Engineering Science (Biomedical Engineering)
Graduate School of Biomedical Engineering
University of New South Wales, Australia

2006: Bachelor of Engineering (Computer Engineering)
Department of Electrical and Computer Engineering
National University of Singapore, Singapore

2002: Bridging Course, National University of Singapore, Singapore

Work Experience

2017 - present: Assistant Professor, Department of Biomedical Engineering, Faculty of Engineering, Srinakharinwirot University, Thailand.

2017 - present: President Program Director of Bachelor of Engineering Program in Biomedical Engineering Program.

2007 - 2017: Lecturer, Department of Biomedical Engineering, Faculty of Engineering, Srinakharinwirot University, Thailand.

Awards and Honors

2018: Awarded young researcher from Faculty of Engineering, Srinakharinwirot University.

2017: Appointed Assistant Professor of Computer Engineering at Srinakharinwirot University.

2010-2014: Received the Royal Thai Government Scholarship (National Science and Technology Development) for Doctor of Philosophy Study.

2001-2007: Received the Royal Thai Government Scholarship for Undergraduate and Postgraduate Studies.

Research Interests

Medical Image Processing (e.g. MRI image processing)
Physiological Signal Processing (e.g. EEG and EMG signal processing)
Human-Machine Interaction (e.g. visual spelling)

Current Research Projects

1. Development and Evaluation of Cognitive Training Game for Thai Elderly
2. Tremor Detector on Mobile Applications
3. Thai Musical Instrument integrated with Binaural Beat for Stress Therapy
4. Lossless Compression of Whole Slide Pathology Images

Teaching courses

English for Specific Purposes in Biomedical Engineering II (BME204)
Software Design and Development (BME240)
Medical Signal and Image Processing (BME420)
Biomedical Engineering Laboratory I (BME201)
Biomedical Engineering Laboratory II (BME300)
Biomedical Engineering Laboratory III (BME301)
Biomedical Engineering Research Project I (BME490)
Biomedical Engineering Research Project II (BME491)
Advanced Medical Image Processing (BME504)
Advanced Biomedical Engineering (BME501)
Research Seminar for Biomedical Engineering 2 (BME699)

Publications

Book Chapter

Tantisatirapong, S. ed, (2017). Chapter 3 Basic Principles of Magnetic Resonance Imaging. In: Biomedical Engineering. Bangkok:ThaiBME.org, pp.29-46.

Journals

1. S. Tantisatirapong, P. Puttapirat, W. Senavongse, and T. Chanwimalueang, “The Design of Cognitive Training Games for the Thai Elderly”, ECTI-EEC, vol. 19, no. 3, pp. 289–297, Oct. 2021
2. P. Pornpreedawan, K. Puengsiricharoen, S. Tantisatirapong, R. Taweerutchana, and D. Sueaseenak, “A Bed-Fall Notification System Using Pressure and Ultrasonic Sensors”, CAST, 2021 (in press).
3. S. Tantisatirapong and W. Preedanan, “Texture Based Classification of Malaria Parasites from Giemsa-Stained Thin Blood Films”, ECTI-EEC, vol. 18, no. 1, pp. 9-16, Feb. 2020.
4. S. Noimanee, W. Senavongse, S. Tantisatirapong and K. Noimanee, Implement of medical application over high speed wireless broadband network system in Thailand. *International Journal of Applied Biomedical Engineering*, vol 8., no.1, 2015.
5. W. Senavongse, S. Tantisatirapong, Patellofemoral Joint Instability: A Biomechanical Study. *International Journal of Applied Biomedical Engineering*, vol.1, no.1, July-December 2008.

International Conferences

1. M. Phothisonothai and S. Tantisatirapong, "Fractal Dimension Based Color Texture Analysis for Mangosteen Ripeness Grading," 2019 International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS), Taipei, Taiwan, 2019, pp. 1-2.

2. T. Liamsuwan, S. Tantisatirapong, P. Tangboonduangjit , "CTScanTool, a semi-automated organ segmentation tool for radiotherapy treatment planning, " Journal of Physics: Conference Series. 2019;1285:012027.
3. M. Phothisonothai and S. Tantisatirapong, "Integrated Human-Machine Interaction System: ERP-SSVEP and Eye Tracking Based Technologies," 2019 11th International Conference on Knowledge and Smart Technology (KST), Phuket, Thailand, 2019, pp. 244-248.
4. S. Tantisatirapong and M. Phothisonothai, "Design of User-Friendly Virtual Thai Keyboard Based on Eye-Tracking Controlled System," 2018 18th International Symposium on Communications and Information Technologies (ISCIT), Bangkok, 2018, pp. 359-362.
5. S. Tantisatirapong, C. Prasoproek and M. Phothisonothai, "Comparison of Feature Extraction for Accent Dependent Thai Speech Recognition System," 2018 IEEE Seventh International Conference on Communications and Electronics (ICCE), Hue, 2018, pp. 322-325.
6. S. Tantisatirapong and M. Phothisonothai, "Classification of In Vitro Blood Stages of Plasmodium Falciparum Based on Fuzzy Inference System," 2018 10th International Conference on Knowledge and Smart Technology (KST), Chiang Mai, 2018, pp. 293-296.
7. A. Acharya, M. Phothisonothai and S. Tantisatirapong, "Surface Roughness Classification of Mangosteen with Gray Level Co-occurrence Matrix based Texture Analysis," 2018 22nd International Computer Science and Engineering Conference (ICSEC), Chiang Mai, Thailand, 2018, pp. 1-4.
8. S. Tantisatirapong, P. Dechwechprasit, W. Senavongse and M. Phothisonothai, "Time-frequency based coherence analysis of red and green flickering visual stimuli for EEG-controlled applications," 2017 9th International Conference on Knowledge and Smart Technology (KST), Chonburi, 2017, pp. 279-283.
9. P. Dechwechprasit, M. Phothisonothai and S. Tantisatirapong, "Time-frequency analysis of red-green visual flickers based on steady-state visual evoked potential recording," 2016 9th Biomedical Engineering International Conference (BMEiCON), Laung Prabang, 2016, pp. 1-4.
10. M. Phothisonothai, S. Tantisatirapong and A. Aurasopon, "Automated determination of watermelon ripeness based on image color segmentation and rind texture analysis," 2016 International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS), Phuket, 2016, pp. 1-5.
11. P. Puttapirat, M. Phothisonothai and S. Tantisatirapong, "Automated segmentation of erythrocytes from Giemsa-stained thin blood films," 2016 8th International Conference on Knowledge and Smart Technology (KST), Chiangmai, 2016, pp. 219-223.
12. W. Preedanan, M. Phothisonothai, W. Senavongse and S. Tantisatirapong, "Automated detection of plasmodium falciparum from Giemsa-stained thin blood films," 2016 8th International Conference on Knowledge and Smart Technology (KST), Chiangmai, 2016, pp. 215-218.
13. S. Tantisatirapong, N.P. Davies, D. Rodriguez, L. Abernethy, D.P. Auer, C.A. Clark et al., Combining multi-centre conventional and diffusion MR texture for the characterisation of childhood brain tumours. *Joint Annual Meeting ISMRM-ESMRMB*; Milan, Italy, 2014.
14. S. Tantisatirapong, N.P. Davies, D. Rodriguez, L. Abernethy, D.P. Auer, C.A. Clark et al. Magnetic resonance texture analysis: Optimal feature selection in classifying child brain tumors. *XIII Mediterranean Conference on Medical and Biological Engineering and Computing*, Seville, Spain: Springer; 2013. pp. 309-12.

15. S. Tantisatirapong, N.P. Davies, L. Abernethy, D.P. Auer, C.A. Clark, R. Grundy et al. Automated processing pipeline for texture analysis of childhood brain tumours based on multimodal magnetic resonance imaging. *10th IASTED International Conference on Biomedical Engineering*; Innsbruck, Austria: ACTA Press; 2013. pp. 376-83.
16. S. Tantisatirapong, N.P. Davies, A.C. Peet, T.N. Arvanitis, Brain tumour segmentation based on multimodal magnetic resonance imaging in children. *21st British Chapter ISMRM Postgraduate Symposium*, University of Bristol, Bristol, United Kingdom, 2012.
17. S. Tantisatirapong, W. Senavongse and M. Phothisonothai, "Fractal dimension based electroencephalogram analysis of drowsiness patterns," ECTI-CON2010: The 2010 ECTI International Confernce on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology, Chiang Mai, 2010, pp. 497-500.