

Tasawan Puttasakul, PhD

ACADAMIC TITLE Assistant Professor
CURRENT POSITION (2009 - present): Lecturer (College of biomedical engineering, Rangsit University)

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EDUCATION

Doctor of Philosophy (2016 - 2020)

Biomedical Engineering, King Mongkut's Institute of Technology Ladkrabang, Thailand

Master of Engineering (2007 – 2009)

Biomedical Electronics Engineering, King Mongkut's Institute of Technology Ladkrabang, Thailand

Bachelor of Science (2003 – 2006)

Physics-Electronics with 2nd class Hons, Naresuan University, Thailand

INTERESTED BRANCH

Biomedical signal processing, Biomedical image processing, Biosensor.

PUBLICATIONS

Journal

- 1) **T. Puttasakul**, C. Tancharoen, W. Sukjee and C. Sangma, "Vapor-Phase Substrate Nitroreductase Reaction and Its Application as TNT Electrochemical Gas Sensor," in IEEE Sensors Journal, vol. 22, no. 23, pp. 22368-22373, 1 Dec.1, 2022,
- 2) Chotikunnan, P., **T. Puttasakul**, et al (2023). "Evaluation of Single and Dual image Object Detection through Image Segmentation Using ResNet18 in Robotic Vision Applications", Journal of Robotics and Control (JRC). Vol. 4, Issue 3, pp. 263-277.
- 3) **Puttasakul, T.**, Pintavirooj, C., Sangma, C., Sukjee, W. (2019). Hydrogel Based-Electrochemical Gas Sensor for Explosive Material Detection, IEEE Sensors Journal, Vol. 19, Issue 19, pp. 8556-8562.

International Proceeding

- 1) **T. Puttasakul**, J. Auttakunchai and P. Kawilo, "Classification of Angle of Eye Movement using Electrooculography with LED testing sphere," 2022 International Electrical Engineering Congress (iEECON), 2022, pp. 1-4.
- 2) **T. Puttasakul**, W. Sukjee, C. Pintavirooj and C. Sangma, "IDE Gas Sensor Based Dengue Virus Co-imprinting for Detection of 2,4,6-Trinitrotoluene," 2021 9th International Electrical Engineering Congress (iEECON), 2021, pp. 555-558.
- 3) **T. Puttasakul**, C. Tancharoen, W. Sukjee, C. Pintavirooj and C. Sangma, "Detection of 2,4,6-Trinitrotoluene by MIP-composite Based Electrochemical Sensor," 2021 9th International Electrical Engineering Congress (iEECON), 2021, pp. 559-562
- 4) O'Reilly, J. A., tanpradit, S., **Puttasakul, T.**, Sangworasil, M., Matsuura, T., Wibulpolprasert, P., Chousangsunton, K. (2019). Automatic segmentation of polycystic kidneys from magnetic resonance images using decision tree classification and snake algorithm. The 2019 Biomedical Engineering International Conference (BMEiCON-2019) 19-22 November 2019

- 5) O'Reilly, J., Tanpradit, S., **Puttasakul, T.**, Sangworasil, M., Matsuura, T., Chousangsuntorn, K., Wibulpolprasert, P. Automatic segmentation of polycystic kidneys from magnetic resonance images using a three-dimensional fully-conventional network, In RSU International Research Conference 2020, 1st MAY 2020, RANGSIT UNIVERSITY, THAILAND.
- 6) Chantararat, T., O'Reilly, J., **Puttasakul, T.**, Sangworasil, M., Matsuura, T. (2020). The simulation of electromyography signals by two muscles to continuous control a robotic arm showing gesture mimics the human arm wireless model, In RSU International Research Conference 2020, 1st MAY 2020, RANGSIT UNIVERSITY, THAILAND
- 7) **T. Puttasakul**, K. Pumjaroen, T. Trakunjanthrasiri and J. Auttakunchai. "Evaluation of Human Hand Movement for Office Syndrome". 15th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON 2018), July 18-21 2018. Chiang Rai, Thailand.
- 8) **T. Puttasakul**, K. Archawut, T. Matsuura, P. Thumwarin, S. Airphaiboon. "Electrooculogram Identification from Eye Movement Based on FIR System". The 9th Biomedical Engineering International Conference (BMEICON 2016), December 7-9 2016. Laung Prabang, LAOS.
- 9) **T. Puttasakul**, M. Sangworasil, T. Matsuura. "[Realization of robust real time robotic arm control system based on EMG signal](#)". The 8th Biomedical Engineering International Conference (BMEICON 2015), November 25- 27 2015. Pattaya, Thailand.
- 10) **T. Puttasakul**, M. Sangworasil, T. Matsuura, "Feature Extraction of Wavelet Transform Coefficients for sEMG Classification". The 7th Biomedical Engineering International Conference (BMEICON 2014) November 26-28, 2014, Fukuoka, Japan.
- 11) **Tasawan Puttasakul**, Supatra Wannasuk, Manas Sangworasil. " Compression Depth Estimation for CPR Manikin Based on Accelerometers" ,^{6th} International Science,

SocialSciences, Engineering and Energy Conference(ISEEC 2014), December 17-19 2014, Prajaktra Design Hotel, UdonThani, Thailand

National Proceeding

- 1) **T. Puttasakul**, A. Suamak, D. Yotha, R. Deeparnkeaw, A Study On The Design and Construction Of The Pulse Oxymeter, Proceedings of The 2nd Symposium on Thai Biomedical Engineering (ThaiBME2010), Bangkok, Thailand. pp. 156–160
- 2) **T. Puttasakul**, T. Jantarangsri, R. Mahayossanan, T. Srisuay, ECG and PCG, The 3rd Biomedical Engineering Conference (BMECON 2011), Pattaya, Thailand. pp. 31–34
- 3) **T. Puttasakul**, R. Mahayossanan, T. Dechatech, L. Teawwongsuwan, S. Fachaiyaphum, Phonocardiograph and Watermarking on Phonocardiogram, 4th Biomedical Engineering Conference (BMECON 2012), Bangkok, Thailand. pp. 77–81
- 4) **T. Puttasakul**, K. Chengjaturut, S. Chaiyarat, C. Promjarean, PCG Display on Microcomputer, 4th Biomedical Engineering Conference (BMECON 2012) , Bangkok, Thailand. pp. 133–136
- 5) **T. Puttasakul**, K. Leelasakulmekiat, M. Sangworasil, 3D Biomedical Visualization Using Package Program, 5th Biomedical Engineering Conference (BMECON 2013), Bangkok, Thailand. pp. 35-37
- 6) **T. Puttasakul**, K. Faisong, T. Pouangsombut, A study on the Design and Construction of Chest Compression Depth Measurement Device for CPR, 5th Biomedical Engineering Conference (BMECON 2013), Bangkok, Thailand. pp. 69-72
- 7) **T. Puttasakul**, K. Leelasakulmekiat, M. Sangworasil, Digital Medical Image Preparation for PACS System , ECTI-CARD, Chiang Mai 2014, Thailand. pp. D38