

Dr. R. Jegan

AP/AGP 8000

Department of Biomedical Engineering

Karunya Institute of Technology and Sciences

Coimbatore -641114

Email: 19.jegan@gmail.com

List of Publications

Journal Paper Publications

1. R.Jegan, K.V.Anusuya, "Real-time ECG peak detection for heart rate measurement using wavelet packet transform" Int. J. Biomedical Engineering and Technology, 19(3), 244-254, 2015.
2. Anju, R.Jegan "Development of Heart Rate Monitor Using Photoplethysmograph" in International Journal of Industrial Engineering, , 1-4, 2017
3. X.Anitha Mary, R.Jegan, Lina Rose & P. AnanthaChristu Raj "Design and Development of Vehicle Monitoring System through Black Box in a Car" International journal of Mechanical Engineering and Technology, 8(10), 493–501,2017
4. R.Jegan, K.V.Anusuya, "Bio Sensor based Feature Extraction and physiological parameters measurement for Bio Medical applications" Int. J. Biomedical Engineering and Technology, 28(1), 2018.
5. R Jegan& WS Nimi, "Sensor Based Smart Real Time Monitoring of Patients conditions Using Wireless Protocol" International Journal of E-Health and Medical Communications (IJEHMC), 9(3), 2018
6. R.Jegan, P. AnanthaChristu Raj, P Ramesh Kumar, WS Nimi "Development of mechanical based solar panel tracking system using FPGA " International journal of Mechanical Engineering and Technology, 9(11),1667-1674, 2018
7. Ashisha G.R., Anitha Mary X., Rajasekaran K., Jegan R. "IoT-Based Continuous Bedside Monitoring Systems" Advances in Big Data and Cloud Computing. Advances in Intelligent Systems and Computing, Springer vol 750, 2018.
8. R.Jegan, X.Anitha Mary, I reenaRoselin Raj "Nutrient Deficiency Detection And Classification Of Plant Leaf Disease Due To Environmental Degradation" Indian Journal of Environmental Protection, 39 (8) : 740-745, 2019
9. Jegan, R., Ashwin, V.H., Rajalakshmy, P., Jose, P.S.H "EEG based internal stress observation: An overview of methods involved from EEG acquisition to system design" Journal of Critical Reviews, 7(9), 2020
10. Jegan, R, Rajalakshmy, P., Jose, P.S.H, Nimi "2019-nCoV Effects, Transmission and Preventive Measures: An Overview" Journal of Public Health, 2020.
11. Jegan, R, Jose, P.S, Hannah Joice, Nimi "Methodological Role of Mathematics to Estimate Human Blood Pressure Through Biosensors" Journal of Interdisciplinary Mathematics, 2020
12. Nimi W.S, Subha Hency Jose &Jegan, R. "Review on Reliable and Quality Wearable Healthcare Device" International Journal of Reliable and Quality E Healthcare, Volume 10, (4), 2021.

13. Nimi.W.S, P. Subha Hency Jose & R. Jegan, "A Reliable and Smart E-Healthcare System for Monitoring Intravenous Fluid Level, Pulse and Respiration Rate", IJRQEH, Volume 11, Issue 1, Article 4, 2021.
14. R Jegan, "Effects of COVID-19 and Recommended Practices: Case Report" Medico Legal Update 21 (2), 933-939, 2021

Conference Paper Publications

1. R.Jegan, Nimi WS "Low cost and Improved performance measures on filtering techniques for ECG signal processing and TCP/IP based monitoring using LabVIEW" presented at the 'IEEE 4th International Conference on Advanced computing and Communication systems, ICACCS 17, Coimbatore, India, 06-07 January 2017.
2. Reena, R.Jegan, "Detection of Unhealthy Region and Classification of Plant Leaf Diseases" presented at the 'IEEE 4th International Conference on Advanced computing and Communication systems, ICACCS 17, Coimbatore, India, 06-07 January 2017.
3. R.Jegan, Melvin, "Performance Measures on Blood Pressure and Heart Rate Measurement from PPG Signal for Biomedical Applications", Proceedings of IEEE International Conference on Innovations in Electrical, Electronics, Instrumentation and Media Technology, ICIEEIMT 17, pp 31-315.
4. Pavithra, Anitha Mary, R.Jegan, "Low Cost Non-Invasive Medical Device For Measuring Hemoglobin", Proceedings of IEEE International Conference on Innovations in Electrical, Electronics, Instrumentation and Media Technology, ICIEEIMT 17, pp 197-200.
5. Anu Godly, Anitha Mary, R.Jegan, "Hum Detecting Equipment for Contactors", Proceedings of IEEE International Conference on Innovations in Electrical, Electronics, Instrumentation and Media Technology, ICIEEIMT 17, pp 282-286.
6. Reena, R.Jegan, "Multiple Interface based Fire Fighting Robot" in National Conference on Instrumentation, control and signal processing on 17-03-2017.
7. Enocsam, Mahesh. C, R.Jegan, "Development of smart wireless sensor module for real time monitoring of ECG signal using IEEE 802.15.4 RF Protocol" in National Conference on Instrumentation, Control and Signal Processing on 17-03-2017.
8. R.Jegan, "Development of Smart System for Monitoring Intravenous Fluid" in International Conference on Materials, Applied Physics and Engineering, Indore, India on 03-06-2018.
9. R.Jegan, Nimi " Sensor based biomedical frame work for monitoring patient vital parameters" IEEE International conference on Circuits and Systems, Karunya University, pp: 96-100, 2020
10. Vishnu, Jino ramson, Jegan "Internet of medical things (IoMT) – An overview" IEEE International conference on Circuits and Systems, Karunya University, pp: 101-104, 2020
11. R.Jegan, Daniel Leon salas, X.Fan et al. "On the development of Low cost PAR sensor" International symposium on Circuits and System 2020, Spain.
12. R.Jegan, Daniel Leon salas, "Measuring Photosynthetically Active Radiation witha Multi-Channel Integrated Spectral Sensor" 2021 IEEE International Symposium on Circuits and Systems (ISCAS), 2021.

Book Chapters

1. K Rajasekaran, X.Anitha Mary, R.Jegan, has published a book chapter titled "Smart Technology for Non Invasive Biomedical sensors to measure Physiological Parameters" in Biomedical Engineering: Concepts, Methodologies, Tools, and Applications, USA, PP 749-776, 2018.
2. R.Jegan, X.Anitha Mary, has published a book chapter titled "Case Studies of Smart Algorithm for Industrial Process Control" in "Studies in Fuzziness and Soft Computing" book series, Springer, PP 281-304, 2019.
3. R.Jegan, Nimi has published a book chapter titled "Sensor Based Smart Real Time Monitoring of Patients Conditions Using Wireless Protocol" in Biotechnology: Concepts, Methodologies, Tools, and Applications. pp 720-743, 2019
4. A Mary, R Jegan, S Evangeline "Modern Healthcare With Wearable Sensors and Wireless Technology" Optimizing Health Monitoring Systems With Wireless Technology, 2021, PP: 175-195