



Dr S Jerritta

Professor - Research

Electronics and Communication Engineering

Contact

9840225105

jerritta.se@vistas.ac.in

About Me

An experienced researcher and academician in the fields of **Biomedical Signal Processing, Artificial Intelligence, Machine Learning, Deep Learning and Cognitive Computing**, with a strong interdisciplinary approach that bridges engineering, neuroscience, and mental health. With a deep-rooted interest in understanding the human mind and body through technology, my research is centered around the development and application of **intelligent systems for emotion recognition, psychophysiological analysis, and the assessment of stress, hypovigilance, and loneliness.**

I specialize in the analysis of physiological signals such as EEG, ECG, GSR, and respiration, aiming to uncover biomarkers associated with cognitive and emotional states. My work contributes to the early detection and intervention of neurological disorders, offering novel tools for the diagnosis, monitoring, and management of psychological conditions.

Research Metrics

SCOPUS Id : 38361760000

VIDHWAN Id : 173520

Education

- **PhD in Biomedical Electronics Engineering**, University Malaysia Perlis, Malaysia(2014)
- **M.E Applied Electronics**, Anna University, (2006)
- **B.E Electronics and Communication Engineering**, Manonmaniam Sundaranar University, (2004)

Research Areas

- **Emotion Recognition for Autism Spectrum Disorder (ASD)** – AI-driven ECG-based emotion detection to assist children with ASD.
- **Hypovigilance Detection** – Multi-modal AI integration (EEG, ECG, EMG) for driver drowsiness and fatigue analysis.
- **Neural Correlates in Deaf Adults** – EEG-based cognitive studies for personalized learning strategies.
- **Cardiac Signal Analysis** – HRV-based early prediction models for Sudden Cardiac Arrest.

Funded Projects

- **MINISTRY OF EARTH SCIENCES, DEEP OCEAN MISSION**
“Real Time Identification and Management of Workplace Stressors in Submariners using Physiological and Psychological Measures”, Rs 37,00,000/- STATUS: Ongoing
- **FAURECIA, FRANCE**
“Data collection using different sensors order to implement artificial intelligence algorithms to predict different features”, Faurecia, France, Rs 19,79,646/- STATUS: Ongoing
- **VELS SEED GRANT**
Emotion Recognition in Children with Autism Spectrum Disorder, Funding of Rs. 1,00,000/- , Sept 2018, STATUS: Completed

Patents

- **A system and a method for detection of Driver State using Electrocardiogram**
Australian Innovation Patent : 2021106691, Granted
- **Predicting the emotional states children with Austim Spectrum Disorder (ASD) using ECG signals**,
INDIAN Patent Application Number : 201941005662,
Publication date: 22/02/2019

Other Credentials

- **Academic Editor**, PLOS ONE.
- **Technical Advisory Committee Member**, EinNel Technologies
- **Doctor Committee Member/ PhD Thesis Examiner**
- **NPTEL Star**