



Monorama Swain, M.Tech.

Designation : Associate Professor

Department : Department of Electronics & Communication
Engineering

(JOINED THE INSTITUTE IN AUG 2007)

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RESEARCH INTERESTS

- Speech Emotion Recognition, Signal Processing, Machine Learning, Channel Equalization, Speech Enhancement Techniques, Speaker Diarization, Blind Source Separation.
- Currently Working on An External Grant Funded Project "Methods And Mobile Applications for Interpretation of Emotion in Various Odia Dialects" from the Department of Science and Technology, India.

Academic Qualifications

Ph. D. Continuing at Biju Patnaik University of Technology, Odisha

M. Tech. (Communication), UCE, Burla

Teaching Experience/Industrial Experience/Research Experience

Teaching Experience : More than 14 years

Research Experience : More than 8 years

PUBLICATIONS

JOURNAL & CONFERENCES

1. Monorama Swain, R. P. Panda, Senha Tribrewal, "A study of differential evolutionary algorithm in blind source separation", International Journal of computer applications, Vol.no.29, pp 48-55, 2011.
2. A. Mishra, Monorama Swain, B. Dash "An approach to face recognition of 2-D images using Eigen faces and PCA", *International Journal of Signal and Image processing*, Vol.No-3, pp-144-156, 2012.
3. Monorama Swain, Subhasmita Sahoo, Aurobinda Routray, P. Kabisatpathy, Jogendra N. Kundu "Study of feature combination using HMM and SVM for multilingual Odiya speech emotion recognition" *International Journal of Speech Technology*, Vol.18, PP 387-393,2015.
4. Monorama Swain, Aurobinda Routray, P. Kabisatpathy" Databases, features and classifiers for speech emotion recognition – A Review", *International Journal of Speech Technology*, Vol. 20, PP 1-30,2018.
5. M. Swain, R. Panda, P. Kabisatpathy "A Comparative study of Infomax, Extended Infomax and Multi-user Kurtosis algorithms for Blind source separation" *International Journal of Rough Sets and Data Analysis*, vol.6.no.1pp.1-17,2019.
6. Monorama Swain, Tanmaya Tapaswini Tripathy, Rutuparna Panda, Sanjay Agrawal, Ajith Abraham "Differential exponential entropy-based multilevel

threshold selection methodology for colour satellite images using equilibrium-cuckoo search optimizer" Engineering Applications of Artificial Intelligence, vol.109, pages 104599,2022.

7. Monorama Swain, , Rutuparna Panda, Sanjay Agrawal, Ajith Abraham Data science methodologies in smart healthcare: a review://doi.org/10.1007/s12553-022-00648-9", 2022.

Book Chapter

Conferences attended

Conference

1. Monorama Swain, Swati Swagatika Sahu, Rasmita Sethy, "A comparative study of EEG signal classification using discrete wavelet transform and S-Transform" pp-1-12, Telemedicon'10, Tele-medicine Society of India, 14-16th November, 2010 at Bhubaneswar.
2. Monorama Swain, Rutuparna Panda, Himansu Mahapatra, Senha Tribrewal "Feature Extraction and Performance Analysis of EEG Signal Using S-Transform", International Conference on Computational Intelligence in Data Mining - Vol.2, pp-665-674, VSSUT BURLA, ICCIDM (Springer) 20-21 December, 2014.
3. Monorama Swain, Rachita Biswal, Rutuparna Panda, P. Kabisatpathy, "Study of a multiuser kurtosis algorithm and an information maximization algorithm for blind source separation", ICCIDM 2016.
4. Monorama Swain, Rutuparna Panda "B-Spline design of digital FIR filter using evolutionary computation techniques" International Conference on Graphic and Image Processing, vol.8285, 2011.
5. M. Swain, A. Routray, P. Kabisatpathy, J. N. Kundu "Study of prosodic feature extraction for multidialectal Odia speech emotion recognition" pp.1644-1649, IEEE TENCON Region10 Conference, Singapore 2016.
6. Ashutosh Samal, Harsh, Kaustav Purkait, Umasankar Das, Monorama Swain "Smart Attendance based Decision Support System for Mid-day Meal Scheme" paper accepted and presented in ICIT 2019, IIIT, BBSR.
7. M. Swain, A. Routray, P. Kabisatpathy "Automatic Classification of discrete emotions in various dialects of Odia speech" Paper accepted and presented in Doctoral Symposium, CINE 2020 at ISI Kolkata.
8. Monorama Swain, Bubai Maji, Umasankar Das "Convolutional Gated Recurrent Units (CGRU) for Emotion Recognition in Odia Language "pp. 269-273, IEEE EUROCON 2021-19th International Conference on Smart Technologies.

Achievements

1. ICIT 2014 Student Research symposium, 24th December jointly sponsored by ISTE and CSI : Acted as Finance Coordinator.
2. Coordinator State level Inter college B.Tech. project competition (ICBPC-2015) April 2015, organized at Silicon Institute of Technology, BBSR.
3. 19th State level annual student convention successfully organized in Silicon Institute of technology, 2016: Acted as Convenor.
4. ICIT 2017 Student Research symposium, 23rd December jointly sponsored by ISTE and CSI: Acted as Finance Coordinator.
5. Secretary Silicon Scholars club 2018: Mentoring the student scholars for higher studies, innovative projects, organizing events for the scholars to broaden their knowledge in the respective and specialized fields of engineering. Motivation, recognition and awards for the scholars
6. Certificate of Merit: As a Section managing committee member of ISTE Odisha section from 2015 to till continuing.
7. Working as the Faculty Coordinator of ISTE Chapter at Silicon Institute of Technology, Bhubaneswar.
8. Certificate of Achievement: ISTE Odisha Section awarded Best faculty Award (Engineering) for the year 2019.
9. Received an INSTITUTION AWARD on 2020, from Institution of Engineers Odisha section.
10. Certificate of Merit: Nominated as a Program Co-ordinator of INAE-DVP Scheme from the department of Electronics and Communication Engg, Silicon Institute of Technology, Bhubaneswar.