



PRAGYAN MOHAPATRA

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PERSONAL PROFILE:

Current Research scholar at IIIT-Bangalore. Former Researcher at TCS Research & Innovation having 2 years of experience. My interests cover various aspects of AI, Data Visualization and Data Analytics. Graduated in Computer Science and Engineering from CET, Bhubaneswar, India in 2016.

PROJECT HIGHLIGHTS:

- **Structural Health Monitoring of Multi-rotor Micro Aerial Vehicles:** Detailed exercise of characterising the common and frequent faults of motors and propellers of an MAV using multi-modal sensing of vibration, acoustic noise, input power and thrust profiles; and then use relevant features to perform fault detection and classification using machine learning algorithms.
Tools and KeySkills: MATLAB, Machine Learning
- **Aerial Drones with Direction Sensitive DeepEars:** Developed a new Direction of Arrival (DoA) estimation framework based on deep learning algorithms. Proposed three deep architectures: CNN based, CNN-LSTM based and LSTM based. LSTM based architecture outperformed state-of-the-art techniques such as MUSIC and ESPRIT at high noise levels.
Tools and KeySkills: Python, MATLAB, Neural Networks, Tensorflow
- **Tacto-Acoustic Material Inspection:** Novel feature extraction from the acoustic data obtained from the tactile sensor to perform material classification. Built a live demo that classifies the type of the material by tapping on the material.
Tools and KeySkills: MATLAB, Machine Learning
- **Acoustic Analytics Audio Pipeline:** Developed an audio pipeline that analyses the audio signal extracting its various features and reaching the end goal. Includes knowledge engineering techniques to infer new inferences from data and deduce the goal.
Tools and KeySkills: Eclipse, Python, JAVA, Jena Reasoner, Ontology, SPARQL

- **Banking Transaction Web Application:** Developed a banking web application that performed smooth functioning of credit, debit and transfer of amount., leading the team at Initial Learning Program, TCS.
Tools and Key Skills: Eclipse, JAVA, HTML, CSS, JavaScript

EDUCATIONAL QUALIFICATIONS:

Degree	Institute	Board/University	Year	Aggregate
B.Tech in Computer Science.	College of Engineering and Technology, Bhubaneswar	BPUT	2016	CGPA:8.92
Class 12th	D.A.V Public School	CBSE	2012	90.80%
Class 10th	D.A.V Public School	CBSE	2010	CGPA 10

PROGRAMMING AND COMPUTER SKILLS:

- Programming Languages: Java, C, C++, Python, MATLAB
- Web Technologies: HTML, CSS, JSP, Servlets
- Miscellaneous: Machine Learning, Deep Learning, Tensorflow, Reasoner, Ontology

PUBLICATIONS:

- P Misra, AA Kumar, P Mohapatra , P Balamuralidhar, "Aerial Drones with Location Sensitive Ears", in IEEE Communications Magazine, 2018
- P Misra, AA Kumar, P Mohapatra , P Balamuralidhar, "DroneEARS: Robust Source Localization with Aerial Drones", at IEEE ICRA 2018
- P Mohapatra, A Ramaswamy, J Gubbi, AA Kumar, P Misra, "Aerial Drones with Direction Sensitive DeepEars", in the Proceedings of the 4th ACM Workshop on Micro Aerial Vehicle Networks, Systems, and Applications
- P Misra, G Kandaswamy, P Mohapatra, K Kumar, P Balamuralidhar, "Structural Health Monitoring of Multi-Rotor Micro Aerial Vehicles", in the Proceedings of the 4th ACM Workshop on Micro Aerial Vehicle Networks, Systems, and Applications

ACHIEVEMENTS:

- Presented "DroneEARS: Robust Source Localization with Aerial Drones", @ **IEEE ICRA 2018** (Flagship conference in Robotics) held at Brisbane, Australia.
- Bagged "Special Initiative Award" by TATA Consultancy Services Ltd. in appreciation of outstanding contribution to the Organisation.
- ILP Kudos by TATA Consultancy Services Ltd. for outstanding performance during the Initial Learning Program (ILP) of TCS at Trivandrum.
- Amul Vidyashree award for academic excellence in Class 10.