Arpita Gang
arpita.gang@rutgers.edu

RESEARCH INTERESTS Signal Processing, Distributed Optimisation

EDUCATION

PhD, ECE
Rutgers University, 2017-Present
Research Area: Distributed Optimization
GPA: 4.0

M.Tech, ECE
IIIT Delhi, 2014-2016
Specialization: Communication and Signal Procesing
GPA: 9.44/10

B.Tech, ECE
NIT Silchar, 2009-2013
GPA: 9.16/10

PUBLICATIONS

Arpita Gang, Haroon Raja, Waheed U. Bajwa "Fast and communication-efficient distributed PCA" accepted at ICASSP 2019.

Gang, A., Biyani, P. "On Discriminative Framework for Single Channel Audio Source Separation" Proc. Interspeech 2016, 565-569.

R. Ahuja, **A. Gang**, P. Biyani and S. Prasad, "A fast converging method for common mode sensor based impulse noise cancellation for downstream VDSL" 2016 24th European Signal Processing Conference (EUSIPCO), Budapest, 2016, pp. 310-315.

Arpita Gang, Janki Mehta, Angshul Majumdar, "Recovering Partially Sampled EEG Signals using Learned Dictionaries", Machine Intelligence and Signal Processing, New Delhi, 2014, pp. 67–76

PROFESSIONAL EXPERIENCE

Research Assistant, IIIT Delhi — August,16-May,17
Guide: Dr. Pravesh Biyani
Single Channel Source Separation

Intern, Indian Institute of Technology, Guwahati (Research) — May-June,12
Guide: Dr. Rohit Sinha
Voice Activity Detection

Intern, Indian Institute of Technology, Guwahati (Research) — May-June,11
Guide: Dr. Ratnajit Bhattacharjee
Studying various modulation schemes

RESEARCH EXPERIENCE

M.Tech Thesis: Single channel Audio Source Separation — Aug,15-Jul,16

Guide: Dr. Pravesh Biyani
Development of a novel framework for discriminative training of models for effective separation of mixed signals from a single observation of their mixture. The framework separates one source at a time from the mixture and also finds the right parameters for models as a part of the optimsation problem.

PROJECTS

Text-Dependent Speaker Verification System Aug,12-Apr,13
Guide: Dr. R.H.Laskar
A text-dependent speaker verification system using MFCC features and DTW.

Recovering Partially sampled EEG signals using learned dictionaries Oct - Dec,14
Guide: Dr. Angshul Majumdar
Dictionaries trained using K-SVD were used to recover partially sampled EEG signals.

Road Intersection Detection May-July,15
Guide: Dr. Saket Anand
Intersection detection in outdoor environments for autonomous vehicle exploration.

Impulse Noise Cancellation May,15 Mar,16
Guide: Dr. Pravesh Biyani
Mitigation of Impulse noise in VDSL systems using common mode and differential mode signals.

COMPUTER SKILLS

Programming Language: C, Python
Tools: MATLAB

TECHNICAL ELECTIVES

Convex Optimization, Compressive Sensing, Machine Learning, Stochastic Estimation and Control, Probability and Random Process, Quantum Information Science

TEACHING ASSISTANTSHIP

Principles of Communication Systems, Modeling Complex Systems, Digital Signal Processing

AWARDS AND ACHIEVEMENTS

Ranked 3rd in State of Assam in 12th board, 2008
Silver Medalist in B.Tech, 2013
Google Travel Grant for INTERSPEECH 2016.