

**Dr. Bijit Kumar Das**
Assistant Professor
PhD (IIT Kharagpur)Department of Electronics &
Communication Engineering

6900139206

bijit@iiitg.ac.in

Joined the Institute in July 2018

About

Hello, welcome to my home page. I am an Assistant Professor in the Department of Electronics and Communication Engineering at Indian Institute of Information Technology, Guwahati. I joined IIITG in July, 2018. Prior to that, I did PhD from IIT Kharagpur (Year of awarding PhD degree: 2018). I obtained the M.S. degree from the Department of E.&E.C.Engg., IIT Kharagpur in 2011, and the B.E. in E.&T.C. from Bengal Engineering and Science University Shibpur (currently, Indian Institute of Engineering Science Technology Shibpur) in 2007.

Research Interests

Adaptive Signal Processing, Sparsity Aware Adaptive Filters, Distributed Adaptive Filtering / Adaptive Networks, Signal Processing for Digital Communication, Signal Processing for Audio and Acoustic Applications and some other topics.

Teaching

At IIITG, currently I am teaching the following courses:

EC241: Signals and Systems

EC646: Statistical Signal Processing

Publication

Conference

- Deep Manoram Baruah, Sauravijoti Senchowa, Bijit Kumar Das, "Impact of Reference Microphone Selection on Binaural Cue Preservation for Directional Sources in Multi-microphone Hearing Aids", 2023 IEEE Guwahati Subsection Conference (GCON), (2023), pages. 1-5, IEEE
- Deep M. Baruah, S. Senchowa, and Bijit Kumar Das, "An Improved Adaptive Multi-microphone Noise Reduction Algorithm Preserving Binaural Cues in Hearing Aids", IEEE 2023 World Conference on Communication & Computing (WCONF), (2023), IEEE
- Bijit Kumar Das, "Low SNR Spatially Sparse Channel Estimation in Millimeterwave Hybrid MIMO Systems based on Adaptive Filtering Framework", IEEE Applied Signal Processing Conference (ASPCON), (2020),
- Bijit Kumar Das, Arpan Mukherjee, Mrityunjoy Chakraborty, "Block-Sparsity-Induced System Identification using Efficient Adaptive Filtering", National Conference on Communications (NCC), (2020), pages. 1-6,
- Bijit Kumar Das, Arpan Mukherjee, "Improved Sparsity Aware Collaborative Spectrum Estimation for Small Cell Networks", IEEE Calcutta Conference (CALCON), (2020), pages. 338-341,
- Rajarshi Saha, Bijit Kumar Das, and M. Chakraborty, "Sparsity Aware Fast Block LMS Algorithms for MIMO Radar Imaging", IEEE International Workshop on Signal Processing Systems (SIPS), (2018), pages. 217-222, Capetown, South Africa
- Bijit Kumar Das, S. Mukhopadhyay, and M. Chakraborty, "Robust Adaptive Filtering via Convex Combination of L0-RLS Adaptive Filters", IEEE International Symposium on Circuits and Systems (ISCAS), (2018), Florence, Italy. Proceedings of ISCAS
- Bijit Kumar Das and Mrityunjoy Chakraborty, "A Block-Based Convex Combination of NLMS and ZA-NLMS for Identifying Sparse Systems with Variable Sparsity", IEEE International Symposium on Circuits and Systems (ISCAS), (2017), Baltimore, MD, USA. Proceedings of ISCAS
- Bijit Kumar Das and Mrityunjoy Chakraborty, "A New Diffusion Sparse RLS Algorithm with Improved Convergence Characteristics", IEEE International Symposium on Circuits and Systems (ISCAS), (2016), Montreal, Canada. Proceedings of ISCAS
- Bijit K. Das, Mrityunjoy Chakraborty, and Jeronimo Arenas-Garcia, "Sparse Distributed Learning via Heterogeneous Diffusion Adaptive Networks", IEEE International Symposium on Circuits and Systems (ISCAS), (2015), Lisbon, Portugal. Proceedings of ISCAS
- Bijit K. Das, Luis A. Azpicueta-Ruiz, Mrityunjoy Chakraborty, Jeronimo Arenas-Garcia, "On Steady State Tracking Performance of Adaptive Networks", IEEE International Conference on Digital Signal Processing (DSP), (2015), Singapore. Proceedings of DSP
- Bijit K. Das, Luis A. Azpicueta-Ruiz, Mrityunjoy Chakraborty, and Jeronimo Arenas-Garcia, "A Comparative Study of Two Popular Families of Sparsity-Aware Adaptive Filters", International Workshop on Cognitive Information Processing, Copenhagen, Denmark, (2014), Proceedings of CIP
- Bijit Kumar Das, Rajib Lochan Das, and Mrityunjoy Chakraborty, "Multi Stage Adaptive Filter for Identification of the Systems with Variable Sparsity", IEEE National Conference on Communications, (2013), Proceedings of NCC
- Rajib Lochan Das, Bijit Kumar Das, and Mrityunjoy Chakraborty, "Improving the Performance of the LMS Algorithm Via Cooperative Learning", IEEE National Conference on Communications 2013 Proceedings of NCC, (2013),
- Bijit Kumar Das, Mrityunjoy Chakraborty, and Soumitra Banerjee, "Adaptive Identification of Sparse Systems with Variable Sparsity", IEEE International Symposium on Circuits and Systems (ISCAS), Rio de Janeiro, Brazil, (2011), pages. 1267 - 1270, Proceedings of ISCAS 2011
- Bijit Kumar Das and Mrityunjoy Chakraborty, "Gradient Comparator Least Mean Square Algorithm for Identification of Sparse Systems with Variable Sparsity", Asia Pacific Signal & Information Processing Association: Annual Summit and Conference, Xian, China, (2011), Proceedings of APSIPA2011
- Bijit Kumar Das and Mrityunjoy Chakraborty, "Sparse Least Mean Square Algorithm for Estimation of Truncated Volterra Kernels", Asia Pacific Signal & Information Processing Association: Annual Summit and Conference, Annual Summit and Conference, Biopolis, Singapore, (2010), Proceedings of the APSIPA2010

Journal

- G. V. Chakravarthi, Bijit Kumar Das, and M. Chakraborty, "An Adaptive Convex Combination of APA and ZA-APA for Identifying Systems having Variable Sparsity and Correlated Input", Digital Signal Processing, Vol. 82, (2018), pages. 118-132, Elsevier
- Bijit Kumar Das and Mrityunjoy Chakraborty, "Improved L0-RLS Adaptive Filter", (IET) Electronics Letters, Vol. 53, No. 25, (2017), pages. 1650 - 1651,
- Bijit Kumar Das, G. V. Chakravarthi, and M. Chakraborty, "A Convex Combination of NLMS and ZA-NLMS for Identifying Systems with Variable Sparsity", IEEE Transactions on Circuits and Systems II Express Briefs, Vol. 64, No. 9, (2017), pages. 1112 - 1116,
- Bijit Kumar Das, Mrityunjoy Chakraborty, and Jeronimo Arenas-Garcia, "Sparse Distributed Estimation via Heterogeneous Diffusion Adaptive Networks", IEEE Transactions on Circuits and Systems II Express Briefs, Vol. 63, No. 11, (2016), pages. 1079-1083,
- Bijit Kumar Das, Mrityunjoy Chakraborty, "Sparse Adaptive Filtering by an Adaptive Convex Combination of the LMS and the ZA-LMS Algorithms", IEEE Transactions on Circuits and Systems I Regular Papers, Vol. 61, No. 5, (2014), pages. 1499-1507,



IIIT Guwahati

Bongora, Assam
Guwahati - 781015
INDIA

0824 2474000

registrar@iiitg.ac.in

Our Campus

Gallery
Library
Health care center

Quick Links

Tender/NIQ
Academic Calendar
Semester Fee
Seat Distribution
Curriculum
Visitor's Information
Annual Report

