Curriculum Vitae

About

Name	Mrinmoy Bhattacharjee
Address	Dept. of EEE, , Indian Institute of Technology Guwahati, Assam, India
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Education

- **2023**   **Ph.D.** (*Signal Processing & Machine Learning*), Indian Institute of Technology Guwahati, Assam, India
- **2014**   **M.Tech.** (*Computer Technology*), National Institute of Technology Raipur, Chattissgarh, India
- **2011**   **B.Tech.** (*Information Technology*), Assam University Silchar, Assam, India

Skills

- **Scripting**: C/C++, Python, Java, SQL, HTML/CSS, JavaScript/Ajax, JSP/PHP, Latex, Bash
- **Machine Learning**: Keras/Tensorflow, PyTorch, libSVM, HTK
- **Tools**: Matlab/Octave, Spyder/Jupyter, MySQL, Netbeans/Eclipse, MS-Paint/ GIMP, MS-Excel/ LibreOffice-Calc
- **Operating Systems**: Ubuntu, Windows

Experience

- **Senior Project Engineer, IIT Dharwad**   **Apr 2022-present**
  "Development of scalable Speaker Recognition systems for Indian languages", *sponsored by MeitY, Govt. of India*
- **Assistant Project Engineer, IIT Guwahati**   **Aug 2014-Dec 2015**
  "Development of Online Assamese Handwriting Recognition System", *sponsored by DST, Govt. of India*

Projects

- **Scalable speaker recognition systems for Indian languages**   **Senior Project Engineer, IIT Dharwad**
- **Analysis of Speech and Music Content for Movie Genre Classification**   **Ph. D. thesis**
- **RnDOPS: ERP solution for the R&D Section**   **Assistant Project Engineer, IIT Guwahati**
- **Online handwriting recognition for Assamese language**   **Assistant Project Engineer, IIT Guwahati**
- **Redundancy Reduction in Wireless Sensor Networks**   **M. Tech. Thesis**
- **N-Coins Problem: An Algorithmic Solution**   **B. Tech. Project**

Publications

- **Mrinmoy Bhattacharjee**, S. R. Mahadeva Prasanna and Prithwijit Guha, "Clean vs. Overlapped Speech-Music Detection Using Harmonic-Percussive Features and Multi-Task Learning," in IEEE/ACM Trans. on Audio, Speech, and Lang. Process., vol. 31, pp. 1-10, 2023.
- **Mrinmoy Bhattacharjee**, S. R. Mahadeva Prasanna and Prithwijit Guha, "Speech/music classification using phase-based and magnitude-based features", in *Speech Communication*, vol. 142, pp. 34-48, 2022.
- **Mrinmoy Bhattacharjee**, S. R. Mahadeva Prasanna and Prithwijit Guha, "Speech/Music Classification Using Features From Spectral Peaks," in IEEE/ACM Trans. on Audio, Speech, and Lang. Process., vol. 28, pp. 1549-1559, 2020.
- **Mrinmoy Bhattacharjee**, S. R. Mahadeva Prasanna and Prithwijit Guha, "Foreground-Background Audio Separation using Spectral Peaks based Time-Frequency Masks," in Proc. Int. Conf. on Signal Process. and Commun. (SPCOM), 2022, pp. 1-5.
- Moakala Tzudir, **Mrinmoy Bhattacharjee**, Priankoo Sarmah, S. R. Mahadeva Prasanna, "Low-Resource Dialect Identification in Ao Using Noise Robust Mean Hilbert Envelope Coefficients," in Proc. Nat. Conf. on Commun. (NCC), 2022, pp. 1-5.
- Shikha Baghel, **Mrinmoy Bhattacharjee**, S. R. Mahadeva Prasanna, and Prithwijit Guha, "Automatic Detection of Shouted Speech Segments in Indian News Debates." in Proc. Interspeech 2021, pp. 4179-4183.
- **Mrinmoy Bhattacharjee**, S. R. Mahadeva Prasanna and Prithwijit Guha, "Detection of Speech Overlapped with Low-Energy Music using Pyknograms," in Proc. Nat. Conf. on Commun. (NCC), 2021, pp. 1-6.
- **Mrinmoy Bhattacharjee**, S. R. Mahadeva Prasanna and Prithwijit Guha, "Classification of Speech vs. Speech with Background Music," in Proc. Int. Conf. on Signal Process. and Commun. (SPCOM), Bangalore, India, 2020, pp. 1-5.
- Shikha Baghel, **Mrinmoy Bhattacharjee**, S. R. Mahadeva Prasanna, and Prithwijit Guha, "Shouted and Normal Speech Classification Using 1D CNN," in Proc. Int. Conf. on Pattern Recognit. and Machine Intell. (PReMI), 2019, pp. 472-480.
- **Mrinmoy Bhattacharjee** and Subhrata Gupta, "Determining redundant nodes in a location unaware Wireless Sensor Network," in Proc. IEEE Int. Conf. on Advanced Commun. Control and Computing Tech., 2014, pp. 858-862.

Awards and Fellowships

- Ph. D. fellowship (Jan, 2016 - Dec, 2020): *Visvesvaraya Ph.D. Scheme, MeitY, GoI. Award No. MEITY-PHD-1230*
- M. Tech. fellowship (Jun 2012 - May 2014): *MHRD, GoI*
- Certificate of appreciation for securing 1st position in Higher Secondary examination in the district: *Deputy Commissioner, Tinsukia District, Assam*
- Certificate of proficiency and a cash award for securing star marks in Higher Secondary examination: *Assam Higher Secondary Education Council*
- Merit Scholarship for excellent performance at matriculation examination: *Oil India Ltd., Duliajan, Assam*

Talks Delivered

- Delivered a session in a workshop on ***Introduction to Machine Learning using Python*** organized by the Research Scholar Forum, Dept. of EEE, IIT Guwahati.
- Conducted hands-on courses in a one-week Faculty Development Programme on ***Artificial Intelligence and Machine Learning***, jointly organized by Electronics and ICT Academics, held from 17th to 21st Dec 2018 through National Knowledge Network of MeitY, Govt. of India.

Professional Activities

- Reviewer for **IEEE Access** journal, **Elsevier Digital Signal Processing** journal, **SPECOM**'22, **NERC**'22, **EU-SIPCO**'22, **NCC**'22, **IEEE INDICON**'21.

Language Skills

- English (Full Professional Proficiency)
- Bengali (Native/Bilingual Proficiency)
- Assamese (Native/Bilingual Proficiency)
- Hindi (Native/Bilingual Proficiency)

Public Profiles

- **Personal Website**: https://mrinmoy-iitg.github.io/Webpage/
- **Github**: https://github.com/mrinmoy-iitg
- **LinkedIn**: https://www.linkedin.com/in/mrinmoy-bhattacharjee-77244b82/

Referees

Available upon request