

Name: Dr. Arindam Ghosh.

Department: Computer Science & Engineering.

Contact Nos.: 92333009099

Qualifications: PhD

Designation: Assistant Professor

VIDWAN ID: 187547

Experience (Teaching / Research / Industry, in years): 14 years

Date of Joining at the Present Institution: 04.09.12

Examinations Cleared: NET-CSIR/GATE



Qualifications Summary (Reverse chronological order):

Degree	Institute	From - To	Subjects
Doctor of Philosophy (Ph.D.)	National Institute of Technology, Durgapur, India.	July-2021	Computer Science & Engineering
Master of Technology (M.Tech.)	Jadavpur University, WB, India.	May-2010	Computer Science & Engineering
Bachelor of Engineering (B.E)(Honours)	Burdwan University, WB, India.	June-2004	Computer Science & Engineering

Experience Summary (In chronological order):

Designation	Organization	Date From - Date To
Assistant professor	Seacom Engineering College, Sankrail, India.	September 2007- August 2012
Assistant professor	Dr. B C Roy Engineering College, Durgapur, India	September 2012-to date

Specialization/Research Interest:

- Human Computer Interaction (HCI), Internet of Things (IoTs), Participatory Sensing, and Applications of Machine Learning.

Awards & Recognitions

Best paper/ scholarship/Position in university exam / awards while at industry/ other organizations etc.

- Awarded travel grant to attend "COMSNETS 2019" held at Bangalore, India.
- Awarded travel grant to attend "CoDS-COMAD 2019" held at Kolkata, India.
- Awarded "ITRA-Deal" to attend "14th Annual International Conference on Mobile Systems, Applications" held in 2016, Singapore.

Courses taught:

B.Tech: Specify the name of the subject/s (Theory first and then practical)

- Data structure and algorithm, Operating System, Software Engineering, Computer Graphics and Multimedia, Database Management System.

M.Tech: specify the name of the Subject/s

- Advanced Operating System, Teaching & Research Methodologies.

Online Mode of Teaching:

The Faculty member needs to specify the online teaching/ assessment method adopted. (Link to any faculty created resources for Lecture notes / PPT/ Video Lecture etc. in Google Drive / Weblink etc)

- Online teaching and assessment have been implemented through ICT in the form of Lecture notes, PowerPoint Presentations, Online examinations, and Virtual Labs.
- <https://www.sites.google.com/site/thetechmax/>

Publications:

Journal:

1. **Arindam Ghosh**, Amartya Chakraborty, Joydeep Kumbhakar, Mousumi Saha, and Sujoy Saha, "HumanSense: a framework for collective human activity identification using heterogeneous sensor grid in multi-inhabitant smart environments.", *Personal and Ubiquitous Computing*, Springer (2020). DOI: 10.1007/ s00779-020-01402-6
2. **Arindam Ghosh**, Amartya Chakraborty, Dhruv Chakraborty, Mousumi Saha, and Sujoy Saha, "UltraSense: A non-intrusive approach for human activity identification using heterogeneous ultrasonic sensor grid for smart home environment.", *Journal of Ambient Intelligence and Humanized Computing*, Springer(2019). DOI: 10.1007/ s12652-019-01260-y
3. Subhrangshu Adhikary and **Arindam Ghosh**, "Dynamic time warping approach for optimized locomotor impairment detection using biomedical signal processing.", under review in *Biomedical Signal Processing and Control* (Elsevier). [Accepted]

Conference:

1. **Arindam Ghosh**, Dibyendu Das, Ruma Ghosh, Sandip Mondal, Mousumi Saha, "Non-Invasive Group activity identification using Neural Networks.", *Conference on Innovations in Sustainable Energy and Technology*, Springer (2021). DOI: 10.1007/978-981-16-1119-3 32.
2. Subhrangshu Adhikary, Ruma Ghosh, and **Arindam Ghosh**, "Gait abnormality detection without clinical intervention using wearable sensors and machine Learning.", *Conference on Innovations in Sustainable Energy and Technology*, Springer (2021). DOI:

- 10.1007/978-981-16-1119-3 31.
3. Biswajit Maity, Yashwant Polapragada, **Arindam Ghosh**, Sanghita Bhattacharjee and Subrata Nandi, \Identifying Outdoor Context by Correlating Air and Noise Pollution Sensor Log.", 12th International Conference on Communication Systems and Networks (COMSNETS) (2019). DOI:10.1109/COMSNETS48256.2020.9027364
 4. **Arindam Ghosh**, Kirti Kumari, Sagar Kumar, Mousumi Saha, Subrata Nandi and Sujoy Saha, "NoiseProbe: Assessing the Dynamics of Urban Noise Pollution through Participatory Sensing.", 11th International Conference on Communication Systems & Networks (COMSNETS)(2018). DOI:10.1109/COMSNETS.2019.8711473
 5. **Arindam Ghosh**, Prithviraj Pramanik, Kartick Das Banerjee, Ashutosh Roy, Subrata Nandi, and Sujoy Saha, \Analyzing Correlation Between Air and Noise Pollution with Inuence on Air Quality Prediction.", 6th International Workshop on Data Science and Big Data Analytics. IEEE International Conference on Data Mining(2018). DOI:10.1109/ICDMW.2018.00133
 6. **Arindam Ghosh**, Dhruv Chakraborty, Deepak Prasad, Mousumi Saha and Sujoy Saha, "Can We Recognize Multiple Human Group Activities using Ultrasonic Sensors?.", 10th International Conference on Communication Systems and Networks (COMSNETS)[WACI](2017). DOI:10.1109/COMSNETS.2018.8328272
 7. **Arindam Ghosh**, Anubrata Sanyal, Amartya Chakraborty, Praveen Kumar Sharma, Mousumi Saha, Subrata Nandi, and Sujoy Saha, \On Automatizing Recognition of Multiple Human Activities using Ultrasonic Sensor Grid.", 9th International Conference on Communication Systems and Networks (COMSNETS)[WACI](2016). DOI:10.1109/COMSNETS.2017.7945440
 8. **Arindam Ghosh**, Sandip Mondal, Mousumi Saha, Sujoy Saha, and Subrata Nandi. " Poster: Air Quality Monitoring using Low-cost Sensing Devices.", 14th International Conference on Mobile Systems, Applications, and Services Companion (MobiSys)(2016). DOI:10.1145/ 2938559.2948843
 9. **Arindam Ghosh**, Ruma Ghosh and Debaprasad Mukherjee. "A novel highly scalable clustering algorithm based on hyperedges and successive merging with randomization for complex data sets.", International Conference on Circuits, Power and Computing Technologies(ICCPCT)(2014). DOI: 10.1109/ICCPCT.2014.7054818

Book:

Name of the author/s (**Make bold font for own name**), "Title of the Book", Name of the Publisher, Year of Publication, ISBN Number (Print / Online)

Book Chapter:

Name of the author /s (**Make bold font for own name**) "Title of the Chapter", "Page no. of the Chapter", "Title of the Book", "Name of the Publisher", Year of Publication. ISBN Number (Print / Online)

Supervision of Ph.D/M.Tech/ B.Tech Projects:

For Ph.D

1. **Name of the student, Name of the supervisor, " Title of the thesis", Year , Name of the university (completed)**
2. **Name of the student, Name of the supervisor, " Title of the thesis", Year, Name of the university (Registered)**

Projects:

1. Name of the student/s (with university roll number), Name of the supervisor, " Title of the Project / thesis" , Year (only final year 8th Sem Project for B.Tech and Thesis for M.Tech)

M.Tech:

Serial	Project Name	Student Name	University Roll	Year
1.	SafeHouse: A home security system based on smartphone sensing	Swadhin Kumar Mondal	12011518001	2020

B. Tech:

Serial	Project Name	Student Name	University Roll	Year
1.	HonkPollute: To determine the ambient honking patterns using pervasive sensing.	Avepsit Chowdhury, Debangana Mitra, Kirty Shaw, Krishnamita Banerjee	12000116105, 12000116097, 12000116085, 12000116083	2020
2.	A comparative study based on different algorithmic approaches for Human Activity Recognition	Souvik Jana, Sushobhan Ghosh	12000116028, 12000116015	2020
3.	Classroom Events Detection using an array of Ambient Sensors	Rakesh Pathak, Sayon Deep	12000116067, 12000116048	2020

Invited Lectures:

Topic of the lecture, Name of the event, organized by, Date

- Conducted a technical session on "IOT & Its applications" at Ramakrishna Mission Private ITI, Asansol on 21st January 2020.

Participation in seminar/conference/symposium/workshop/discussion meeting

Name of the event, duration, Year, Organized by.

Participation in faculty development programmes

Name of the faculty development programmes, Online / Face-to-face/ From Date - To Date, Duration, Year, Organized by.

- Participated and Completed online FDP on the theme "Inculcating Universal Human values in Technical Education" organized by All India Council for Technical Education (AICTE) from 2 August, 2021 to 6 August, 2021.
- Completed MOOC course from NPTEL on "NBA Accreditation and Teaching Learning in Engineering (NATE)" in 2020.
- Participated and Completed AICTE Training and Learning (ATAL) Academy online FDP on "Foundation and Practical Aspects of Cyber Security" in December 2020 at Department of CSE, BCREC.
- Completed MOOC course from the University of Washington offered through Coursera on "Machine Learning Foundations: A Case Study Approach" in 2020.
- Completed MOOC course from the University of Washington offered through Coursera on "Machine Learning: Regression" in 2020.
- Participated in "Train The Trainer Program on Data Warehousing Concepts and Tools" held from 29th September-1st October 2010, Infosys Technologies Ltd, Bhubaneswar.

- Participated in the "Theoretical aspect of computer science (UGC sponsored refresher course)" held from 21st January 2009 -12th February 2009, UGC-Academic Staff College, Jadavpur University.

Organization of events (Dr. B. C. Roy Engineering College)

Name of the event, Date, Year

- Organized all India seminar on "Think-IoT 2017.V1-Booting IOT: An Introduction to IoT platform" in association with Institute of Engineers, held at BCREC, Durgapur as a joint convener on 28th and 29th April 2017.

Participation in administrative committees (selected)

Name of the post (Convener/Joint Convener/Member secretary/Co-ordinator etc.), Name of the committee, year

- PG (M.Tech) course coordinator, Dr. B. C. Roy Engineering College, Durgapur.
- Co-chair, upcoming multidisciplinary conference on "Mathematics, Engineering and Science" (MESIICON 2022), Dr. B. C. Roy Engineering College, Durgapur.

Project Ideas Submitted to Govt. Agencies/ On-going Projects / Research Ideas under preparation & execution

- **IOT-enabled activity recognition for elderly care: A non-invasive approach.**
 - Funding Agency: TARE, SERB, Govt. of India.
 - Investigators: Dr. Arindam Ghosh, Prof. Subrata Nandi.
 - Under review

Membership of professional bodies: IEEE, IETE, IEL, CSI, MGMI etc.

- IEEE, CSI