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Sucharita Mitra (Sarkar)

Academic Qualifications

- Ph.D.(Tech.) degree in **Measurement and Instrumentation** (Biomedical) in June, 2005 from University of Calcutta through Department of Applied Physics.
- Master's degree in **Electronic Science** (full time program), in 1997 from Calcutta University, India. Obtained a First Class with 79.3% marks.
- Bachelor's degree in Science (**Physics Honours**) in 1995 from Calcutta University, India. Obtained a First Class with 64% marks.

Academic Achievements

- Delivered an Invited Talk in **University of Zaragoza, Spain** on "**Data Embedding, Compression, Transmission and Processing of ECG Signal**" on 29th April, 2015.
- Delivered an invited lecture at Richard Doll Lecture Theatre of **University of Oxford, UK** on "**ECG Processing**" on 2nd October, 2012.
- **INSA Visiting Scientist Award** for the year 2022 -2023.and Worked at "Center for Digital Health : Public Health Foundation of India, Gurugram, Delhi.

Fellowships / Scholarships/ Awards

- Awarded **IETE – K S Krishnan Memorial Award** for best System Oriented paper for the year 2023 by Institute of Electronics and Telecommunication Engineers. India
- Obtained **DBT-CREST award 2012** from Department of Biotechnology (DBT), Government of India and achieved a **post-doctoral** visit for 4 months at Institute of Biomedical Engineering(IBME) under Department of Engineering Sciences, **University of Oxford, UK**.
- Awarded **Post Doctoral Research Fellowship** by Indian Institute of Science and Department of Biotechnology (IISC-DBT), Government of India in 2006.
- Awarded **Senior Research Fellowship** by the Council of Scientific and Industrial Research(CSIR), Government of India in 2003.
- Obtained a prize in **National level contest** "Future Technologies: Your Dream and Vision" organized by IEEE Gujarat Section.

Research Interest

Soft Computing and AI based Digital Health Care System, Signal Processing with special reference to Biomedical Signals, Image Processing, Pattern Recognition etc.

Publications	26 Journal papers + 10 Book Chapters + 28 International conference papers + 9 National conference papers (Ref: Publication List). https://scholar.google.com/citations?hl=en&user=M1WAfREAAAAJ&view_op=list_works
Teaching Experience	**From March 2021 to Date (PG)** Working as a Guest Faculty at **Electronic Science Department of University of Calcutta since 2021 to date** to undertake 20 classes of 4th Semester on **Instrumentation** and since 2024 to date to undertake 40 classes of 3rd Semester on **Non-Conventional Energy Sources.** **From September 2005 to 2010 (PG)** Associated with **Department of Applied Physics, University of Calcutta** as a guest faculty for taking classes of B.Tech and M.Tech level. Subjects taught: Programming Languages, Computer Organization and Networking, Digital Signal Processing, Biomedical Instrumentation etc. **From September 2008 to date (UG)** Working as a full time Associate Professor (permanent position, appointed by College Service Commission, Government of West Bengal) in Electronics Department of Netaji Nagar Day College, affiliated to University of Calcutta. Acting as HOD since September, 2010. Also attached with Department of Physics for taking Honours classes. Subjects taught: Classical Mechanics, Solid State Physics, Semiconductor Devices, Network, Amplifiers, Oscillators, Operational Amplifiers, Digital Electronics, Instrumentation, Electromagnitism, Transmission lines, waveguide, Communication, Computer Programming, Microprocessor [Theory & Practical]
Research Guidance	Number of Ph.D Awarded = 2 1.Sri Sourav Kumar Mukhopadhyay, Senior Research Associate, Department of Applied Physics, University of Calcutta (awarded in February, 2015) Title of the Thesis: "**An Approach to Develop a Remote Tele-cardiology System for Compression, Transmission and Analysis of ECG signal".** 2, Sri Basudev Halder, Faculty, Neotia Institute of Technology, Management and Science Title of the Thesis: "**Application of soft computing techniques for compression, analysis and classification of cardiac signals"**
Research Project as Principal Investigator	• Title : **Development of a Cardiac Patient Care Unit by Using Rough-set Disease Inference Engine,** funded by: UGC (MRP) , Duration: Two years started from : July 2014
Organisation of Seminar / Paper Presentation	• Organised a UGC sponsored National Level Seminar on "Applied Science in Bioinformatics", at Netaji Nagar Day College, Kolkata-92, India in 2012 as **Convenor**. • Presented paper at CIIC Kolkata in 2001. • Presented paper at BIOVISION held at IISC, Bangalore in 2001. • Presented paper at ICBME held at Singapore in 2002. • Presented paper at CODIS held at Kolkata in 2004.

- Presented paper at West Bengal State Science and Technology conference in 2006.
- Presented paper at IETE Mid Term Symposium in 2006.
- Presented paper at MS'07, Kolkata, India in 2007.
- Presented paper at PreMI'07, ISI, Kolkata, India in 2007.
- Presented paper at CIEC'14, Tech Campus, University of Calcutta, 2014.
- Presented paper at EDCT'18, Gurunanak Institute of Technology, Kolkata,2018

Research Training abroad

- Attended a 2 week course on Advanced Signal Processing at Centre for Doctoral Training (CDT) of IBME at **University of Oxford, UK.**
- Visited **University of Zaragoza**, Spain as a visiting scientist for three weeks.

Professional and Research Experience

January 1998 to June 2000

Worked at Computer Vision and Pattern Recognition (CVPR) Unit in Computer Science Department of Indian Statistical Institute (ISI) Calcutta, as a Junior Technical Assistant (JTA) in the project entitled as "Development of Bilingual (Bangla & Devnagri) Optical Character Recognition (OCR) System". The Department of Science and Technology (DST), Government of India has sponsored the project.

September 2000 to July 2003

Worked at the CVPR Unit of ISI as a Project Linked Personnel (Computer Research) in a purely IT based project entitled as" Resource Centre for Indian Language Technology Solutions-Bengali". The Ministry of Information Technology (MIT), Govt. of India, has funded the project.

August 2003 to July 2006

Attached with Department of Applied Physics, University of Calcutta as a Senior Research fellow. Fellowship awarded by the Council of Scientific and Industrial Research, Government of India.

January 2007 to September 2008

Worked as a Post Doctoral Fellow at CVPR Unit of Indian Statistical Institute, Kolkata under the IISC-DBT Postdoctoral Research Fellowship Scheme.

October 2012 to Jan 2013

Worked as a Visiting Post Doc at IBME, Department of Engineering Sciences, University of Oxford, UK. Working with Dr. Gary Clifford, Head of the Intelligent Patient Monitoring (IPM) Group after getting DBT-CREST award from GOI.

Doctoral Research

Title of the thesis: ***"Biomedical Signal Extraction and Processing for Digital Time Database Generation and Abnormality Detection".***

Supervisors: **Dr. M. Mitra** of Department of Applied Physics, University of Calcutta
Prof. B.B. Chaudhuri of CVPR unit of Indian Statistical Institute

Fellowship Offered by: **Council of Scientific and Industrial Research (CSIR)**

Memberships

Life Member of the Bio-medical Engineering Society of India.