



Avik Ghosh Dastidar

Assistant Professor, Department of Physics
Regent Education and Research Foundation Group of Institutions

Contact Details

 link.agdastidar@gmail.com

 9433742010

 274, Purba Sinthee Road
Dumdum, Kolkata, West
Bengal, PIN 700030

Administrative Work

- 12 years' experience in AICTE approval, MAKAUT Affiliation;
- AISHE, NIRF data submission;
- NAAC Cycle 1, Cycle 2;

Technical Skills

COMSOL
C, FORTRAN, Python, MATLAB
Arduino
Photoshop
MS Word, Excel, PowerPoint
Windows, Linux

Experience

Teaching: **13 years**
Research: **8 Years**

Publication Count

Journal Paper: **05**
Conference Paper: **04**
Book Chapter: **01**



Objective

To effectively teach the students of college/university and motivate them from very beginning to contribute towards Research and Development in India through sincere effort.



Work Experience

18/08/2010
to Present

Assistant Professor

Department of Physics
Regent Education and Research
Foundation, Barrackpore, Kolkata

- Teach Physics and other subjects
- Maintain and prepare necessary documents related to affiliation / approval processes for AICTE and other regulatory bodies

14/01/2010 to
13/08/2010

Senior Faculty

Department of Physics
St. Peter's Group of Institutions, Sector V,
Saltlake, Kolkata

- Teach Physics and allied subjects

06/01/2009 to
13/01/2010

Senior Research Fellow

Jadavpur University, Kolkata

- Run a global T120 spectral NWP model, named 'Varsha', developed by National Aerospace Laboratories (NAL) in parallel processing mode in a four node Linux cluster.
- Study a quantitative analysis of the performance of the model for a long period like 10 years over India.

25/05/2006 to
05/01/2009

Junior Research Fellow

Jadavpur University, Kolkata

- Perform a detail analysis of the global output of T80 model (a Numerical Weather Prediction model) for the years of 2001 to 2005 operational at NCMRWF, Delhi.
- Verification of the above output has been done with observed (analysis) data.



Education

PhD, Registered on 25/07/2019

Mizoram Central University, MZU
Registration number: MZU/Ph.D./1681 of 25.07.2019
In progress

MCA, 2008

Indira Gandhi National Open University (IGNOU), Delhi
First Class (63.28%)

M.Sc. in Physics (Electronics Special Paper), 2005

Jadavpur University, Kolkata
Second Class (56.27%)

B.Sc.(H) in Physics, 2001

University of Calcutta, Kolkata
Second Class (57.25%)

Higher Secondary, 1998

Scottish Church Collegiate School, Kolkata
First Division (73.7%)

Madhyamik, 1996

Ramakrishna Mission Vidyalyaya, Narendrapur, Kolkata
First Division (78.0%)



Publications

1. "Higher order Markov chain models for monsoon rainfall over West Bengal, India." IJRSP, Vol 39, Feb 2010
2. "Statistical analysis of monsoon rainfall distribution over West Bengal, India." Mousam, Vol 61, Issue 4, Oct 2010
3. "An efficient electrostatic actuation model for MEMS-based ultrasonic transducers with fringing effect", Microsystem Technologies. Springer, Vol 29, P 583–597, Jan 2023
DOI: <https://doi.org/10.1007/s00542-023-05412-1>
4. "Squeeze Film Effect in Surface Micromachined Nano Ultrasonic Sensor for Different Diaphragm Displacement Profiles", Sensors, MDPI, Vol 23, Issue 10, P 4665, May 2023
DOI: <https://doi.org/10.3390/s23104665>
5. "An analytical and FEM simulation-based study of the dependence of capacitance profile on structural parameters of CMUT with and without vent", Microsystem Technologies. Springer, Sep 2023
DOI: <https://doi.org/10.1007/s00542-023-05537-3>

Conferences

1. "Performance of silicon nitride as structural material in MEMS pressure sensors", 2nd International Conference on Mathematical Techniques and Applications (ICMTA-2021), March, 2021
2. "Displacement Profile of Micromachined Nano-Electro-Mechanical-Ultrasonic Pressure Sensor: A Comparative Analysis", 2021 IEEE 21st International Conference on Nanotechnology (NANO), July, 2021
3. "Dependence of Capacitance Profile on Structural Parameters of CMUT with and without Vent", 5th International Conference on Energy Systems, Drives and Automations, December, 2022
4. "Analysing the Effect of Silicon Nitride as Structural Material in Gas Pressure Sensors", 2nd Annual Convention of North East (India) Academy of Science and Technology (NEAST) & International Seminar on Recent Advances in Science and Technology (ISRAST), November, 2020

Book Chapter

Dastidar AG, Maity R, RC, Ghosh D, "Validation of the Theoretical Prediction of Capacitance of Circular Multi-Vented CMUT: A FEM Approach", Synthesis III, 2003, Levant Books, pp. 49-54
ISBN: 978-93-91741-93-8

Awards

Graduate Aptitude Test in Engineering (GATE), India, 2006

PhD Particulars

Topic: "Modeling, Simulation and Analysis of Micro-Electro-Mechanical-Systems Based Ultrasonic Transducer"

Supervisor: Prof. R C Tiwari, Professor, Department of Physics, Mizoram University (A Central University), Aizawl

Joint-Supervisor: Dr. Reshmi Maity, Associate Professor, Department of Electronics and Communication Engineering, Mizoram University (A Central University), Aizawl

Date of Registration:
25/07/2019

Registration No:
MZU/Ph.D./1681 of 25.07.2019

Coursework Completed:
12/02/2020

Coursework SGPA: 8.67

Key Factors

Hard Working
Patience
Adaptability
Ethics
Collaboration
Critical Thinking



FDP / Certification

- **Embedded Systems-Design Verification and Test (FDP)**
NPTEL Topper (81%), Jun-Oct 2018
- **Solid State Physics**
NPTEL (81%), Jun-Oct 2018
- **2 Days Instructor Led Live Online Workshop On ML & AI Using Covid-19 Virus Data Analysis**
Finland Labs (A Unit of Revert Technology Pvt. Ltd.)
In Association with National Social Summit, IIT Roorkee
May, 2020
- **Introduction and Programming with IoT Boards**
Pohang University of Science and Technology,
Coursera, May 2020
- **Programming for Everybody (Getting Started with Python)**
University of Michigan, Coursera, Jun 2020
- **Python Data Structures**
University of Michigan, Coursera, Jun 2020
- **Using database with Python**
University of Michigan, Coursera, Jun 2020
- **Using Python to Access Web Data**
University of Michigan, Coursera, Jun 2020
- **The Joy of Computing using Python**
NPTEL (75%), Jan-Apr 2024
- **Python for Data Science**
NPTEL (79%), Jan-Feb 2024



Personal Details

Date of Birth: March 8, 1980
Gender: Male
Height: 166 cm
Language Known: Bengali, Hindi, English
Marital Status: Married
Nationality: Indian
Hobbies & Interests: Reading books, Recitation, Music, Travelling, Electronics