

CURRICULUM VITAE

DR. PRATIKSHA SARMA

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❖ **DESIGNATION:**

Post Doctoral Fellow,
Technology Innovation Hub (TIH), IIT Guwahati TIDF,
IIT Guwahati, Amingaon, North Guwahati, Assam – 781039

❖ **PROFILE LINKS:**

Google Scholar: <https://scholar.google.co.in/citations?user=8i3gSVUAAAAI&hl=en>

OrcID: <https://orcid.org/0000-0002-3264-1617>

ResearchGate: <https://www.researchgate.net/profile/Pratiksha-Sarma-2>

Semantic Scholar: <https://www.semanticscholar.org/author/Pratiksha-Sarma/39806501>

LinkedIn: <https://www.linkedin.com/in/dr-pratiksha-sarma-4b081028/>

❖ **EDUCATIONAL PROFILE:**

Examination/ Degree	Board/ University/ Organization	Subjects/ Specialization	Duration/ Year of Passing	Marks in % / CGPA
HSLC	SEBA	Maths, Gen. Sci, Soc. S, Gen. Eng, Assamese, Eng ³	2005	83.5 %
HS	AHSEC	Phy, Chem, Maths, Bio, Eng, Alt. Eng	2007	70.80 %
B.E.	Gauhati University	Applied Electronics and Instrumentation Engineering	2007 - 2011	75.93 % (with Honors)
M. TECH	Gauhati University	Electronics and Communication Technology	2011 - 2013	7.94
Ph. D	Gauhati University	Design consideration of Fiber Optic Viscometer For determining dilution level of Newtonian Liquids	2015 –2022	7.25 (Course Work)

❖ PROFESSIONAL WORK EXPERIENCE:

➤ **Designation: Post-Doctoral Fellow**

Department: Technology Innovation Hub, Research Building

Organization: IIT Guwahati - Technology Innovation and Development Foundation

Duration: 27th August, 2023 to till date

Work Description: Research and development of technologies for underwater Applications, Conducting Human Resource Development and Skill Development Courses

➤ **Designation: Assistant Professor**

Department: Applied Electronics and Instrumentation Engineering

Organization: Girijananda Chowdhury Institute of Management and Technology, Hathkhowapara, Azara, Guwahati – 17

Duration: 1st August 2012 to 27th December 2016. (4 years, 4 months, 27 days)

Work Description: Teaching (taking classes), conducting labs, Departmental Project Coordinator, Examiner, Paper setting under G.U., A.S.T.U, participating in accreditation work, coordinating college events etc.

❖ RESEARCH PUBLICATIONS:

A. JOURNALS:

- (i) "Efficiency enhancement of hybrid-solar cell by optimizing CuSCN and V2O5 based dual hole transport layer", Sagar Bhattarai, Pranjal Barman, Anindita Borah, **Pratiksha Sarma**, Mrinal Kanti Sikdar, Pallab Sarmah, D.P. Samajdar, Jaya Madan, , **Solar Energy**, Volume 275, 2024, 112652, ISSN 0038-092X, <https://doi.org/10.1016/j.solener.2024.112652>.
- (ii) "Fiber Optic Capillary Flow Viscometer," **P. Sarma**, H. K. Singh and T. Bezboruah, in **IEEE Sensors Letters**, vol. 3, no. 2, pp. 1-4, Feb. 2019, Art no. 5000104, <https://doi.org/10.1109/LENS.2018.2885312>.
- (iii) "A Real-time data Acquisition System for Monitoring Sensor Data", **Pratiksha Sarma**, Hidam Kumarjit Singh, Tulshi Bezboruah, in International Journal of Computer Science and Engineering (**IJCSE**), UGC Approved till 2019 (Impact Factor: 3.802), <https://doi.org/10.26438/ijcse/v6i6.539542>
- (iv) "Design of an LVDT based Digital Weighing System", **Pratiksha Sarma**, Pradip Kumar Bordoloi, in the Journal of Electronics and Computer Science Engineering, Vol 1, No 4, 2012.

B. CONFERENCES ATTENDED:

- (i) **P. Sarma** and T. Bezboruah, "Design and Implementation of a GUI based Automatic Thermostat Controller", 2021 IEEE Mysore Sub Section International Conference (MysuruCon), Hassan, India, 2021, pp. 561-565, <https://doi.org/10.1109/MysuruCon52639.2021.9641561>.
- (ii) Rulia Azam, **Pratiksha Sarma**, Tulshi Bezboruah and Rupjyoti Haloi, "Intensity Modulation based Measurement of Refractive Index of Colorless liquid using

Optical Fiber", TECHNOVA 2016, organized by Dept. of ECT, Gauhati University and Krishi Sanskriti, New Delhi held on 22nd – 23rd December, 2016.

- (iii) P. Sarma, S. R. Nirmala and K. K. Sarma, "ECG classification using wavelet subband energy-based features," 2014 International Conference on Signal Processing and Integrated Networks (SPIN), Noida, India, 2014, pp. 785-790, <https://doi.org/10.1109/SPIN.2014.6777061>.
- (iv) P. Sarma, S. R. Nirmala and K. K. Sarma, "Classification of ECG using some novel features," 2013 1st International Conference on Emerging Trends and Applications in Computer Science, Shillong, India, 2013, pp. 187-191, <https://doi.org/10.1109/ICETACS.2013.6691420>.
- (v) Presented a paper titled '**Prediction of Cardiac Arrhythmias using Artificial Neural Network**' in **National Seminar on Frontiers in Science and Technology, organized by Assam science Society and Gauhati University**, held on 8-9th March, 2013.

C. BOOK CHAPTER:

- (i) ***A Computer Based System for ECG Arrhythmia Classification*** on the book titled ***Intelligent Applications for Heterogeneous System Modeling and Design*** published by IGI Global, 2015.
DOI: 10.4018/978-1-4666-8493-5.ch007

❖ WORKSHOPS ATTENDED:

- i) Participated in 6-day National workshop on **Remote Sensing and signal processing**, organized by Dept. of ECT, Gauhati University, sponsored by IEEE GRSS Kolkata Chapter, held during 26th November – 1st December, 2018.
- ii) Participated in 2-day National workshop on **Remote Sensing and signal processing**, organized by Dept. of ECT, Gauhati University, sponsored by IEEE GRSS Kolkata Chapter, held on 15th-16th May, 2017.
- iii) Participated in a 2-day workshop on "**Advanced MATLAB Applications (ADMAT 2016)**", held in 1-2 October at IIT-Guwahati.
- iv) Participated in a 2-day workshop on **Mobile Application Development** organized by Dept. Of CSE, GIMT-Guwahati, held on 4-5 May, 2016.
- v) Participated in 3-day International Conference **EDCAECT 2015**, organized by Dept of ECT, Gauhati University on 8-10th October 2015.
- vi) Participated a 5-day **Faculty Development Program (FDP)** on "Meeting Global Challenges in Higher Technical Education" organized by GIMT-Guwahati during 28th July to 1st August, 2015.
- vii) Participated in 2-day **IEEE workshop on Advanced MATLAB Applications (ADMAT-2015)** organized by IIT-Guwahati, held on 11th-12th April, 2015.
- viii) Participated in a 7-day workshop on **Labview and Selected Applications** organized by dept. of ECE and IEEE Student branch, held on 23rd-29th June 2014.
- ix) Participated in a 1-day workshop on **Medical Image and Signal Processing** conducted by the Department of Electronics and Electrical Engineering, IIT Guwahati held on 30th November 2012.

- x) Participated in a 3-Day workshop entitled **Fabrica-The Robotics Workshop** conducted by THE ARELAB in Pyrokinesis held from 13th-15th February 2009 at Assam Engineering College.
- xi) Participated in a 2-Day workshop on “**PC Assembling & Repairing**” from 23rd-24th June 2009 held by Assam Engineering Institute at the Department of Physics, Gauhati University.

❖ **ACHIEVEMENTS:**

- Finalist of **Intel India Embedded Challenge 2011**.
- **Gold medalist (1st class 1st position)** in the branch **Applied Electronics and Instrumentation Engineering of B.E. Final Examination 2011, under Gauhati University**.
- An awardee of **NEC Merit Scholarship** (Post-Graduation), 2011-2013.
- An awardee of **Visvesvaraya PhD Fellowship** (Part-time) scheme of MeitY, GOI.

❖ **EXTRA-CURRICULAR ACTIVITIES:**

- Secured 1st Position in **Radon**, the autonomous robotics competition (Group Activity) held during Euphuism'10, *the annual Cultural-Technical Fest* of Girijananda Chowdhury Institute of Management and Technology from 29th-31st Jan.
- Secured 2nd Position in **Dernier Espero**, the autonomous robotics competition (Group Activity) in Pyrokinesis'10, *the national level cum cultural festival* of Assam Engineering College held during 19th – 21st February.
- Fourth position in **Circuit Design** held during TechXETRA, from 18th-19th September'09 organized by Tezpur University.
- Awarded Certificate of Merit in
 - i) Mathematics Olympiad 2002, Cat- Jr organized by Assam Academy of Mathematics.
 - ii) Jigyas Talent search Examination conducted state wide by Jigyas Educational Society, Guwahati
 - iii) Appreciation Prize in Science Exhibition as Intra-School Activity. (Pacemaker model).

❖ **PROJECTS CARRIED OUT:**

- i) Designed and implemented a **GUI based Fiber Optic Viscometer** in partial fulfilment of the Ph.D degree. Below is the link to the device designed:
(https://www.youtube.com/watch?v=KZKiEEq3_90&t=4s)
- ii) Worked on '**Design of ECG Classifier System for Diagnosis of Cardiac State**' as M. Tech dissertation work.
- iii) Worked on '**HOMEBOX- an automatic control and surveillance system for homes**' in Intel India Embedded Challenge 2011.
- iv) Worked on '**LVDT based Digital Weighing System**' as B.E. 8th Semester project.
- v) Worked on '**Line Voltage monitoring system**' using Microcontroller 89s52 as B.E. 7th Semester project.
- vi) Developed a program in C++ to calculate phasor current or voltage in a RLC circuit as B.E. 3rd Semester mini-project.

❖ **MEMBERSHIPS:**

1. A Graduate Student member of **IEEE Technical Society, WIE** from March 2024.
2. Life Member (LM 103598) of **Indian Society for Technical Education (ISTE)** since 2015
3. A Student Member of **IEEE Technical Society** from March 2018 to December 2021.

❖ **INDUSTRIAL TRAINING:**

- Undergone one-month Industrial training at **Oil India Limited, Duliajan** from 15th June to 15th July for 15 days each at the Department of Well Logging and Department of Instrumentation.
- Completed one-month summer training program on Embedded Systems: Design, Development and Application at Brigosha Technologies Private Limited, **TIC, Technology Complex, IIT Guwahati** on 13th July, 2012.

❖ **SKILLS:**

Technical: Applied Electronics, Instrumentation, Sensor designing and implementation, Data collection, analysis and interpretation, Fiber Optic Sensors, Viscosity measurement, Biomedical Signal processing, Artificial Neural Networks, Experimental hardware designing, GUI Development.

Programming Languages: C++, embedded C, C#.

Software: MATLAB, LaTeX, Express PCB, Keil IDE, Proteus, Xilinx, Arduino IDE

Qualities: Flexible and Adaptable, Hard worker, Willingness to learn, committed to work.

❖ **PERSONAL PROFILE:**

Nationality: Indian

D.O.B.: 07-12-1988

Address For Correspondence: H/N 10, Sanjog Path, Shiv Mandir Road, Khanapara, Guwahati-781022

Permanent Address: H/N 143, M. G. Road, Bharalumukh, Guwahati - 781009

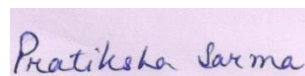
Language Spoken: Assamese, English, Hindi

DECLARATION:

I hereby declare that the information I have furnished above is true to the best of my knowledge.

Date: 17-07-2024

Place: Guwahati



(PRATIKSHA SARMA)