

# SRICHETA PARUI

Research Scholar (*PhD synopsis due soon*)

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in https://www.linkedin.com/in/sricheta-parui-78600a107/    https://github.com/paruisri



## WORKING EXPERIENCE

Teaching and Laboratory Assistant

Dept. of Computer Science and Engineering, IIT Kharagpur, India

📅 Sep'21 - Jun'22 & Jan'20 - May'20    📍 Kharagpur, India

- **Course:** Programming & Data Structure Lab

Teaching Assistant

NPTEL (National Programme on Technology Enhanced Learning)

📅 Jan'21 - Mar'21 & Jan'20 - Mar'20    📍 IIT Kharagpur, India

- **Course:** Introduction to Soft Computing (noc21-cs11)

Teaching Assistant

Dept. of Computer Science and Engineering, IIT Kharagpur, India

📅 Aug 2020 - Jan 2020    📍 Kharagpur, India

- **Course:** Data Analytics Subject Code- CS40003

Teaching & Laboratory Assistant

Dept. of Electrical Engineering, Jadavpur University, Kolkata

📅 July 2017 - May 2018    📍 Kolkata, India

- **Course:** Control System Engineering Lab, Robotics Lab

## SKILLS AND EXPERTISE

### 💻 Professional Engineering Skills

- **Courses Undertaken in Computer Sc. Engg.:** Artificial Intelligence, Soft Computing, Machine Learning, Data Structure, Algorithm, Deep Learning, Advanced Data Science, Data Analytics
- **Courses Undertaken in Electrical Engineering:** Control System Engineering, Digital Signal Processing, Signal and Control System, Modelling and Simulation of Dynamic Systems, Flight Dynamics, Rocket and Missiles, Analog and Digital Electronics.
- **Courses Undertaken in Mathematics:** Linear Algebra, Numerical Method, Vector Analysis, Integral Calculus, Probability theory.

### 📊 Programming and Computational Skills

- **Programming Languages and Tools:** Python, C, MATLAB, EEGLAB, SCILAB, JAVA, TensorFlow, Pytorch, nilearn, CPAC

### 👤 Soft Skills

- Strong communication and presentation skills.
- Leadership and coaching skills.
- Excellent problem-solving skills, teamwork, and collaboration skills.

## THESIS DETAILS - PHD, M.E, & B.TECH

- **Ph.D. Thesis Title -** 'Brain Signal Analysis for Psychophysiological Characteristics Assessment using Artificial Intelligence', under the supervision of **Prof. Debasis Samanta** (Dept. of CSE, IIT Kharagpur, India) and **Prof. Nishant Chakravorty** (SMST, IIT Kharagpur, India).
- **M. Tech Thesis Title -** 'EEG Signal Analysis for learning and working memory modeling', under the supervision of **Prof. Amit Konar** (Artificial Intelligence Lab, ETC, Jadavpur University, WB, India)

## EDUCATION

Pursuing Ph.D. in Engineering  
(Computer Science and Engineering)

Indian Institute of Technology Kharagpur

📅 July 2018 - Present || *Course CGPA: 8.86 / 10*

Masters in Engineering in Control  
System Engineering (CSE)

Dept. Of EE, Jadavpur University, India

📅 2016 - 2018 || *CGPA: 9.44 / 10*

B.Tech in Instrumentation & Control  
Engineering (ICE)

Calcutta Inst. of Engg. and Mngmnt., India

📅 2012 - 2016 || *CGPA: 8.93 / 10*

Higher Secondary in Science

Fatepur Srinath Institution (WBCHSE)

📅 2010 - 2012 || *Aggregate: 83%*

Secondary Exam

Amtala Nivedita Balika Vidyalaya (WBBSE)

📅 2009 - 2010 || *Aggregate: 84%*

## INTERNSHIPS/ TRAINING/PROJECTS

Visiting Scholar (Virtual)

Meharry School of Applied Computational  
Sc., Nashville, USA

📅 June 2022- Dec 2022

JTG/IEEE ITSoc Summer School

IIT Mandi

📅 June 2022- June 2022 (1 Week)

CPS Summer School

IIT Kharagpur and AI4ICPS

📅 July 2022- July 2022 (2 Weeks)

Visiting Scholar (Virtual)

Vanderbilt University, Nashville, USA

📅 June 2021- Dec 2021

Machine Learning Engineer

Amazon Web Service - Udacity

📅 June, 2021 - Present

AI and ML using Python

Girls Script, India

📅 April, 2021 - Present

Wrkshp on Accelerated Data Sc.

NSM Nodal Cntr., IIT KGP & NVIDIA India

📅 Feb 2020 (2 days)

- **B. Tech Thesis Title** - 'Cascade IMC Controller Design for Heating Furnace Temperature Control', under the supervision of **Prof. Somnath Garai** (HOD (ICE), CIEM Kolkata, WB, India).

## RESEARCH INTERESTS

- Brain Computer Interface, Neurodisorder Detection, Signal Processing, Artificial Intelligence, Machine Learning, Deep Learning, Data Science, Emotion Recognition, Biomedical Image Processing, Sensors, Algorithm, Internet of Things, etc.

## AWARDS AND ACHIEVEMENTS

- Winner of **Google Student Scholarship** in 2021 Google Doctoral Consortium, for the project "A low-cost commercial handheld wireless EEG signal tracking software to measure the attention of students during on-line classes" funded by **Google** and conducted by the **30th International World Wide Web Conference – TheWebConf'21**
- Winner of **ACM India Anveshan Setu Fellowship** in 2023
- Winner of the prestigious **Richard E. Merwin Student Scholarship** from **IEEE Computer Society** in 2022.
- **IEEE Lance Stafford Larson Student Award 2021 (Best Paper Contest)** for the paper "A Novel Cognitive Framework for Audio Visual Stimulus based Emotion Recognition from EEG signal using En-FS and SEn-G model" from **IEEE Computer Society** in 2021.
- **Young Scientist Conference Awardee 2020** secured Second Position on the theme "Quantum Computing and Artificial Intelligence" in the Young Scientists' Conference an event under the Sixth edition of 'India International Science Festival (IISF-2020)' in 2020
- Participated in **IEEEExtreme 14.0 and 15.0** and served as **IEEE Kharagpur Ambassador** in 2020 and 2021.
- **International Young Researcher Award 2020-21** at *International Institute of organized Research (I2OR)*, June 2021.
- **Gold Medal & Univ. Topper** in the West Bengal University of Technology 2016 (B.Tech – ICE – CIEM, Kolkata, West Bengal, India).
- **Quiz Champion of Embedded Technology Quiz Competition 2019** held in Biswa Bangla Convention Centre Rajarhat, Kolkata, India organized by the *Department of Information Technology and Electronics, Government of West Bengal, India*
- **Quiz Champion of Artificial Intelligence Quiz Competition 2018** held in Biswa Bangla Convention Centre Rajarhat, Kolkata, India organized by the *Department of Information Technology and Electronics, Government of West Bengal, India*
- Recipient of **UGC Post Graduate Indira Gandhi Single Girl Child Scholarship, 2016-2018**
- Recipient of **Swami Vivekananda Merit Cum Means scholarship** from **Govt. of West Bengal, India** during my *B. Tech program (2012-2016) and Higher Secondary Program (2010-2012)*
- **Best Paper/Poster Award:** IEEE SIGHT Pratham IEEE Bombay Section's Digital Poster Making Competition 2022, IEEE CS BDC SS'21, Project Presentation Competition in STACK hosted by IEEE IEM SB on the track AI, ML, IOT, Mindshare YUVA'21.
- **Travel/Conference Grants:** ARCS 2023 and ACM India Annual Event 2023, D & I track Scholarship to attend CODS-COMAD conference 2023, Internet Society inSIG 2022, Youth Internet Governance Forum Fellowship 2021
- **Fellowship and Contingency Grants:** IndoML'22, IEEE SPS Summer School, IEEE ComSoc Summer School 2021 and 2022, ACM Summer and Winter Schools 2021, AWS, GirlScript Foundation, Indian Oil Fellowship

## INTERNSHIPS/ TRAINING/PROJECTS

Workshop on Artificial Intelligence

**RineX E-cell, IIT Kharagpur**

📅 Feb 2021

UPE Phase II, Cognitive Science

**Jadavpur University, Kolkata, WB**

📅 Jan, 2018 – May 2018

Course on Brain Computer Interfacing for Retaliative Robotics

**JU, WB & RTU**

📅 Mar, 2018 (3 days)

Industrial Training on Power Supply Arrangement

**Eastern Railway, Howrah, WB, India**

📅 Jan 2015 (15 days)

Summer Internship Program

**Diamond Beverages (P) Lmted., WB**

📅 Jun 2015 (30 days)

Workshop on Design and Development of Small Satellite

**ESCI & CIEM, Kolkata, WB**

📅 Feb 2015 (2 days)

## ADMINISTRATIVE

General Body Member

**ATDC Society, IIT Kharagpur, India**

📅 May 2022 – Present

Training and Placement Coordinator

**T&P Cell of Jadavpur University WB, India**

📅 July 2017 – Dec. 2019

Training and Placement Coordinator & Dept. Representative of ICE

**Innovation and Placement Cell of CIEM, Kolkata, WB India**

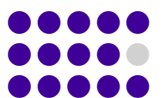
📅 July 2015 – July 2016

## LANGUAGES KNOWN

English

Hindi

Bengali



## HOBBIES

- Public Speaking, Recitation, Writing
- Mentoring and Guiding students
- Painting, Dancing Bharatnatyam, Reading books

## PROJECTS & RELATED PUBLICATIONS

1. "Artificial Intelligence and Sensor-Based Autism Spectrum Disorder Diagnosis Using Brain Connectivity Analysis" - **Computers and Electrical Engineering, Elsevier, 2023**
2. "A Brain to UAV Communication Model using Stacked Ensemble CSP algorithm based on Motor Imagery EEG signal" - **IEEE ICC 2022**, Seoul, South Korea, May 2022
3. "An Advanced Healthcare System Where Internet of Things meets Brain-Computer Interface using Event-Related Potential" - **24th IEEE/ACM ICDCN'23**, IIT Kharagpur, India, Jan 2023.
4. "Emotion recognition from EEG signal using XGBoost algorithm" - **IEEE INDICON 2019**, Gujrat, India, Dec 2019
5. "A Study on Seizure Detection Performance in an Automated Process by Extracting Entropy Features" - **IEEE ICSPIS 2022**, University of Dubai, UAE, Dec 2022
6. "SEC-EnD: Stacked Ensemble Correlation-Based Feature Selection Method for Emotion Detection" - **IEEE SILCON 2022**, NIT Silchar, India, Nov 2022
7. "DAAL: A Deep Aggregated Assemble Learning Model for detecting Epileptic patients from EEG" - **IEEE Comsoc Ph.D. Edits 2022**, Bangalore, India, Nov 2022
8. "ParkINN: An Integrated Neural Network Model for Parkinson Detection" - **IEEE Comsoc Ph.D. Edits 2022**, Bangalore, India, Nov 2022
9. "Artificial Intelligence Induced Multi-Level Attention States Recognition from Brain using EEG Signal" - **IEEE ICSPIS 2021**, University of Dubai, UAE, Dec 2021
10. "An Improved Cognitive Approach for Automated Epileptic Seizure Detection from Multichannel EEG" - **IEEE WIECON 2021**, Dhaka, Bangladesh, Dec 2021.
11. "A Cognitive Framework to detect AUD patients from EEG signal using Hybrid Super Learning model" - **IEEE CONECCT 2020**, Bangalore, India.
12. "N400 Repetition Effects on Olfactory Memory Learning" - **IEEE ICCCI 2018**, Coimbatore, India, Jan 2018
13. "Cascade IMC controller design for heating furnace temperature control" - **International Journal of Engineering and Management Research (IJEMR)**, 2016
14. Find my other publications in my Google Scholar Account - click here

## VOLUNTARY CONTRIBUTIONS

1. **Junior Public Relations Officer:** IEEE Engineering in Medicine and Biology Society SAC (R10) in 2022
2. **Vice Chairperson and Asst. Treasurer:** IEEE WIE AG under Kharagpur Section (R10) in 2021 and 2022.
3. **Secretary:** IEEE Student Branch IIT Kharagpur of IEEE Kharagpur Section in 2022.
4. **Vice Chairperson** of IEEE Computer Society Student Branch Chapter, IIT Kharagpur in 2021.

## EXTRA CURRICULAR ACTIVITIES

**MENTOR** at **MENTOR4YOU** of IEEE YP Bangalore Section, **IEEE MOVE India Initiative** - IEEE USA and IEEE Bangalore Section(R10), **IEEE STEM Champion**, **Brand Ambassador**, **Womenpreneur Digital Hub**, and **Global Ambassador**, **WomenTech Network**  
**Others:** IEEE Volunteer (3+ years), ACM Women in India, Member of HelpAge India & Born 2 Help - Kharagpur

## MEMBERSHIPS

- ★ Graduate Student Member IEEE
- ★ Student Member ACM
- ★ Member Google Women Techmakers
- ★ Student Member IFERP
- ★ Youth Ambassador of Internet Society
- ★ Global Brand Ambassador IEEE
- ★ Global Brand Ambassador IEEE CS
- ★ Life Member and Fellow I2OR
- ★ Life Member Born2Help, India
- ★ Life Member HelpAge, India

## CERTIFICATIONS

- ★ Python for Everybody - **Unv. of Michigan**
- ★ Python in DS - **Unv. of Michigan**
- ★ Deep Learning Essentials - **IBM**
- ★ R Essentials - **IBM**
- ★ C#, JAVA, Python 3 Tutorials - **Sololearn**
- ★ NMA-Computational Neuroscience - **Neuromatch Academy**
- ★ Data Science Hands-On with Open Source Tools - **Neuromatch Academy**

## TPC MEMBER/

## ORGANIZER/REVIEWER

1. **Flagship Conferences:** IEEE ICC, ACM ICDCN, IEEE CONECCT, IEEE ICSPIS, IEEE TENSYP etc.

## RECOMMENDATIONS

- ★ **Name:** Prof. Amit Konar  
**Designation:** Prof. of Dept. of ECE, JU, Kolkata, WB, India.  
**Mail id:** konaramit@yahoo.co.in
- ★ **Name:** Dr. Manjira Sinha  
**Designation:** Assistant Prof., GSSST, IIT Kharagpur, India  
**Mail id:** manjira.sinha@cet.iitkgp.ac.in
- ★ **Name:** Dr. Uttam Ghosh, **Designation:** Associate Prof., School of Applied Computational Sciences, TN, USA  
**Mail id:** ughosh@mmc.edu

## OTHER DETAILS

- ★ **Date of Birth:** 1<sup>st</sup> March 1994
- ★ **Gender:** Female
- ★ **Marital Status:** Single
- ★ **Country of origin and residence:** India