

Dr. Gopal Chandra Jana

(*PhD IIITA, M.Tech.-CSE KIIT, B.E-IT BU*)



Home Address: Nibra, Kanikha, 721149, Kharagpur, Paschim Medinipur, West Bengal, India

📍 Current Address: B1-607, Supertech Upcountry, Sector-17A, Yamuna Expressway, Pin- 201310, Uttar Pradesh, India.

✉ gcjana@gcjana.in 📞 +91-9933672004, 9433166611 📱 WhatsApp 🌐 Website

🏠 Google Scholar 📄 ResearchGate 🐙 Github 🔗 LinkedIn 📅 26 Apr 1991

Profile

- Self-motivated, responsible scholar with demonstrated research expertise growing in the domain of EEG signals Analysis and Machine Learning.
- Having interpersonal skills to learn a new concept and apply it in research and academia.
- Rich experience in modeling and computer simulation, using MATLAB, Python.
- Experienced with mostly familiar EEG signals processing tools like EEGLAB with MATLAB, EDFbrowser, and pyEDF. Also, has some ideas related to other existing EEG data visualization and processing tools like Bioelectromagnetism-Matlab toolbox, eeg-analysis-toolbox with MATLAB, etc.
- Techniques explored and used related to Signal processing/Analysis are: Filtering techniques (Butterworth, etc.), FFT, DWT, EMD, ICA, etc.
- Techniques explored and used related to Machine Learning are: ANN, SVM, ELM, ANFIS, CNN, CapsNet, including Transfer Learning and Reinforcement Learning. Also, exploring explainable AI, DL, and RL concepts.
- Experienced with other popular tools like FSL, SPM, FreeSurfer, which is a comprehensive library of analysis tools for fMRI, MRI, and DTI brain imaging data.
- Experienced with Portable Batch System (PBS) to handle the distribution of batch jobs and interactive sessions across the available nodes in the high-performance GPU/CPU cluster. Explored the Google Cloud Platform for setting up a VM with a GPU for running high-performance computing jobs.
- Experienced with: Linux/Windows, High Performance Computing, LaTeX-Overleaf, Origin, MS Office, Moodle for LMS, etc.
- Experienced with manuscript preparation, review, modification, communication, rebuttal preparation for reviewers, and proofreading, etc., related to manuscript preparation for publication.

Believe In: Integrity, Responsibility, Continuity, Consistency, Dignity

Education

Jan 2018 – Aug 2024 Prayagraj, India	PhD Department of Information Technology, Indian Institute of Information Technology Allahabad ☑ Thesis Title: Development of Intelligent Schemes for Epileptic Seizure Detection using EEG Signals Grade Maintaining: 1st Class
Jul 2015 – Jul 2017 Bhubaneswar, India	Master of Technology (M. Tech.) - Computer Science & Engineering School of Computer Engineering, KIIT Deemed to be University ☑ Grade Maintained: 1st Class
Jul 2011 – Jul 2015 Burdwan, India	Bachelor of Engineering (BE) - Information Technology Department of Information Technology, University Institute of Technology, The University of Burdwan ☑ Grade Maintained: 1st Class
2009 Shyamchak, India	Higher Secondary Shyamchak Jnanendra High School Grade: 1st Division
2006 Kanikha, India	Secondary Kanikha Satish Chandra High School Grade: 1st Division

Teaching Experience

Mar 2025 – present Greater Noida, India	Assistant Professor (Gr-I), Dept. of CSE, Sharda School of Engineering & Technology, Sharda University, Greater Noida
--	--

Mar 2023 – Mar 2025
Greater Noida, India

Assistant Professor (Gr-I), DCSE, School of Computing Science and Engineering, Galgotias University

During regular semester (Jan-June'24) course handled as a Trainer for placement: Advanced Algorithmic Problem-Solving,

During regular semester (July-Dec'23) course handled: Data Structures

During regular semester (Jan-June'23) course handled: i) Algorithm Design and Analysis (DAA) and ii) Compiler Design

During summer semester course handled: i) Research Methodology and IPR, and ii) Foundation of Computer Application.

Research Experience

Jan 2018 – Jul 2020
Prayagraj, India

Junior Research Fellow (JRF)

IIIT Allahabad
Institute Fellowship.

Jul 2020 – Dec 2022
Prayagraj, India

Senior Research Fellow (SRF)

IIIT Allahabad
Institute Fellowship.

Aug 2017 – Dec 2017
Bhubaneswar, India

Junior Research Fellow

School of Computer Engineering, Campus – 15, KIIT University, Bhubaneswar, 751024, Odisha

Project Title: Intelligent Fault Distance Estimation Scheme for High Voltage AC and High Voltage DC Transmission Lines: An Comparative Study of Various Artificial Intelligent Techniques to Explore a Suitable Scheme

Funded organization: SERB-DST Department of Education, Govt. of India.

Principal Investigator: Dr. Aleena Swetapadma [✉](#)

Jul 2016 – Jul 2017
Bhubaneswar, India

Post Graduate Thesis

School of Computer Engineering, Campus – 15, KIIT University, Bhubaneswar, 751024, Odisha [✉](#)

Thesis Title: Discriminating Physical Movement Using Machine Learning Techniques based on EEG and EMG signals intended for Brain Computer Interface Applications

Supervisors: Prof. Prasant Kumar Pattnaik [✉](#) (Prof. @School of Comp. Engg.), Dr. Aleena Swetapadma [✉](#) (Assoc. Prof. @School of Comp. Engg.) and Dr. Biswajyoti Rath [✉](#) (Assistant Professor Neurology @KIMS, KIIT-DU Bhubaneswar during 2016-17).

May 2016 – Jun 2016

Student Volunteer

IIT Kharagpur

Project Title: CrowdMap [✉](#)

Nature of duties/work Performed: Data collection

Performance: Excellent

Mentor: Dr. Sandip Chakraborty [✉](#) (Asst. Professor, Dept. of Com. Sci. & Engg., IIT KGP). and Dr. Rohit Verma [✉](#) (Research Associate, Computer Laboratory, University of Cambridge).

Certificate: link [✉](#)

Jun 2014 – Jun 2015
Burdwan, India

Graduate Project

University of Institute of Technology, The University of Burdwan [✉](#)

Project Title: Invisible watermarking using reversible logic based on LSB technique

Supervisor: Mr. Sourav Samanta [✉](#), Assistant professor, Department of Computer Science & Engineering, University Institute of Technology, The University of Burdwan.

Teaching Assistant Experience

Jan 2018 – Dec 2022
Prayagraj, India

Teaching Assistant @IIIT Allahabad

Course Instructor: Prof. Anupam Agrawal, IIIT Allahabad

Nature of work: Tutorial and Practice

Involvement in the Courses:

- Image and Video Processing (UG and PG level)
- Artificial Intelligent (UP level)
- Advance Graphics and Animation (UP and PG level)
- Virtual Reality (PG level)

Involved in Projects Guidance:

Guided several Course projects (UG & PG level), Semester projects (UG & PG level) and Internships projects (UG level) which are specifically related to EEG and Machine Learning.

Administrative Experience

Sep 2024 – present Greater Noida, UP, India	Service Lead - Technical Training <i>Responsibilities assigned to organize Industry-Academia Technical Training activities for the School of Computer Science and Engineering, Galgotias University</i>
Jul 2023 – present Greater Noida, India	GU SCSE Exam Cell -Team member
Apr 2023 – present Greater Noida, India	Team Member Intel Center of Excellence @Galgotias University <i>*Under my mentorship, one student achieved Winner Award in the Intel Unnati Industrial Training-Summer'2023 and 10 students successfully completed their assigned project.</i>
Aug 2023 – Oct 2023 Greater Noida, UP, India	NAAC Criteria-3 <i>Responsibility: Core team members of NAAC Criteria-3 for data collection and verification of all data. School of Computing Science and Engineering, DCSE & DCA, Galgotias University</i>

Publications (S/W Copyright: 2, Journal Papers: SCIE-5, Scopus-2, Conf. Papers: 8)

Software Copyright:

- Anupam Agrawal, **Gopal Chandra Jana**, and Abhishek Karmakar “**EEG VMAC Toolbox**” Computer Software, Under Govt. of Indian Copyright, dairy no: **21361/2020-CO/SW. ROC No. SW-14530/2021.**
- Anupam Agrawal, **Gopal Chandra Jana**, et al., “**IIITA AlumniConnect : A community Platform to Bridge the Gap between Alumni, Students and Faculty**” Computer Software, Under Govt. of Indian Copyright, dairy no: **22845/2022-CO/SW. ROC No. SW-17059/2023.**

Refereed Journal Publications(SCIE):

- **Gopal Chandra Jana**, et. al., “**Capsule neural network based approach for subject specific and cross-subjects seizure detection from EEG signals**”, Multimedia Tools and Applications(Springer), 2023, Vol.xx, Issue x, PP.xx-xx (SCIE, IF 2.57, H-Index 80) DOI [✉](#)
- **Gopal Chandra Jana**, Anupam Agrawal et. al., “**DWT-EMD Feature Level Fusion Based Approach over Multi and Single Channel EEG Signals for Seizure Detection**”, Diagnostics(MDPI), 2022, Vol.12, Issue 2, PP.324 (SCIE, IF 3.99, H-Index 19). DOI [✉](#)
- **Gopal Chandra Jana**, Anshuman Sabath and Anupam Agrawal “**Capsule neural networks on spatio-temporal EEG frames for cross-subject emotion recognition**”, Biomedical Signal Processing and Control (Elsevier), 2022, Vol.72, No.B, PP.103361 (SCIE, IF 5.076, H-Index 72). DOI [✉](#)
- **Gopal Chandra Jana**, Mogullapally Sai Praneeth and Anupam Agrawal “**A Multi-View SVM Approach for Seizure Detection from Single Channel EEG Signals**”, IETE Journal of Research (Taylor & Francis), 2021, Vol. X, No. X, PP. XX-XX (SCIE, IF 1.87, H-Index 22). DOI [✉](#)
- **Gopal Chandra Jana**, Aleena Swetapadma and Prasant K. Pattnaik “**Enhancing the Performance of Motor Imagery Classification to Design a Robust Brain Computer Interface using Feed Forward Back-Propagation Neural Network**”, Ain Shams Engineering Journal (Elsevier), 2018, Vol. 9, No. 4, PP. 2871-2878 (SCIE, IF 4.79, H-Index 26). DOI [✉](#)

Refereed Journal Publications(Scopus):

- **Gopal Chandra Jana**, Aleena Swetapadma and Prasant K. Pattnaik “**A Hybrid Method for Classification of Physical Action Using Discrete Wavelet Transform and Artificial Neural Network**”, International Journal of Bioinformatics Research and Applications (IJBRA), Inderscience, 2021, Vol. 17, No. 1, PP. 25-37.(Scopus, ESCI). DOI [✉](#)
- Sabyasachi Chakraborty, **Gopal Chandra Jana**, et al. “**An improved method using supervised learning technique for diabetic retinopathy detection**”, International Journal of Information Technology, Springer, 2020, Vol. 12, PP. 473–477.(Scopus). DOI [✉](#)

Refereed Conference Publications (All are in Scopus Index):

- **Gopal Chandra Jana**, Abhishek Karmakar, Anupam Agrawal, “**EEG VMAC Toolbox: A User-Friendly Open-Source Toolbox for EEG Signals Visualization Manipulation Analysis and Classification**”, Procedia Computer Science - International Conference on Machine Learning and Data Engineering, 2025, Vol. 258, pp. 1062-1080. DOI [✉](#)
- Anupam Agrawal, Sharmistha Dey, and **Gopal Chandra Jana**, “**Depressive and Non-depressive Tweets Classification using a Sequential Deep Learning Model**”, 1st IEEE International Conference on Intelligent Systems, Advanced Computing and Communication (ISACC 2023), Silchar, India, 2023, pp. 1-6. DOI [✉](#)
- Shubham Chandra Joshi, **Gopal Chandra Jana**, and Anupam Agrawal, “**A Multi-view Representation Learning Approach for Seizure Detection over Multi-channel EEG Signals**” 10th International Conference on Frontiers of Intelligent Computing: Theory and Applications (FICTA) ,2022, Intelligent Data Engineering and Analytics, Vol. 327, pp. 375-385. DOI [✉](#)
- **Gopal Chandra Jana**, Aditya Tripathi and Anupam Agrawal “**EEG Channel Selection Approach for Seizure Detection Based on Integrated BPSO and ELM**”, 2020 7th International Conference on Signal Processing and Integrated Networks (SPIN), Noida, India, 2020, pp. 856-861. DOI [✉](#)
- **Gopal Chandra Jana**, Ratna Sharma and Anupam Agrawal “**A 1D-CNN-Spectrogram Based Approach for Seizure Detection from EEG Signal**”, Procedia Computer Science(Elsevier), Vol. 167, 2020, pp. 403-412. DOI [✉](#)
- **Gopal Chandra Jana**, Anshuman Sabath and Anupam Agrawal “**Performance Analysis of Supervised Machine Learning Algorithms for Epileptic Seizure Detection with high variability EEG datasets: A Comparative Study**”, 2019 International Conference on Electrical, Electronics and Computer Engineering (UPCON), ALIGARH, India, 2019, pp. 1-6. DOI [✉](#)
- Anupam Agrawal, **Gopal Chandra Jana**, Prachi Gupta “**A Deep Transfer Learning Approach for Seizure detection using RGB features of Epileptic Electroencephalogram Signals**”, 2019 IEEE International Conference on Cloud Computing Technology and Science (CloudCom), Sydney, Australia, 2019, pp. 367-373. [GGS Rating: B, Tier II] DOI [✉](#)

- **Gopal Chandra Jana**, Shivam Shukla, Divyansh Srivastava and Anupam Agrawal “*Performance Estimation and Analysis over the Supervised Learning Approaches for Motor Imagery EEG Signals Classification*”, 5th International Conference on Intelligent Computing and Applications (ICICA-19), Intelligent Computing and Applications, edited by Subhansu Sekhar Dash et al., Springer, 2021, pp. 125–41. Springer. DOI [↗](#)
- **Gopal Chandra Jana**, and Anupam Agrawal “*An Artificial Intelligence Method for Discriminating Eye state from Quantitative EEG*”, 2018 4th International Conference for Convergence in Technology (I2CT), Mangalore, India, 2018, pp. 1-7. DOI [↗](#)
- **Gopal Chandra Jana**, Aleena Swetapadma and Prasant K. Pattnaik “*An Intelligent Method for Classification of Normal and Aggressive Actions from Electromyography Signals*”, 1st International Conference on Electronics, Materials Engineering and Nano-Technology (IEMENTech), Kolkata, 2017, pp. 1-5. DOI [↗](#)

Communicated Research Works (S/W Copyright: 1, Journal Papers: SCIE-2))

Software Copyright:

- Anupam Agrawal, **Gopal Chandra Jana**, et al., “OnlineproctorE” Computer Software, Under Govt. of Indian Copyright, dairy no: 9847/2022-CO/SW.

Communicated Journal Papers (SCIE):

- **Gopal Chandra Jana et al.**, “*Automatic EEG Channel Selection for Seizure Detection: Two Hybrid Approaches Utilizing Binary Genetic and Jaya Algorithm with Extreme Learning Machine*” march'24.

Under Preparation and Ongoing Research Works

I'm involved in more that five research work which are related to Seizure Detection using machine learning techniques and EEG signals data. From those work, three will be completed soon and communicated to the journals sequentially.

Short Term Courses and Certificates

Feb 2024 – Apr 2024 Greater Noida, India	10-week Faculty Development Program (FDP) by GeeksforGeeks <i>GeeksforGeeks</i> FDP focused on: Data Structures, Design Algorithms and Analysis, and Advanced Algorithmic Problem-Solving Certificate: link ↗
Feb 2022 – Feb 2022 Rourkela, India	GAIN Course on "Adversarial Signal Processing and Machine Learning with applications to Multimedia Forensics" (14th Feb to 18th Feb, 2022)) ↗ <i>NIT Rourkela</i> Foreign faculty: Prof. Mauro Barni ↗ , University of Siena Certificate: link ↗
Dec 2021 – Dec 2021 India	Workshop on "Applications of Machine Learning in Signal, Image & Computer Vision" <i>IEEE UP Section, IEEE UP SPS Chapter, IEEE Young Professionals and BTKIT Dwarahat, Uttarakhand, India.</i> Organizers: The workshop is being organized under the banner of IEEE UP Section, IEEE UP SPS Chapter, IEEE Young Professionals and BTKIT Dwarahat, Uttarakhand, India. Course Duration: 27th Dec 2021 to 31st Jan 2021. Certificate: link ↗
Sep 2020 – Sep 2020 Chennai, India	30 Days Internship Program on Matlab <i>Pantech Prolabs India Pvt Ltd. and IETE Mumbai</i> Organizers: Pantech Prolabs India Pvt Ltd. ↗ and IETE Mumbai ↗ Course Duration: 1st Jun 2020 to 30th Jun 2020. Certificate: link ↗
Jun 2020 – Jun 2020 Gurugram, India	Faculty Development Program/Short Training on "Artificial Intelligence (AI), Machine Learning, Deep Learning & Its Applications <i>EduxLabs (Esoir Business Solution LLP)</i> Course Duration: 17th June to 28th June, 2020 Organized by: EduxLabs (Esoir Business Solution LLP) ↗ Certificate: link ↗
Jul 2018 – Jul 2018 Varanasi, India	3rd Indian Workshop on Machine Learning (IWML) ↗ <i>Department of Computer Science and Engineering at the Indian Institute of Technology (Banaras Hindu University)</i> Workshop Duration: July 01,2018 till July 03, 2018. Organizers: Dr. Amrita Chaturvedi ↗ and, Dr. Pratik Chattopadhyay ↗ and Dr. Lakshmanan K ↗
Oct 2017 – Oct 2017 Rourkela, India	GIAN Course on "Artificial Intelligence for MR Brain Image Processing" (October 9-18, 2017), ↗ <i>NIT Rourkela</i> Foreign faculty: Dr. Yudong Zhang ↗ Certificate and Grade Card links: Certificate link ↗ , Grade card link ↗ .

Research Interests

- Biomedical Signal and Image Processing
- EEG Signal Analysis
- Explainable Machine Learning
- Portable Real-time product for Healthcare
- Human and Brain Computer Interface
- Machine Learning
- Reinforcement Learning
- Assistive technology solution for healthcare and wellness
- Vision and Signal Processing
- Deep Learning
- Artificial Intelligence (AI) in Healthcare

Teaching Interest

UG Level



- Data structure, Database Management Systems, Introduction to Computer Programming/Basics of Programming, Machine Learning Techniques and Practices, Artificial Intelligence and its Applications, Operating Systems, Image and Video Processing, Deep Learning, Programming Language (C, Python and MATLAB). Interested to guide UG Project students.

PG Level




- Image and Video Processing, Computer Vision, Machine Learning, Deep learning, Artificial Intelligent, Machine Learning and Deep learning related Programming Practices with Python and MATLAB. Interested to guide PG (including PhD) Project/thesis students.

Invited Talks/Hands-on Session delivered

Jul 2019 – Jul 2021
Bangalore, India

13days Faculty Development Program on Artificial Intelligence and Machine Learning
My Role In the FDP: *Delivered hand-on session on "Prolog (day-1) and CLIPS (day-2 Programing for Expert system Design" and ANN/ Fuzzy (day-3) experiments with MATLAB.*
Testimonial: [link](#)  and [Pics](#) 



Technical Society Membership

Dec 2017 – present USA	IEEE Member 93886889 Testimonial: link 
Apr 2017 – present Kolkata, India	IE India Associate Member AM170751-8 Testimonial: link 
Jun 2019 – present USA	ACM Student Member 6016882 Testimonial: link 
Apr 2016 – present India	CSI Student Member 01357983

Achievements/Awards

Second Position in Poster Presentation

Secured Second Position in Poster Presentation in CSI Regional Student Convention held on 18th – 19th Feb, 2017 at School of Computer Engineering, KIIT University, Bhubaneswar, Odisha, India.

Testimonials: [link](#)  and [Pics](#) 

Institute Fellowship for PhD


IIIT Allahabad

Received Institute fellowship during PhD @IIIT-Allahabad

Reviewer Service:

Served as a Reviewer in the following Refereed Journals:










- IEEE Transactions on Artificial Intelligence (2)
- Computers in Biology and Medicine (1)
- Scientific Reports (2)
- Biomedical signal processing and control (8)
- Applied Soft Computing (1)
- Computer Methods and Programs in Biomedicine Update (1)
- IET Signal Processing (3)
- IETE Journal of Research (2)
- Electric Power Components and Systems (5)
- Computer and Information Science (3)
- Multimedia Tools and Applications (2)

- IEEE multimedia (1)
- Publons/web of science Profile: [link](#) 

Served as a Reviewer in the following Conferences :

- CVIP 2020, 2021
- ICABCS 2023
- IC2PCT 2024

Moderator of Events:

- **Moderator** of the talk by **Dr Manish Saggar** , *Assistant Professor, Stanford University, USA.*
Topic: "From Robotics to the Brain and Back: A Research Journey" in the event "The IIITA Alumni webinar Series #3 was held on 7th February 2021". **Testimonial:** Event link , Event Video 
- **Moderator** of the talk by **Dr Himanshu Verma** , *Assistant Professor of Human-AI Collaboration at the Knowledge and Intelligence Design Group of Faculty of Industrial Design Engineering at TU Delft (Netherlands).*
Topic: "Computing, Humans, and Spaces: From Lab Studies to Research In-the-Wild" in the event "The IIITA Alumni webinar Series #6 held on 04th Sept.'2021" **Testimonial:** Event link , YouTube link 
- **Moderator** of the talk by **Dr. Aashish Pappu** , *Senior Research Scientist and Research Lead, Spotify, New York, NY, USA (MS & PhD, CMU, USA).*
Topic: "Query Understanding and Intent Prediction for Music and Podcasts" in the event "The IIITA Alumni webinar Series #8 held on 20th Sept.'2021" **Testimonial:** Event link , YouTube link  .

Languages

- English
- Hindi
- Bengali

References

Prof. Anupam Agrawal, *Professor*,
Interactive Technologies & Multimedia Research (ITMR) Lab, Department of Information Technology, Indian Institute of Information Technology Allahabad, Prayagraj, 211015, India
anupam@iiita.ac.in

Prof. Pavan Chakraborty, *Professor*,
IIIT Allahabad, Department of Information Technology, Indian Institute of Information Technology Allahabad, Prayagraj, 211015, India
pavan@iiita.ac.in

Prof. Satish Kumar Singh, *Professor*,
IIIT Allahabad, Department of Information Technology, Indian Institute of Information Technology Allahabad, Prayagraj, 211015, India
sk.singh@iiita.ac.in

Dr. Vrijendra Singh, *Professor*,
Department of Information Technology, Indian Institute of Information Technology Allahabad, Prayagraj, 211015, India
vrij@iiita.ac.in

Prof. Ratna Sharma, *Professor*,
Stress and Cognitive Electroimaging Lab, Department of Physiology, All India Institute of Medical Sciences, New Delhi, Delhi 110029, India
ratnaaiims@gmail.com