Alik Pramanick

Roll No.:206101101
Ph.D. in Computer Science and Engineering
Indian Institute Of Technology, Guwahati

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Education

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
Ph.D. in CSE	Indian Institute of Technology, Guwahati	8.50	2021-Present
M.Tech. in CSE	Defence Institute of Advanced Technology, Pune	8.66	2018-2020
M.Sc. in CS	Pondicherry University	9.39	2016-2018
B.Sc. in CS	University of Calcutta	71.5%	2013-2016

Experiences

- **Teaching Assistant** at IIT Guwahati — *Jan'21 - Present*
- **Mentor** at PAL Program in IIT Guwahati for CS101 — *Feb'24 - Apr'24*
- **Teaching Assistant** at DIAT — *July'18 - Apr'20*
- **Intern** at Indian Institute of Remote Sensing, ISRO — *Dec'17 - Apr'18*

Publications

- **Turbit: Generating Turbid Underwater Images With Diffusion And Differential Transformers.** [ICIP'25]
- **Diffusion Based Shape-Aware Learning With Multi-Scale Context For Segmentation Of Tibiofemoral Knee Joint Tissues: An End-To-End Approach.** [ICIP'25]
- **Harnessing multi-resolution and multi-scale attention for underwater image restoration.** [The Visual Computer'25]
- **River-GEM: Generating and Enhancing Muddy Water Images,** [ICASSP'25]
- **Efficient-USR: Prompt Guided Dual-Domain Feature Information for Efficient Underwater Image Super-Resolution,** [ICASSP'25]
- **MedCAM-OsteoCls: Medical Context Aware Multimodal Classification of Knee Osteoarthritis.** [ICASSP'25]
- **ML-CrAIST: Multi-scale Low-High Frequency Information-Based Cross Attention with Image Super-Resolving Transformer.** [ICPR'25]
- **X-CAUNET: Cross-Color Channel Attention with Underwater Image-Enhancing Transformer,** [ICASSP'24]
- **Attention-Based Spatial-Frequency Information Network for Underwater Single Image Super-Resolution,** [ICASSP'24]
- **Two-stream mid-level fusion network for human activity detection,** [ICICC'20]
- **MobiSamadhaan—Intelligent Vision-Based Smart City Solution,** [ICICC'20]

Projects

- **Underwater vision using deep learning architectures** [Ph.D thesis] — *Jan'22 - Present*
- **Deep Learning based Human Activity Detection for Video Surveillance.** [M.Tech Project] — *Oct'19 - Apr'20*
- **Detection, identification and monitoring of vehicle in residential societies** [Course Project] — *Feb'20 - Apr'20*
- **An Application of 3D Modelling For Digital Documentation of Cultural Heritage.** [M.Sc. Project] — *Jan'18 - May'18*
- **An Application Of Multispectral Image Processing.** [B.Sc. Project] — *Jan'16 - May'16*

Technical Skills

- **Programming**: Python, C/C++
- **Machine Learning Framework**: PyTorch, Keras, Tensorflow

Research Interest

- **Computer Vision, Deep Learning, Machine Learning**

Achievements

- **Travel grant** to attend the 2025 IEEE International Conference on Acoustics, Speech and Signal Processing.
- **Winner** of Smart India Hackathon, 2019.
- **Selected** for Ph.D. admission (July, 2020) at IIT Kharagpur, IIT Guwahati, IIT Patna and IIT Jodhpur.
- **MHRD Scholarship** for M.Tech (2018-2020) and PhD (2021 - present).
- **Qualified NET** 2019 December examination with Lectureship.
- **Qualified GATE** 2018 and 2020.

Volunteering Activities

- Served as a reviewer in ICPR, ICASSP, IEEE TGRS, ACM TIST
- Served as a session chair in ICASSP 2025
- Technical Administrator of DGX Servers under Prof. Arijit Sur

Extra-curricular Activities

- Cooking, Traveling, Playing Cricket, Table Tennis, Football, Volleyball, Badminton