

Prasanjit Dey

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PROFILE

» Active programmer in Machine Learning, Deep Learning & Computer Vision

EDUCATION

- 📅 2022/09–Present Ph.D. in Computer Vision and Deep Learning in School of Computer Science
Technological University Dublin 📍 Dublin, Ireland
- 📅 2014/06–2016/09 M.Tech in Information Technology
MAKAUT, WB 📍 Kolkata, India
» CGPA: 8.27/10
- 📅 2009/04–2013/05 B.Tech in Computer Science and Engineering
WBUT 📍 Durgapur, India
» CGPA: 7.27/10

EXAM QUALIFY

» UGC NET for Assistant Professor in Computer Science and Application in July 2019

SCHOLARSHIP

» 4 years Ph.D. position full funding from SFI Centre for Research Training in Digitally-Enhanced Reality (CRT-DReal)

WORK

- 📅 2023/01–2023/06 Tutor/Senior Demonstrator
Technological University Dublin 📍 Dublin, Ireland
» Secure Programming at School of Informatics and Cybersecurity
- 📅 2020/12–2022/08 Junior Research Fellow
National Institute of Technology Jamshedpur 📍 Jamshedpur, India
» Time-series data monitoring & prediction using Deep Learning model and Computer Vision
» Air Quality pollutants prediction using Deep Learning model
» Time series prediction using Satellite data
- 📅 2018/12–2020/10 Project Assistant-III
Central institute of Mining & Fuel Research 📍 Dhanbad, India
» Vision enhancement for foggy weather software development using Deep Learning framework TensorFlow & OpenCv
» Digital Mine software development using Django, Python & Internet of Things (IoT)
» Mine hazards prediction using Deep Learning model
» Voice Communication System development using RaspberryPi, MATLAB & Simulink
- 📅 2017/02–2018/07 Assistant Professor
Ramgovind Institute of Technology 📍 Koderma, India
» Teaching Computer Network, Operating System, & Database Management

SKILLS

C	●●●●●●●●●●
Python	●●●●●●●●●●
Git	●●●●●●●●●●
SQL	●●●●●●●●●●
JAVA	●●●●●●●●●●
MATLAB & Simulink	●●●●●●●●●●
Deep Learning Framework (TensorFlow)	●●●●●●●●●●
AI/ML Libraries	●●●●●●●●●●
Latex	●●●●●●●●●●
Image Processing & OpenCV	●●●●●●●●●●
IoT	●●●●●●●●●●
RaspberryPi & Arduino	●●●●●●●●●●

PUBLICATIONS IN JOURNAL

- » **Prasanjit Dey**, Soumyabrata Dev, Bianca Schoen Phelan. "CombineDeepNet: A Deep Network for Multi-Step Prediction of Near-Surface PM2.5 Concentration" IEEE Journal of Selected Topics in Applied Earth Observations and Remote (2024) (I.F. 5.5) (SCIE)
- » **Prasanjit Dey**, Bibhash Pran Das, Yee Hui Lee, Soumyabrata Dev. "NeSNet: A Deep Network for Estimating Near-surface Pollutant Concentrations." IEEE Journal of Selected Topics in Applied Earth Observations and Remote (2023) (I.F. 5.5) (SCIE)
- » **Prasanjit Dey**, et al. "Deep convolutional neural network based secure wireless voice communication for underground mines." Journal of Ambient Intelligence and Humanized Computing (2021): 1-20. (I.F. 3.6). (SCIE).
- » **Prasanjit Dey**, S. K. Chaulya, and Sanjay Kumar. "Hybrid CNN-LSTM and IoT-based coal mine hazards monitoring and prediction system." Process Safety and Environmental Protection (2021). (I.F. 7.9). (SCIE).
- » **Prasanjit Dey**, Swades Kumar Chaulya, and Sanjay Kumar. "Secure decision tree twin support vector machine training and classification process for encrypted IoT data via blockchain platform." Concurrency and Computation: Practice and Experience (2021): e6264. (I.F. 1.8). (SCIE).
- » **Prasanjit Dey**, et al. "t-SNE and Variational Auto-Encoder with a bi-LSTM Neural Network-Based Model for Prediction of Gas Concentration in a Sealed-Off Area of Underground Coal Mines." Soft Computing. (I.F. 3.7). (SCIE).
- » K Kumari, **Prasanjit Dey** et al. "UMAP and LSTM based fire status and explosibility prediction for sealed-off area in underground coal mine." Process Safety and Environmental Protection 146 (2021): 837-852. (I.F. 7.9) (SCIE).
- » Sourav Hati, **Prasanjit Dey**, and Debashis De. "WLAN based energy efficient smart city design." Microsystem Technologies (2019): 1599-1612. (I.F. 2.0). (SCI).

PUBLICATIONS IN CONFERENCE

- » **Prasanjit Dey**, Soumyabrata Dev, Bianca Schoen Phelan. "BILSTM-BIGRU A FUSION DEEP NEURAL NETWORK FOR PREDICTING AIR POLLUTANT CONCENTRATION." IEEE GRSS 43rd International Geoscience and Remote Sensing Symposium (IGARSS), 2023

- » **Prasanjit Dey**, Soumyabrata Dev, Bianca Schoen Phelan. "NeSDeepNet: A Fusion Framework for Multi-step Forecasting of Near-surface Air Pollutants" Photonics & Electromagnetics Research Symposium (PIERS), 2023
- » Menatallah Abdel Azeem, **Prasanjit Dey**, Soumyabrata Dev. "A Multidimensionality Reduction Approach to Rainfall Prediction" Photonics & Electromagnetics Research Symposium (PIERS), 2023
- » Aditya Agarwal, **Prasanjit Dey**, and Sanjay Kumar. "Sentiment Analysis using Modified GRU." Proceedings of the 2022 Fourteenth International Conference on Contemporary Computing. 2022.

PUBLICATIONS IN PATENT

- » Inventors: **Prasanjit Dey**, Debashis De, Sourav HatiPatent, number: 465850, Application number: 201831030620, "Location Tracking System for Indoor Environment", Dated: 6-11-2023 (Granted)
- » Patent No: 0002NF2020, "Digital mine using Internet of Things", Dated: 07-01-2020

COPYRIGHT SOFTWARE

- » Application No: 007CR2020, DM-Digital Mine Software
- » Application No: 008CR2020, MEMP - Mine Environment Monitoring and Prediction Software
- » Application No: 015CR2020, Real time image processing method and software
- » Application No: 008CR2020, Method and software for real-time image stitching and object detection

AWARDS

- » CSIR-Central Institute of Mining and Fuel Research, Dhanbad, India, Dr. Adinath Lahiri awards for 2nd prize for the highest Impact Factor (IF) of papers published in SCI journal.

PROJECT

📅 2022–Current	Monitoring and forecasting of air pollutants using Deep Learning Technological University Dublin 📍 Dublin, Ireland
	<ul style="list-style-type: none"> » Forecasting of Atmospheric Air Pollutants Using Deep Neural and computer vision » Monitoring and identifying air pollutants using Satellite and image processing data » Development an early warning system for the hazardous gases in the open air
📅 2020–2022	Time-series data prediction using Deep Learning National Institute of Technology 📍 Jamshedpur, India
	<ul style="list-style-type: none"> » Time-series data prediction using Deep Learning » Time series data prediction using Satellite data and Computer Vision
📅 2018–2020	Vision Enhancement for Foggy Weather using Computer Vision CSIR-CIMFR 📍 Dhanbad, India
	<ul style="list-style-type: none"> » This project includes different modules » Real-Time Image stitching using OpenCV Library » Real-Time Vision Enhancement Image processing algorithm » Real-Time Object Detection using Deep Learning model
📅 2018–2020	Digital Mine Using Internet of Things (IoT) CSIR-CIMFR 📍 Dhanbad, India

- » This project includes Miners Module
- » Mine Gas Monitoring and Prediction using Deep Learning model
- » Miners Tracking IoT
- » Strata monitoring and prediction using Deep learning
- » Machine Health Monitoring and prediction using Deep Learning

CONFERENCE/SEMINAR

- » 3rd International Conference on Microelectronics, Circuits, and Systems on 9-10th July 2016
- » New Innovation in Cloud Computing for Big Data and Internet of Things Application on 29th July 2016
- » International colloquium on cyber governance, Threats and Security on 16th August 2016
- » Network Security on 29th February, 2016
- » Ethics in Academic Governance on 26-27th August, 2016
- » Advance Wireless Network: Challenges in Technology and Security on 9th May 2016

CERTIFICATION

- » NPTEL online certificate of Deep Learning on Jan-April (12 Week), 2020
- » Research Methodology on 21th July, 2018
- » Nature Inspired Algorithms and its Application on 08-12th February, 2016
- » Logic Design of Quantum Circuit and Memristor-Based Systems on 08-12th August 2016
- » Android Workshop on 20-24th May, 2016
- » Corporate Commutation: Beyond the Syllabi on 26-27th May, 2016

ACTIVITY ORGANIZED

- » Member of the Organizing Committee of a "2-day Workshop on Corporate Communication: Beyond the Syllabi"
- » Member of the Organizing Committee of "3rd. International Conference on Micro-electronics, Circuits and Systems, Micro2016"
- » Member of the Organizing Committee of "1st International Conference on Advanced Computing"

LANGUAGES

Bengali (native)

English (fluent)

REFERRER

Dr. Soumyabrata Dev  Assistant Professor
 University College Dublin, Ireland
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