

SURJO DEY

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EDUCATION

Rajiv Gandhi Institute of Petroleum Technology, Raebareli, India **2022 - Present**
B.Tech — Computer Science and Engineering

RESEARCH WORK

Extraction of Objects of Interest Using Satellite Images **Mar'24**

Collaborated with ISRO Respond Basket 2023 to automate information extraction from high- and medium-resolution satellite images, optimizing multi-source data analysis.

Automated Detection and Analysis of Minor Deformations in Flat Walls Due to Railway Vibrations Using LiDAR and Machine Learning **Jun'24**

Developed a methodology using TLS LiDAR and ML to detect deformations caused by railway vibrations, improving urban safety. [Paper Link](#)

Comprehensive Analysis of Structural Defects in Various Structures Using TLS Data and Machine Learning **Nov'24**

Utilized TLS data and machine learning algorithms to analyze structural defects in various structures, enhancing defect detection and assessment methods.

PROJECTS

ML-Based Movie Recommendation System **May'24**

Built a movie recommendation system using Python and scikit-learn, leveraging collaborative filtering and content-based techniques.

Image Processing and Object Identification Using Neural Networks **Nov'24**

Developed a CNN model for object detection, achieving high accuracy in identifying objects in complex images.

TECHNICAL SKILLS

Languages: Python, MATLAB, C

Frameworks: Pandas, NumPy, Scikit-learn, TensorFlow, Matplotlib

Tools: Excel, Word, PowerPoint, Google Earth Engine

Platforms: MATLAB, Google Colab, Jupyter Notebook, Visual Studio Code

Operating Systems: Windows, Linux (Ubuntu)

POSITIONS OF RESPONSIBILITY

IEEE Student Branch – Executive Member **Dec'22 - Present**

Science and Technology Council – Member **Jan'23 - Present**

Josephite Math Club – Corresponding Secretary **Jun'19 - Jun'21**

ACHIEVEMENTS

Presented a paper at the 2024 IEEE International Conference on Future Machine Learning and Data Science (FMLDS) at Sydney, Australia

Presented a paper at the 15th International IEEE Conference on Computing, Communication, and Networking Technologies (ICCCNT) at Mandi, India