



Krishna Prajapati

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M.S – Geotechnical Engineering
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Education

Degree/ Certificate	University/Board	Institute	Year	%/CGPA
M.S	IIT Madras	IIT Madras	2021-till date	---
B.Tech	MMMUT Gorakhpur	MMMUT	2019	8.40
Intermediate/+2	CBSE	Glenhill School	2014	86.00
Matriculation	CBSE	Glenhill School	2012	9.80

Project and Work Experiences

Artificial Neural Network Modelling for Estimation of Filter Dimensions of homogenous earthen dam

Guide: *Dr. Arindam Dey* | *Summer Internship* (Summer 2018)
Department of Civil Engineering, Indian Institute of Technology, Guwahati

- o Developed a three-layered 4-11-3 neural feed-forward back-propagation architecture using 6860 datasets obtained from GeoStudio SEEP/W simulations.
- o Geometrical properties of dam, the height of the reservoir level in the upstream were input and dimensions of toe filter and exit discharge were output to the ANN model.
- o The output has been expressed through simple mathematical expressions as an outcome of the neural model.
- o These expressions help practicing engineers in taking decision related to the preliminary design of toe filter for earthen embankments and dams.

Design and Analysis of Under-Reamed Pile Foundation

Guide: *Dr. Arindam Dey* | *Summer Internship* (Summer 2018)
Department of Civil Engineering, Indian Institute of Technology, Guwahati

- o Design of Under-reamed piles as the foundation for electric pole meant for the development of electrical carriageway for trains in the Jalpaiguri-Guwahati section.
- o Piles has been analysed further to estimate pile load capacity in resisting uplift.

Design and Analysis of G+2 R.C.C. Building Using STAAD Pro and IS 875 part (1, 2, 3)

Guide: *Dr. S. Mandal* | *Summer Internship* (Summer 2017)
Department of Civil Engineering, Indian Institute of Technology, (BHU) Varanasi

- o Used I.S. 875 (Part-1, 2, 3), I.S. 456:2000 to calculate various loads on building.

- o Submitted a detail project report, mentioning estimation of different loads and design of various structural elements of the building.

Design of Municipal Solid Waste Landfill for Gorakhpur city

Guide: *Dr. S. M. Ali Jawaid | Academic Project*

(Aug'2018-March'2019)

Department of Civil Engineering, Madan Mohan Malaviya University of Technology

- o Design of the sanitary landfill includes estimation of area, capacity and height of landfill requires for dumping waste for a design period of 20 years (2019 – 2038).
- o Design of leachate collection system (leachate estimation, dia of pipe, spacing, cross slope, longitudinal slope).
- o Design of landfill gas extraction system in which the modelling of landfill is done using LandGEM (USEPA) software to estimate gas emission rate on the basis of which dia and spacing of gas wells and no. of gas wells required are estimated out.
- o Surface water drainage system (estimation of stormwater runoff, design of trapezoidal drainage ditches and their spacing).

Technical Skills

Programming Languages: C/ C++, MATLAB

Software: STAAD Pro, AutoCAD, M.S. Office

Extra-Curricular Activities

- o Coordinator of Techsrijan-2016, MMMUT, Gorakhpur.
- o Participate in Robowar at Technex-2015 (IIT-BHU).
- o Two Year Volunteer of NSS (National Service Scheme).
- o Completed a 2-day project-based training program on *Construction Project Management* organised by Civil- Simplified.
- o Volunteered for Castel-Mania in MMMUT civil tech fest Avlamban-2016

References

Dr. Arindam Dey
Associate Professor
Department of Civil Engineering
Indian Institute of Technology,
Guwahati

Dr. S. M. Ali Jawaid
Professor
Department of Civil Engineering
Madan Mohan Malaviya University
of Technology, Gorakhpur