

Report on Mini Project

Application of Machine Learning & Software Development in Water Resource Management

Submitted By-

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CERTIFICATE

Certified that the Mini project report entitled “Application of Machine Learning & Software Development in Water Resource Management” submitted by Sumit Kumar, Pinki Kumari, Sidharth Kumar and Vishal Kumar of B. Tech 4th Semester, in partial fulfilment of the requirements of the award of degree of Bachelor of Technology in Civil Engineering, School of Studies in Engineering and Technology Guru Ghasidas Vishwavidyalaya, Bilaspur is accorded to the student’s own work, carried out by them in the Department of Civil Engineering during session 2023-24 under my supervision and guidance.

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ABSTRACT

This report investigates the transformative impact of integrating machine learning (ML) and software development in the realm of water quality management. Water quality is essential for public health, environmental sustainability, and adherence to regulatory standards. This project explores how machine learning algorithms can enhance water quality management by offering predictive analytics and automated decision-making capabilities.

Our project developed a Python-based software application that leverages ML principles to assess and predict water quality parameters, providing real-time evaluations and comprehensive insights into water suitability for various uses. By combining software development with ML, the project aims to address existing challenges in water quality monitoring and offer a scalable solution that enhances the efficiency and effectiveness of water management practices.