VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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PROJECT REPORT ON

"DEVELOPMENT OF HORTON'S INFILTRATION MODEL FOR MOODBIDRI TALUK"

Submitted in partial fulfilment of the requirements for the award of degree

BACHELOR OF ENGINEERING IN CIVIL ENGINEERING

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CERTIFICATE

Certified that the project work entitled "DEVELOPMENT OF HORTON'S INFILTRATION MODEL FOR MOODBIDRI TALUK" is a bonafide work carried out by

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Are bonafide students of Department of Civil Engineering of Alva's Institute of Engineering and Technology in partial fulfillment for the award of BACHELOR OF ENGINEERING in CIVIL ENGINEERING of the VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI during the year 2022-2023. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

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ABSTRACT

Horton's cycle is a model used to understand the movement of water in a drainage basin. It was first introduced by Robert E. Horton in 1933, and has since been refined and expanded upon by other researchers.

The cycle begins with precipitation, which falls onto the land surface and either infiltrates into the soil or runs off into streams and rivers. The water that infiltrates into the soil is either taken up by plants, evaporated back into the atmosphere, or becomes part of the groundwater system.

The water that runs off into streams and rivers eventually reaches the ocean, but before it does, it may be temporarily stored in lakes, reservoirs, or wetlands. This process of water moving from the land surface to the atmosphere, back to the land surface, and eventually to the ocean is known as the water cycle.

Horton's cycle model also takes into account the role of vegetation in the movement of water. Vegetation plays a key role in the interception and evapotranspiration of precipitation, which can affect the amount of water that reaches the ground surface and ultimately the amount of water that enters streams and rivers.