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**A SOFTWARE PROGRAM FOR EXTREME FLOW PREDICTIONS
- CASE STUDY OF FLOW AT CALEDONIYA**

A PROJECT REPORT PRESENTED BY

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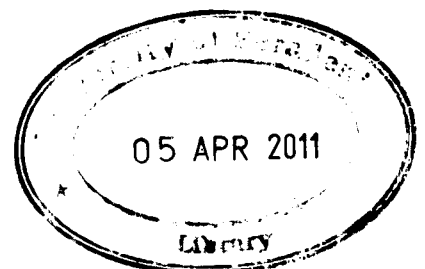
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This study describes a user-friendly computer program named, HYDRO - A SOFTWARE PROGRAM FOR EXTREME FLOW PREDICTIONS developed in JAVA for analysis of daily hydrological data combining some application of statistical software named EASY FIT[1] to estimate of one day maximum values of different recurrent intervals. An appropriate extreme value distribution to annual flood flow data is identified and fitted using the computer program HYDRO developed in Java Development Kit 1.6.

The analysis of stream flow data is discussed and frequency analysis of the maximum daily data of Caledoniya in Upper Kotmale basin is done utilizing Gumbel Max, Pearson Type III, Log Perason Type III, Lognormal & Normal Distributions. The study revealed that the Normal and Pearson Type III distributions fit the data very well. The expected flood levels can be predicted from the fitted distribution.