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A MATHEMATICAL MODEL STUDY TO

FORECAST INFLOW TO

SENANAYAKE SAMUDRA

By

MISS. P.P.G. DIAS B.Sc.(Eng.), C. Eng., M.I.E. (Sri Lanka)



University of Moratuwa, Sri Lanka.
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A Dissertation submitted in partial fulfilment of the Requirements
for the Degree of Master of Engineering.

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Department of Civil Engineering,
Faculty of Engineering,
University of Moratuwa.

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This Dissertation has not been previously presented in whole or part, to any University or Institution for a higher degree.

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ABSTRACT

The Objective of this Study is to develop a Mathematical Model to Forecast Inflows to Senanayake Samudra, given the rainfall in its Catchment. This forecast can effectively be used in establishing the reservoir operating criteria. The Model is a self cleansing one, which will modify its basic parameters as new data are fed in.

The Water Balance Equation is used to develop the Model.

Original plan was to collect the rainfall data for the past thirty years of all the rainfall stations within and adjoining the catchment and characteristics of the basin. However the useful rainfall data were available only for the past five years.

Hence the Monthly Model and the Weekly Model were developed with the available data.



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