

FINAL YEAR PROJECT REPORT  
DIPLOMA IN ELECTRONIC ENGINEERING  
SCHOOL OF ENGINEERING  
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SCOPE STORE'

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## PREFACE

This report, based upon the project 'Scope Store' was prepared and submitted in partial fulfilment of the final year course for the award of Diploma in Electronic Engineering, MARA Institute of Technology.

With recent advent of electronics components, 'Scope Store' is constructed an add-on storage unit for an ordinary oscilloscope, without any modification, as a waveform recorder. This unit has same technique for storing and replaying data as the analogue storage scope, but the difference is that it stores input waveform in digital form prior to recording of the input signal by itself and has advantage in the sense that problem arises in analogue storage scope to display low frequency pulse trains, non-repetitive or repetitive but infrequent event. With the 'Scope Store' an ordinary oscilloscope can display the waveform recorded by it at stationary, for visual due to the presence of internal trigger circuit.

The purpose of this project and report is to expose student to the field study of electronics components and other linear and digital components used in the construction of this simple, cheap but useful device.

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## NOMENCLATURE

A	AMPERE
ac	ALTERNATING CURRENT
dc	DIRECT CURRENT
F	FARAD
f	FREQUENCY
Hz	HERTZ, CYCLE PER SECOND
I	CURRENT
K	KILO ( $10^3$ )
m	MILLI ( $10^{-3}$ )
M	MEGA ( $10^6$ )
u	MICRO ( $10^{-6}$ )
V	VOLT
s(sec.)	SECOND
$\Omega$	OHM
RAM	RANDOM ACCESS MEMORY
i/p	INPUT
o/p	OUTPUT
IC	INTERGRATED CIRCUIT
C	CAPACITOR
Fig.	FIGURE
S	SWITCH
TRIG.	TRIGGER
EXT.	EXTERNAL
INT.	INTERNAL
PCB	PRINTED CIRCUIT BOARD
OP-AMP	OPERATIONAL AMPLIFIER