

## FLUID MECHANICS-II LAB(ME-223L)

Pre-requisite: None

Credit Hours: 01

Contact Hours: 48

### RECOMMENDED BOOK(S)

Fluid Mechanics Lab Manual

### COURSE OBJECTIVES

To demonstrate and develop understanding among the students about working principles of Fluid Mechanics with hands-on experience and to improve the psychomotor skills

S. No.	CLO/PLOS MAPPING	DOMAIN	PLO
1	<b>Conduct</b> experiments to measure and sketch relevant graphs of key variables of interest (such as flow measurement, discharge coefficient, coefficient of velocity and coefficient of contraction, coefficient of drag & lift, boundary layer etc.).	P4	04
2	<b>Respond</b> for answering the questions related to experiments.	A2	09

### COURSE CONTENTS

Flow measurement by Rota-meter.

Flow measurement in venturi-meter

Flow measurement in orifice meter

Stability of floating body.

Demonstration of laminar and turbulent flow

Co-efficient of (discharge  $C_d$ , velocity  $C_v$  and contraction  $C_c$ ) of different mouth pieces

Impact of jet

Variable speed centrifugal pump

Reciprocating pump

Pelton wheel

Francis turbine

Kaplan turbine

Co-efficient of drag and of lift produced by aero-foil & different sample bodies.

Boundary layer on a smooth, roughened and highly roughened plate.