

MVSR Engineering College, Nadergul.
Department of Mechanical Engineering
COURSE OUTCOMES

Class: B.E.III Year I Sem (Mech. Engg.)

Name of the Course: **HYDRAULIC MACHINERY AND SYSTEMS**

Course Code: ME 304

At the end of the course student is able to

No.	Course Outcome	Pos Mapped
ME304.1	Apply angular momentum or moment of momentum equation over both stationary and moving/rotating blade rows, a first step to develop power absorbing/producing turbo-machinery.	PO1, PO2,PO3,PO4
ME304.2	Comprehend working principles of positive displacement pumps, with specific insight into reciprocating pumps and flow stabilizing equipment. Describe why moment of momentum principle is not applicable to positive displacement machines.	PO1, PO2,PO3, PO4, PO11, PO12, PSO-01
ME304.3	Investigate the impeller internal flow physics, apply principle of angular momentum, velocity triangles on performance study. Observe cavitation phenomena in Centrifugal pumps.	PO1,P O2, PO3, PO4,PSO-01
ME304.4	Capable of analyzing fluid flow phenomena in hydro-turbine runners, velocity triangles, study of performance during rated and off-design conditions of operation. Recognize importance of turbine components like draft tube in the system.	PO1, PO2,PO3, PO4, PO11, PO12, PSO-01
ME304.5	Capable of applying geometrical similarity relations in development of prototype machines in both pumps and hydro-turbines in heavy engineering industry.	PO1, PO2,PO3, PO4, PO11, PO12, PSO-01
ME304.6	Demonstrate basic principles of oil-hydraulics and functions of allied components. Apply and develop hydraulic circuits for the operation and control of industrial equipment, to suit operational requirements of system.	PO1, PO2,PO3, PO4, PO11, PO12, PSO-01