St.Joseph's College of Engineering, Chennai 600 119
Department of Mechanical Engineering
Fluid Mechanics Laboratory Equipment Details

S.No	Name of the equipment	Description of the equipment	Quantity
1	Gear pump Setup	To evaluate the characteristics of Gear pump. Consisting of Gear pump, Supply tank and Measuring tank, Energy meter, Pressure gauge, Vacuum gauge and controlling valves.	01
2	Kaplan turbine Setup	This equipment is designed for giving the visual demonstration of working of kaplan turbine.Also to study performance characteristics. Consisting of Centrifugal pump [20hp], Supply tank, Venturimeter, Pressure tappings, Manometer setup, Pressure gauge, Vacuum gauge, Tachometer and controlling valves.	01
3	Reciprocating pump Setup	To evaluate the characteristics of Double acting reciprocating pump. Consisting of reciprocating pump, Supply tank, Energy meter, Pressure gauge, Vacuum gauge and controlling valves.	01
4	Pelton wheel Setup	This equipment is designed for giving the visual demonstration of working of a pelton turbine. Also to study performance characteristics, effect of discharge, velocity of impinging water on turbine, of a pelton wheel turbine.Consisting of Centrifugal pump[15hp], Supply tank, Venturimeter, Pressure tappings, Manometer setup, Pressure gauge, Vacuum gauge , Tachometer and controlling valves.	01

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5	Francis turbine Setup	This equipment is designed for giving the visual demonstration of working of a francis turbine.Also to study performance characteristics. Consisting of Centrifugal pump [15hp], Supply tank, Venturimeter, Pressure tappings, Manometer setup, Pressure gauge, Vacuum gauge, Tachometer and controlling valves.	01
6	Submergible pump Setup	To evaluate the characteristics of Submergible pump. Consisting of Submergible pump, Supply tank, Energy meter, Pressure gauge and controlling valves.	01
7	Rotameter Setup	To calibrate Rota meter at different flow rate and to draw Discharge graph & Error graph. Consisting of Rotameter, Water storage tank, Sump tank and Controlling Valves	01
8	Pipe Flow analysis Setup	Comparing friction factor for different types of pipes at pressure tapings of 3m apart. Consisting of Centrifugal pump, Manometer Setup, Sump tank, Delivery tank, Pressure tappings and Controlling valves.	01
9	Centrifugal pump Setup	To evaluate the characteristics of centrifugal pump and study the build-up of stage pressures. Consisting of Centrifugal pump, Sump tank, Energy meter, Pressure gauge, Vacuum gauge and controlling valves.	01
10	Orifice meter Setup	To determine the Co-efficient of discharge for Orificemeter at different flow rates. Consisting of Centrifugal pump, Orificemeter, Manometer Setup, Sump	01

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		tank and Delivery tank, Pressure Tappings and Controlling Valves	
11	Venturimeter Setup	To determine the Co-efficient of discharge for Venturimeter at different flow rates. Consisting of Centrifugal pump, Venturimeter, Manometer Setup, Sump tank and Delivery tank, Pressure Tappings and Controlling Valves	01