ANNAMACHARYA UNIVERSITY
CIVIL ENGINEERING DEPARTMENT

Name of the Lab: Fluid Mechanics Lab

Name of the Lab in-charge: Dr. D. Gouse Peera

S.No.	Equipment Photo	Name of the Equipment	Specifications	Price
1.		Bernoulli's Apparatus	Pump Capacity: 1/2 HP, 1 Ph. Collecting Tank Area: 0.041 m^2. Overhead tank connected to Venturimeter with connections to Piezometer tubes at different sections.	52,304/-
2.		Major Losses	Pump Capacity : 1/2 HP, 1 Ph. Area of Measuring Tank, "A"= 0.075 m^2 Length of pipe, "L"= 1.4 m. Kinematic viscosity, "υ"= 1.00 x 10^{-6} m^2/s Diameter of pipe, "d'' = 27, 21 and 15 mm, (G.I)	54,172/-

3.		Minor Losses	Pump Capacity : 1/2 HP, 1 Ph. Collecting Tank Area : $0.075m^2$. Nominal Dia of Pipe : 1” NB (27mm ID). Diameter of 1/2" pipe : 15 mm	70,000/-
4.		Orifice and Mouth Piece	Pump Capacity: 1/2 HP, 1 Ph. Area of collecting tank = 0. 065 m^2 Dia of Orifice: 7,9, and 11 mm Types of mouth piece: Cylindrical, Convergent, and Divergent	61,731/-

5.		Reynolds Number	Pump Capacity: 1/2 HP, 1 Ph. Diameter of glass tube = 0.03 m ID of the glass tube 'D' = 0.02 m Area of collecting tank 'a' = 0.041m^2	50,436/-
6.		Hydraulic Flume	Pump capacity = 3 HP Length of flow channel, L= 6000 mm Height of the channel, H = 250mm Width of the channel, W = 150 mm Tank material = Stainless Steel Sump Tank capacity = 350 liters Discharge Measurement = using venturi meter Venturi meter Inlet area = 0.00159 m^2 (D_i=45 mm) Venturi meter Throat area = 0.000398 m^2 (D_t=22.5 mm) Head Measurement in Venturi meter = using Manometer Head Measurement in flow channel = using point gauge Flow control = using ball valve	4,32,585/-

7.		Venturi Meter and Orifice Meter	Pump Capacity: 1/2 HP, 1 Ph. Area of Measuring tank, 'A' = 0.075 m^2 Diameter of the Venturi meter (throat), 'd' = 13 mm Diameter of the Venturi meter (Inlet), 'D' = 25 mm	63,513/-