

UG	Department: Chemical Engineering
Course Code: CHP213	Course Name: Momentum Transfer Operations lab
Credit: 2	L-T-P: 0-0-3
Version: 1	Approved on:
Prerequisite Course: Nil	
At least Eight Experiments need to be done from the following :	
<ol style="list-style-type: none"> 1. Flow through circular/non circular pipe. <ol style="list-style-type: none"> a) To measure the pressure drop and frictional losses in pipe flow through different pipes. 2. Pressure drop through packed bed <ol style="list-style-type: none"> a) To calculate the Pressure drop of fluid through packed bed column. b) To verify the Ergun Equation. 3. Pressure drop through various pipes and fitting, sudden enlargement & contraction <ol style="list-style-type: none"> a) To determine the loss of head in the different fitting at the various water flow rates. b) To determine the loss co- efficient for the pipe fittings. 4. Reynold's Experiment <ol style="list-style-type: none"> a) To find out the flow in the pipe is laminar, transition or turbulent flow by calculating the Reynolds's number of the flow. 5. Flow rate calibration of rotameter. <ol style="list-style-type: none"> a) To compare the experimental and theoretical flow rate of the rotameter. 6. Coefficient of orifice meter by computing pressure drop for various flow rates. <ol style="list-style-type: none"> a) To find the co-efficient of orifice meter by finding the pressure difference at a given flow rate. 7. Losses due to pipe friction <ol style="list-style-type: none"> a) To determine the losses due to friction in pipes. b) To determine the friction factor for darcy-weisbach equation. 8. Venturimeter, Orifice meter test <ol style="list-style-type: none"> a) To measure discharge through venturimeter, orifice meter and rota meter. b) To determine the co-efficient of discharge through venturimeter and orifice meter. 9. Bernouli's Experiment <ol style="list-style-type: none"> a) To verify Bernouli's equation experimentally. b) To plot the total energy line vs. distance. 	