**17CE22P2 - FLUID MECHANICS & HYDRAULIC MACHINERY LABORATORY**

**(Civil Engineering)**

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| **Course Category** | Professional Core | **Credits** | 2 |
| **Course Type** | Theory | **Lecture - Tutorial - Practical** | 0-0-3 |
| **Prerequisite** | Fluid Mechanics | **Sessional Evaluation** | 40 |
| **Semester End Exam. Evaluation** | 60 |
| **Total Marks** | 100 |

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| **Course Objective(s)** | To understand and apply the principles of fluid mechanics for analyzing the fluid flow and performance of hydraulic machines. | |
| **Course Outcomes** | CO1 | Calibration of orifice and mouthpiece. |
| CO2 | Determination of efficiency of notches, venturimeter and orifice meter. |
| CO3 | Evaluate the major and minor losses in pipe network. |
| CO4 | Evaluate the performance characteristics of pump. |
| CO5 | Evaluate the performance characteristics of turbine. |
| CO6 | Evaluate the Chezy’s and Manning’s coefficient in open channel flow. |
| **Course Content** | **LIST OF EXPERIMENTS**  **I. EXPERIMENTS ON CALIBRATION OF**   1. Orifice 2. Mouth piece 3. Notch 4. Venturimeter 5. Orifice meter 6. Bend meter 7. Friction loss through a pipe 8. Gate valve 9. Bend loss 10. Sudden contraction 11. Sudden Expansion   **II. EXPERIMENTS ON PERFORMANCE CHARACTERISTICS OF**   1. Turbines 2. Pumps | |