

|| Jai Sri Gurudev||
 Sri Adichunchanagiri Shikshana Trust (R)
ADICHUNCHANAGIRI UNIVERSITY
 BGS Institute of Technology
Course Title: Fluid Mechanics and Hydraulic Machines Laboratory
B. E. CIVIL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)

18CVL43	Course Code	FLUID MECHANICS AND HYDRAULIC MACHINES LABORATORY (18CVL48)	Course Title	IV	Semester
	Credits	0 – 0 – 0 – 0	L – T – P – TL*	40 Hours	Teaching Period
100 Marks	Total	60 Marks	SEE*	40 Marks	CIE*
*NOTE: L – Lecture; T – Tutorial; P – Practical; TL – Total; CIE – Continuous Internal Evaluation; SEE – Semester End Examination					

Course Learning Objectives: 1. calibrate flow measuring devices 2. determine the force exerted by jet of water on vanes 3. measure discharge and head losses in pipes 4. understand the fluid flow pattern	Number of Lecture Hours/Week
Experiments: 1.Determination of C_d for Venturimeter 2.Determination of C_d for horizontal Orifice meter 3. Calibration of Rectangular Notch 4. Calibration of Triangular Notch 5. Experimental determination of force exerted by a jet on flat 6. Experimental determination of force exerted by a jet on curved plates (Hemispherical Vane). 7. Experimental determination of operating characteristics of Pelton turbine 8. Determination of efficiency of centrifugal pump.	03 = (1 Hour Instruction + 2 Hours Laboratory)

<p>9. Determination of Major losses</p> <p>10. Determination of Minor losses</p>	
<p>Course outcomes: During the course of study students will develop understanding:</p> <ul style="list-style-type: none"> • Properties of fluids and the use of various instruments for fluid flow measurement. • Working of hydraulic machines under various conditions of working and their characteristics. 	
<p>Question paper pattern:</p> <ol style="list-style-type: none"> 1. All experiments are to be included in the examination except demonstration exercises. 2. Candidate to perform experiment assigned to him 3. Marks are to be allotted as per the split up of marks shown on the cover page of answer script 	
<p>Textbooks: 1. Sarbjit Singh , <i>Experiments in Fluid Mechanics</i> - PHI Pvt. Ltd.- New Delhi</p> <p>2. Mohd. Kaleem Khan, “Fluid Mechanics and Machinery”, Oxford University Press</p> <p>Reference Books: Hydraulics and Fluid Mechanics’ – Dr. P.N. Modi & Dr S.M. Seth, Standard Book House- New Delhi. 2009 Edition.</p>	