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ADICHUNCHANAGIRI UNIVERSITY
BGS Institute of Technology

B. E. CIVIL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)

18CVL67	Course Code	SOFTWARE APPLICATION LAB	Course Title	VI	Semester
2	Credits	1 – 0 – 2 – 3	L – T – P – TL*	42 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					

<p>Course objectives: This course will enable students to</p> <ol style="list-style-type: none"> 1. Use industry standard software in a professional set up. 2. Understand the elements of finite element modelling, specification of loads and boundary condition, performing analysis and interpretation of results for final design 3. Develop customized automation tools 	Number of Lecture Hours / Week
<p>Module-1 Use of civil engineering softwares: ETABS / STAD PRO Use of softwares for:</p> <ol style="list-style-type: none"> 1. Analysis of plane trusses, continuous beams, portal frames 2. 3D analysis of multistoried frame structures 	03=(1 Hour Instruction + 2 Hours Laboratory)
<p>Module-2 1. Project Management- Exercise on Project planning and scheduling of a building project using any project management software:</p> <ol style="list-style-type: none"> a. Understanding basic features of Project management software b. Constructing Project: create WBS, Activities, and tasks and Computation Time using Excel spread sheet and transferring the same to Project management software. c. Identification of Predecessor and Successor activities with constrain d. Constructing Network diagram (AON Diagram) and analyzing for Critical path, Critical activities and Other non Critical paths, Project duration, Floats. e. Study on various View options available f. Basic understanding about Resource Creation and allocation g. Understanding about Splitting the activity, Linking multiple activity, assigning Constrains, Merging Multiple projects, Creating Baseline Project. 	
<p>Question paper pattern:</p> <ul style="list-style-type: none"> • Two questions shall be asked from each Module. 	

- One full question should be answered from each Module.
- Each question carries 50 marks.

Reference Books: Training manuals and User manuals and Relevant course reference books.

Course outcomes: After studying this course, students will be able to: use software skills in a professional set up to automate the work and thereby reduce cycle time for completion of the work.