



# CITY ENGINEERING COLLEGE

Approved by AICTE New Delhi & Affiliated by VTU, Belagavi  
Doddakallasandra, Off Kanakapura Main Road,  
Next to Gokulam Apartment, Bangalore - 560 062.



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## CRITERION 1 – CURRICULAR ASPECTS

**KEY INDICATOR:** 1.2 Academic Flexibility.

**Metric Number: 1.2.1** Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. Where the students of the institution have enrolled and successfully completed during the year 2019-20

**Institutional programme brochure/notice for Certificate/Value added programs with course modules and outcomes**

| Sl. No. | Name of VAC/Certificate Course, MOOCs, SWAYAM, NPTEL |
|---------|--|
| 1.      | Advance pipe stress analysis                         |
| 2       | Course on Plumbing                                   |
| 3       | Engineer your career                                 |



## **CITY ENGINEERING COLLEGE**

(Approved by AICTE New Delhi & Affiliated by VTU,  
Belagavi)

Near Metro Station, Doddakallasandra  
Bangalore – 560 062.

### **Value Added Course on Advance Pipe Stress Analysis**

Date: 07-10-19 to 11-10-19

Venue : Seminar Hall

#### **Organized by**

Department of Mechanical Engineering  
City Engineering College  
Bangalore-560062

[www.cityengineeringcollege.ac.in](http://www.cityengineeringcollege.ac.in)

### **Advisory Committee**

#### **Chief Patron**

#### **Dr. K R Paramahamsa**

MBA, L.L.B., Ph.d. (USA), D. Litt,  
Honorable Chairman  
AMC – City Group of Institutions.

#### **Patrons**

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Honorable Vice Chairperson,  
AMC – City Group of Institutions.

#### **Ms. Monica Kalluri**

Honorable Vice – President  
AMC – City Group of Institutions.

#### **Mr. Rahul Kalluri**

Honorable Executive – President  
AMC – City Group of Institutions.

#### **Dr. V.S. Ramamurthy**

Principal, City Engineering college

#### **Dr. Jyothi. P**

Vice Principal, HOD,  
Dept of Mathematics, CEC.

### **About College**

City Engineering College, Bangalore affiliated to Visvesvaraya Technological University (VTU) is centrally located in Bangalore. The College has expanded over the last 19 years with sophisticated infrastructure as a part of the Institution's commitment to provide higher quality education in the area of Engineering. The highly facilitated landmark building – provides a perfect ambience for creativity and learning. City Engineering College is known for its academic excellence, friendly welcoming atmosphere and community spirit. Over large number of full time students study here in a wide range of programs. It is a center of talented, experienced teachers who inspire and energize the students to achieve the best.

| About the Department of Mechanical Engineering  | Expert Speakers for the Program   | About Advance Pipe Stress Analysis  |
|---|---|---|
| <p>The Department of Mechanical Engineering was established in 2005 with an annual intake of 120 students in the undergraduate Programme. The Department of Mechanical Engineering has state-of-the-art laboratories; these laboratories not only satisfy the curriculum requirements of the students very lucidly but also provide additional facilities to enhance the practical knowledge. The department consists of a team of well qualified teaching staff having Master degrees and Doctorates. The staff members of the Mechanical Department have taken up projects funded by external agencies like KSCST, VGST and VTU. The department received a grant of Rs. 5 Lakh in the year 2019 from VGST to carry out research on Advanced Materials in Green Energy. The Department also has a Research center approved by VTU.</p> | <p><b>Shri Chetan K</b><br/>Construction Industry Development Academy, Bangalore</p> <p><b>Convener</b><br/><b>Dr. S. Karunakara</b><br/>Professor and Head,<br/>Department of Mechanical Engineering.</p> <p><b>Coordinator</b><br/><b>Mr. Veeresh Naik</b><br/>Assistant Professor,<br/>Department of Mechanical Engineering.</p> | <p>Advanced pipe stress analysis is a testing method that uses specialized software and techniques to evaluate the structural integrity and performance of piping systems under various operating conditions. It can help engineers understand how piping systems respond to different loads, such as pressure, temperature, weight, and fluid. This information can help engineers assess the flexibility and stiffness of pipes, and identify potential risks of fatigue and failure. Advanced pipe stress analysis can also help engineers provide design recommendations and documentation.</p> |



## Department of Mechanical Engineering Course on Advance Pipe Stress Analysis

### Course Content

**Module-1** Basic Stress Concept Role of Stress Engineer, Basic Stress Strain Theories

**Module-2** Basic Engineering concepts required for stress analysis Theories of failure Concept of stress Range Theory of load case generation

**Module-3** Different types & functions of Pipe support Design system for Sustain, Expansion & Occasional Loading Support Span Calculations Preparing stress Critical line list

**Module-4** WRC-107 analysis WRC-297 nozzle flexibility PSV force calculation/ Slug force Stress System formation Storage Tank-pump system modelling Column-heat exchanger model Rupture disk calculation Overview of Critical Systems viz. : Turbine; Pump; Column, Air Fine Cooler etc

**Module-5** Spring design & Modelling in Caesar II Bellow Design & Modelling in Caesar II Overview of API 610 Equipment Modelling Pipe Rack Caesar II Model Flange Leakage Stress Intensification Factor

**Course Coordinator**

Mr. Veeresh Naik  
Assistant Professor  
Department of Mechanical Engineering

**HOD**

Dr.S.Karunakara  
HOD  
Department of Mechanical Engineering



**Department of Mechanical Engineering**  
**Course on Advance Pipe Stress Analysis**

**Course Objectives**

After completion of the course, the trainees should be able to:

1. Get familiarising with the tools and equipment.
2. Gain knowledge about tools, equipment & material used in piping work.
3. Gain knowledge about different types of pipes and fittings.
4. Acquire knowledge about skills how to install various types of WCs with flushing cistern, wash basin, sink etc. & their connection with water supply line.

**Course Outcomes**

The students will be able to:

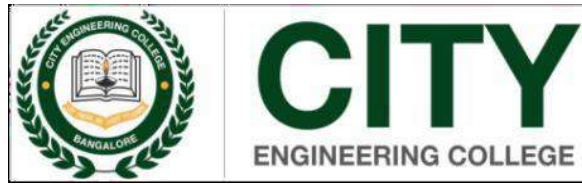
1. Use of various plumbing tools and equipment while doing plumbing work.
2. Install and repair water supply/waste water drainage line and sanitary fittings and fixtures.
3. Various safety rules related to plumbing work.
4. Timely rectification of the problem/issue.
5. Negotiation skills.

**Course Coordinator**

Mr. Veeresh Naik  
Assistant Professor  
Department of Mechanical Engineering

**HOD**

Dr.S.Karunakara  
HOD  
Department of Mechanical Engineering



Doddakallasandra, Bangalore-560061

## Department of Civil Engineering

### Course on Plumbing

#### Brochure

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|    <p><b>CITY ENGINEERING COLLEGE</b><br/>(Approved by AICTE New Delhi &amp; Affiliated by VTU, Belagavi)<br/>Near Metro Station, Doddakallasandra<br/>Bangalore – 560 062.</p> <p><b>Value Added Course on Plumbing</b></p> <p>Date: 07-10-19 to 11-10-19<br/>Venue : Seminar Hall</p> <p><b>Organized by</b><br/>Department of Civil Engineering<br/>City Engineering College<br/>Bangalore-560062</p> <p> <a href="http://www.cityengineeringcollege.ac.in">www.cityengineeringcollege.ac.in</a></p> | <p><b>Advisory Committee</b></p> <p><u>Chief Patron</u></p>  <p><b>Dr. K R Paramahansa</b><br/>MBA, L.L.B., Ph.D. (USA), D.Litt.<br/>Honorable Chairman<br/>AMC – City Group of Institutions.</p> <p><u>Patrons</u></p> <p><b>Smt. Geetha Paramahansa</b><br/>Honorable Vice Chairperson,<br/>AMC – City Group of Institutions</p> <p><b>Ms. Monica Kalluri</b><br/>Honorable Vice – President<br/>AMC – City Group of Institutions.</p> <p><b>Mr. Rahul Kalluri</b><br/>Honorable Executive – President<br/>AMC – City Group of Institutions</p> <p><b>Dr. V.S. Ramamurthy</b><br/>Principal, City Engineering college, Bangalore.</p> <p><b>Dr. Jyothi. P</b><br/>Vice Principal, HOD, Dept. of Mathematics, CEC</p> <p><u>Convenor</u></p> <p><b>Dr. Thippeswamy H N</b><br/>Professor and Head, Civil Engineering Department, CEC</p> <p><u>Coordinator</u></p> <p><b>Mr. Vinay Kumar S N</b><br/>Assistant Professor Dept. of Civil Engineering, CEC</p> | <p><b>About College</b></p> <p>City Engineering College, Bangalore affiliated to Visvesvaraya Technological University (VTU) is centrally located in Bangalore. The College has expanded over the last 19 years with sophisticated infrastructure as a part of the Institution's commitment to provide higher quality education in the area of Engineering. The highly facilitated landmark building – provides a perfect ambience for creativity and learning. City Engineering College is known for its academic excellence, friendly welcoming atmosphere and community spirit. Over large number of full time students study here in a wide range of programs. It is a center of talented, experienced teachers who inspire and energize the students to achieve the best.</p> |
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| <p><b>About the Civil Engineering Department</b></p> <p>The Department of Civil Engineering was started in the year 2011 with an intake of 60 and further increased to 120 in the year 2014 to impart Quality Technical Education to the aspirants of Civil Engineering. The Department has well stocked library, state of the art Class rooms and Laboratories. The Department has formed Club – RACE - Royal Association of Civil Engineers. The aim of the club is to bridge the gap between Academics and the Industry. RACE in association with the Experts in the Field/ Industry has arranged several programs, workshops, Industrial Visits for the benefit of faculty and the students and to keep them abreast with the latest knowledge and industry challenges.</p> | <p><b>Expert Speakers for the Program</b></p> <p><b>Shri K.L. Mohan Rao</b><br/><b>Chairman,</b><br/><b>Skill Development Builders</b><br/><b>Association of India.</b><br/><b>President,</b><br/><b>Construction Industry</b><br/><b>Development Academy,</b><br/><b>Bangalore</b></p> | <p><b>About Plumbing</b></p> <p>A Plumbing value-added course is designed to help the student to have an understanding of how Plumbing Engineer supports the Civil Engineer for the plumbing systems outside the building including storm water, sewer, natural gas, fire suppression water, domestic water, irrigation water, and other special water and waste systems.</p> <p>This course aims to get familiarising with the tools and equipment, gain knowledge about tools, equipment &amp; material used in plumbing work, gain knowledge about different types of pipes and fittings, acquire knowledge about skills how to install various types of WCs with flushing cistern, wash basin, sink etc. &amp; their connection with water supply line.</p> |
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## Department of Civil Engineering

### Course on Plumbing

#### Course Content

**Module 1:** Introduction to Plumbing, Role of Plumber & its activities, various Plumbing fixtures & layout systems & Basics symbol of Plumbing Drawing.

**Module 2:** Classification of material required for internal and external plumbing work, Measurement of length, angle, internal and external diameter of a pipe section and fittings & Demonstration of using plumb bob and spirit level.

**Module 3:** Introduction to tools used in Plumbing, Use of different types of plumbing tools & safety equipment for any fitting & Safety measures while using tools.

**Module 4:** Introduction to different type of pipes and their use, Handling and fitting of pipes of all types & Types of pipe joints and its importance.

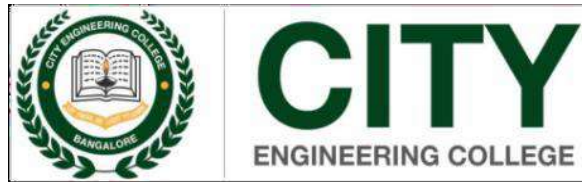
**Module 5:** Visit to Plumbing Industry.

Mr. Vinay Kumar S N  
Course Coordinator  
Assistant Professor  
Department of Civil Engineering

Dr. Thippeswamy H N  
HOD  
Department of Civil Engineering

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## Department of Civil Engineering

### Course on Plumbing

#### Course Objectives

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**CITY ENGINEERING COLLEGE**

# **Engineer Your Career**

VALUE ADDED COURSE

ORGANIZED BY

**DEPARTMENT OF COMPUTER  
SCIENCE AND ENGINEERING**

**16TH TO 20TH SEPTEMBER 2019**

**A SAMUEL JOHN  
SOFTSKILL TRAINER**

"Empowering Engineers for  
Career Success"

CONTACT  
MRS LAXMI M C , ASST PROF, CSE

**REGISTER  
NOW!**



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## **Department of Computer Science and Engineering**

### **Value Added Course on Engineer Your Career**

#### **Syllabus**

#### **Module 1: Resume Writing and Personal Branding (6 hours)**

##### **Resume Writing**

- Importance of a well-crafted resume
- Structure and components of a professional resume
- Tailoring resumes for different job profiles

##### **Personal Branding and Online Presence**

- Building a personal brand
- Leveraging LinkedIn and other professional networks
- Creating a strong online presence

#### **Module 2: Aptitude and Technical Test Preparation (6 hours)**

##### **Quantitative Aptitude**

- Key topics: arithmetic, algebra, geometry, and data interpretation
- Problem-solving techniques
- Practice questions and solutions

##### **Logical Reasoning**

- Key topics: puzzles, sequences, analogies, and syllogisms
- Strategies for efficient problem-solving
- Practice questions and solutions

##### **Technical Test Preparation**

- Understanding the format of technical tests
- Reviewing core engineering subjects
- Practice questions and solutions

#### **Module 3: Soft Skills and Group Discussions (6 hours)**

##### **Communication Skills**

- Importance of effective communication in the workplace



- Verbal and non-verbal communication
- Public speaking and presentation skills

### **Group Discussions**

- Purpose and format of group discussions
- Techniques for effective participation
- Practice sessions with real-time feedback

### **Module 4: Interview Techniques and Mock Interviews (6 hours)**

#### **Interview Preparation**

- Types of interviews: HR, technical, behavioral
- Common interview questions and how to answer them
- Researching the company and the role

#### **Mock Interviews**

- Conducting mock interviews with industry professionals
- Real-time feedback and improvement tips
- Developing confidence and reducing interview anxiety

### **Module 5: Professional Etiquette and Career Planning (6 hours)**

#### **Professional Etiquette**

- Workplace etiquette and professional behavior
- Dressing for success
- Networking and relationship building

#### **Career Planning and Goal Setting**

- Identifying career goals and aspirations
- Creating a career roadmap
- Continuous learning and professional development



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ENGINEERING COLLEGE

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**Course Outcomes:**

- Develop a professional resume and strong online presence
- Enhance aptitude and technical test-taking skills
- Improve communication skills and group discussion techniques
- Master interview techniques and gain confidence through mock interviews
- Understand professional etiquette and plan for a successful career

**Co-Ordinator**  
**Mr. Laxmi M C**

**Mr. Vivekavardhana Reddy**  
**HOD**