

## PROFILE OF THE INSTITUTE

Vasavi College of Engineering is established in the year 1981 under the aegis of Vasavi Academy of Education. The college has been granted autonomy by the University Grants Commission, New Delhi and Osmania University, Hyderabad for all the programmes for a period of six years with effect from 2014-15. The college is currently offering 6 UG and 5 PG Programmes. All the six UG programmes are accredited by the NBA. The college has well qualified and experienced faculty.

### **Vision of the Institution:**

Striving for a symbiosis of technological excellence and human values.

### **Mission of the Institution:**

To arm young brains with competitive technology and nurture holistic development of the individuals for a better tomorrow.

## ABOUT THE DEPARTMENT

The Civil Engineering Department is part of the college since its inception. Besides high quality teaching the Department is actively involved in material testing and consultancy works. The Department has 15 members of faculty and 11 members of supporting staff. The Department has nine full-fledged laboratories in addition to a Centre for Geomatics. The Department also has in its gamut an exclusive computing facility with the latest software in Design, Planning and Management, Remote Sensing, GIS, Land & Water Management, etc. It has even organized two international conferences and several national conferences.

### **Vision of the Department:**

To strive for excellence in order to make the students better citizens with technical knowledge and social awareness.

### **Mission of the Department:**

To impart knowledge in the latest technologies to the students of civil engineering to fulfil the growing needs of the society.

## ABOUT THIS STTP

Finite Element Method (FEM) is a one of the most powerful numerical analysis tools ever devised to analyse complex problems of engineering. The real problems in various fields of engineering are complex and to obtain solutions of these problems, mathematical modelling of higher order partial differential equations is quite essential. The exact solutions for these higher order partial differential equations are almost impossible if the geometry and boundary conditions are very complex. Under these situations numerical methods must be applied to obtain approximate solutions. Finite element method is a very popular numerical method and has wide applications in various disciplines like Civil, Mechanical, Automobile, Aerospace, Industrial engineering etc. Even though many FEM software are available, it is necessary that the user should have good knowledge about the basics of FEM. The Short-Term Training Programme (STTP) is planned to fulfil this objective. Through this course, the participants will get a thorough idea of the FEM starting from the fundamental concepts to more advanced topics. This course is best suited to young teachers, engineers, and researchers, and will equip them to solve various problems of engineering, sciences and industries. The STTP serves the purpose of bringing together the engineers from various domains such as Structural, Thermal and Fluid Dynamics fields.

### **Address for Correspondence**

**Dr. C. Mohan Lal**

**Associate Professor**

**Department of Civil Engineering**

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**Telangana**

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**Email: c.mohanlal@staff.vce.ac.in**

## RESOURCE PERSONS

**Dr. Ramji Manoharan, Professor & Head,**  
Dept. of Mechanical & Aerospace Engg, IIT,  
Hyderabad

**Dr. Amirtham Rajagopal, Professor,**  
Department of Civil Engineering, IIT Hyderabad.

**Dr. Ashok Kumar Pandey, Associate Professor**  
Dept. of Mech. & Aerospace Engg., IIT Hyderabad

**Dr. Manoj Pandey, Asst. Professor,**  
Dept. of Mechanical Engineering, IIT Madras.

**Dr. K. Gopi Krishna, Asst. Professor,**  
Department of Civil Engineering, NIT, Warangal.

**Dr. T. P. Tezeswi, Asst. Professor**  
Department of Civil Engineering, NIT, Warangal

**Dr. M.V. Rama Rao, Professor,**  
Department of Civil Engineering, VCE, Hyderabad

**Er. R. Vivek Prasad**  
**CSI Engineering Software Pvt. Ltd., New Delhi**

### COURSE CONTENT:

1. Introduction to Finite Element Method
2. Energy/variational approaches
3. Weighted Residual approaches
4. Solution of 1D, 2D and 3D problems
5. Applications to heat transfer, fluid mechanics & solid mechanics problems
6. Application to composite materials & vibrational problems
7. Demonstration of FEM software

### WHO CAN ATTEND?

The course will be beneficial to:

- Faculty members from Civil, Mechanical, Automobile, Aerospace, Industrial engineering.
- Members from industry, R & D
- PG students & research scholars pursuing PhD.

### **REGISTRATION: Free**

#### **Registration link:**

<https://forms.gle/uMFqBStzFM3aLnBL6> or use QR code



#### **Online classes timings:**

##### **Morning sessions:**

10 AM to 11.15 AM & 11.30 AM to 12.45 PM

##### **Afternoon sessions:**

2 PM to 3.15 PM & 3.30 PM to 4.45 PM

#### **IMPORTANT DATES**

Last date of submission of registration form : 21.11.2020

Intimation of selection to the participants : 22.11.2020



### CHIEF PATRONS

Sri. P.Ram Mohan Rao  
President, Vasavi Academy of Education

Sri. M.Krishna Murthy  
Secretary, Vasavi Academy of Education

### PATRON

Sri. P.Balaji,  
CEO, Vasavi College of Engineering

### CHAIRMAN

Dr. S.V. Ramana, Principal

### CO-CHAIRMAN

Dr. B. Sridhar, Professor & HOD Civil

### ADVISORY COMMITTEE

Dr. N. Murali Krishna, Retd. Professor,  
Dept. of Civil Engg, OU., Hyderabad.

Dr. Amirtham Rajagopal, Associate Professor,  
Department of Civil Engineering, IIT Hyderabad.

### PROGRAMME COORDINATOR

Dr. C. Mohan Lal  
Associate Professor, Dept. of Civil Engineering

### COORDINATION COMMITTEE

Dr. M.V.Rama Rao, Prof., CED

Sri M. Bhasker, Assoc. Prof., CED

Dr. M. Srinivas, Assoc. Prof. CED

Dr. T. Srinivas, Assoc. Prof. CED

Sri. S.Vijaya Kumar, Assoc. Prof. CED

Sri. M.V.S.S. Sastri, Assoc. Prof. CED

Dr. K. Jayasree, Asst. Prof. CED

Mrs. P.Dhatri, Asst. Prof. CED

Mr. S. Kesav Kumar, Asst. Prof. CED

Mrs. N. Niharika Asst. Prof.

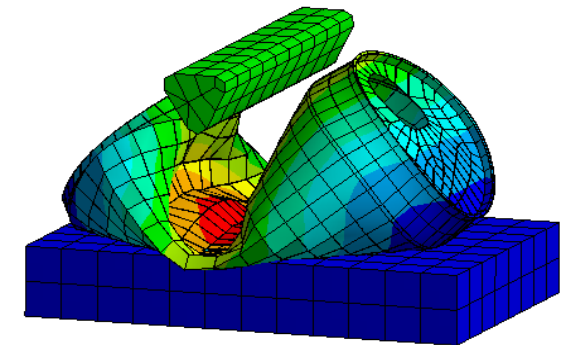
Mrs. R. Sowmya, Asst. Prof. CED

Mr. J. Chaitanya, Asst. Prof. CED

Ms. B. Neethu, Asst. Prof. CED

## AICTE Sponsored One Week Online Short-Term Training Programme (STTP) on “Advances in Finite Element Methods for Industry & Research Applications”

23<sup>rd</sup> – 28<sup>th</sup> November 2020



**Organized by**

**Department of Civil Engineering**  
**Vasavi College of Engineering**  
**(Autonomous)**  
(Sponsored by Vasavi Academy of Education Regd.)  
(Approved by AICTE)  
(Affiliated to Osmania University)  
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