

## Short Course

on

# Introduction to Finite Element Method: Application to Civil Engineering

28-30 August 2018 at RGM CET, Nandyal

### ABOUT COURSE

Finite Element Analysis (FEA) has become an integral part of design process in automotive, aviation, civil Construction and various consumer and industrial goods industries. The huge competition in the market puts tremendous pressure on the industries to launch reasonably priced products in short time, making them to rely more on softwares. As dependability of the industries on FE tools increases, so the responsibilities of the Finite Element Analysts to provide results with most accuracy within available resources and time constrains. The results of FEA are so accurate that FEA simulations have replaced physical experiments. FEA tools are being used to analyze multi disciplinary problems, including but not limited to structures, thermal and fluid flow, bio-technology, electromagnetism etc.

This course is best suited for young teachers, engineers and scientists working in Structural/Fluid-flow/Environmental/Geo-technical/Thermal Engineering, Govt. R&D Departments, Research Organizations, Consulting companies, and self-employed practitioners. Hence, through this course, the participants will get a thorough idea of the FEM starting from the fundamental concepts to more advanced topics. This course would provide an excellent opportunity for the participants to interact with one another and discuss problems and solutions of mutual interest. At the end of the course, the participants may be in a position to identify and select appropriate FEA methodologies for their specific conditions.

### ABOUT RGM CET

The college was established in 1995. It has been setup with an aim of achieving technological excellence through innovation and with a motto of "EDUCATION for PEACE". It is approved by AICTE, NAAC of UGC with 'A+' Grade, New Delhi, Affiliated to JNTUA Ananthapuramu and most of the departments are accredited by NBA, New Delhi. College has been Conferred Autonomous Status from UGC in the year 2010 & renewed in 2016. This was one of the three best performing private Engineering Colleges of AP and was selected to participate in World Bank Aided, Govt. of India's Technical Education Quality Improvement program. This was the first private Engineering College affiliated to JNTU at U.G and P.G levels. College has secured 11 prestigious Gold Medals including the gold medal for the best outgoing of all branches of all Engineering Colleges of JNTU in Andhra Pradesh. 18 batches graduated from this college so far. The institute possess excellent infrastructure and instructional facilities to cater the needs of all program offered and to carry out the research work.

### ABOUT SCE

The School of Civil Engineering in RGM CET is a well established department in terms of infrastructure facilities viz., class rooms, state of the art laboratories, highly qualified faculty, a lot of academics activities such as seminars, conferences, work-shops, expert lectures, invited talks, etc., are conducted often apart from intensified research in various domains of civil engineering. These types of academic activities would add up to the reputation and popularity of the department. Any one pursues UG, PG and Ph.D by research will develop knowledge, skills, competency and also professional ethics and values.

The department possesses well qualified and experienced senior professors and teaching faculty who all can lead the students to become knowledgeable and competent engineers in their professional careers. The department was started in the year of 2008 at present with an intake of 180 students per year. The PG course M.Tech in Structural engineering was started in the academic year 2014 with intake of 18. Many faculties are pursuing their research in the department pertaining to their specialization. Any aspirants who wish to study B.Tech or M.Tech course in RGM CET can feel proud that the level of education is on par with highly reputed technical institutions in India.

### PROGRAM SCHEDULE

#### 28 August 2018

- ✓ Session 1: Introduction to FEM procedures
- ✓ Session 2: FEM formulation for bar elements
- ✓ Session 3: FEM formulation for truss elements
- ✓ Session 4: FEM formulation for beam elements

#### 29 August 2018

- ✓ Session 1: Constant Strain Triangle formulation
- ✓ Session 2: Axi-symmetric formulation
- ✓ Session 3: 2D Iso-Parametric elements
- ✓ Session 4: Introduction to dynamic analysis

#### 30 August 2018

- ✓ Session 1: FEM formulation for beam elements
- ✓ Session 2: Finite Difference Method and its applications
- ✓ Session 3: Introduction to Non-linear analysis
- ✓ Session 4: Feedback & Certificate Distribution

### REGISTRATION FEE

Students	Rs. 500/-
Faculty	Rs. 1000/-

Last date for Registration:

**10 August 2018**

**Registrations seats are limited to 40**

Registration fee includes:- Course Material, Participation Certificate & Lunch.  
Payment of registration fee should be made by demand draft or on par cheque in favor of "HOD CIVIL ENGINEERING".

### Chief Patron

Dr. M. Shanthi Ramudu, Chairman

### Patron

Mr. M. Shivaram, Managing Director

### President

Dr. T. Jayachandra Prasad, Principal

### Vice-Chairman

Dr. G. Sreenivasulu, HSCE

### Convener & Course Faculty

Dr. Chenna Rajaram, Asst. Prof

### Co-Convener

Mr. T. Raghavendra, Asst. Prof

### Organizing Committee

Dr. K. Sukumaran, Dean (R&D)

Dr. T. Appa Reddy Dean (A)

Dr. M. Sunandana Reddy, Asso. Prof

Mr. C. Krishnama Raju, Asso. Prof

Mr. B. Naga Kiran, Asso. Prof

Mr. K. Madan Gopal, Asso. Prof

Mr. G. N. Sreekanth, Asst. Prof

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Mr. B. Bhaskar, Asst. Prof

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Ms. B. Rohini, Asst. Prof

Mr. C. Shashi Kiran, Asst. Prof

Ms. K. Lakshmi Priya, Asst. Prof

Mr. J. Phanibhushan Reddy Asst. Prof

Mr. K. Dada Hayath, Asst. Prof

Ms. B. Snigdha Malya, Asst. Prof

Mr. B. Harshavardhan, Asst. Prof

Mr. K. Usenaiah, Asst. Prof

Mr. P. Epapra, Asst. Prof

Mr. John Shelton, Asst. Prof

Ms. S. Sana Sultana, Asst. Prof

### SCHEDULE

9:30-11:00	11:00-11:30	11:30-13:00	13:00-14:00	14:00-15:30	15:30-16:00	16:00-17:30
Session-1	High Tea	Session-2	Lunch	Session-3	High Tea	Session-4

### ADDRESS for COMMUNICATION

Mr. T. Raghavendra, Asst. Prof (+91 89852 88568)

School of Civil Engineering,

Rajeev Gandhi Memorial College of Engineering & Technology,

NANDYAL - 518 501, INDIA

**Online Registration Link:**

<https://docs.google.com/forms/d/e/1FAIpQLScQu->

[ICCVRMk4iWYc4xBZnlUG40BqNTd493kl5qts6893C5Lw/viewform](https://docs.google.com/forms/d/e/1FAIpQLScQu-ICCVRMk4iWYc4xBZnlUG40BqNTd493kl5qts6893C5Lw/viewform)

Organized by

School of Civil Engineering

R. G. M College of Engineering and Technology (Autonomous),

Nandyal 518 501, A. P., INDIA

(Affiliated to J. N. T. University, A. P., INDIA)

(Approved by AICTE, Accredited by N.B.A, New Delhi, NAAC-A+ Grade)

