

Marathwada Institute of Technology, Aurangabad

#### One Day Workshop On



Friday, 11<sup>th</sup> November, 2016

## Conducted by SVR InfoTech

# Organized by

Department of Mechanical Engineering, Marathwada Institute of Technology, Aurangabad



#### Marathwada Institute of Technology, Aurangabad A

MIT is a group of educational and research Institutions run by Gramaudyogik Shikshan Mandal (GSM), Aurangabad, Maharashtra, India which is the parent trust (Organization) established in 1975. Over the last three and half decades, MIT has established 19 Institutes and 5 centres of learning at multiple locations in India. MIT has grown organically in three important provinces of India, viz. Maharashtra, Delhi & Uttar Pradesh. More than 12000 full time & 2500 part time students are on different campuses for primary to post graduate education and vocational training. MIT offers wide range of courses for graduation level in faculty of -Engineering & Technology, Management, Architecture, Science and Nursing. Post-Graduation programs are offered in Engineering & Technology, Management, Information Technology, and Architecture, MIT also offers vocational level programs like Polytechnic, Industrial skill set and Technical school level programs.



#### **Department of Mechanical Engineering**

The Department is offering BE in Mechanical Engineering and presently 800+ students are pursuing the degree. The three PG (Master of Engineering) courses offered in Mechanical Engineering are specialized with Manufacturing, Heat Power, and Automation. The Department has recognized as a Ph.D. Research Center by Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, considering its research activities in the field of Mechanical Engineering and Technology. Department has developed strong linkages between Industries, Government & Non-Government Organizations. By serving as a catalyst for Industry-Academic partnerships, Department attempts to bring intellectual capital and emerging technologies together to improve quality of Engineering & Technology education.

#### About The FEAST<sup>SMT</sup>

**FEAST**<sup>SMT</sup> is ISRO's structural analysis software based on Finite Element Method (FEM) realized by Structural Engineering Entity of Vikram Sarabhai Space Centre (VSSC). The software is developed in C++ Programming Language based on Object Oriented (OO) principles.

The technology comprises of PreWin as Pre and Post Processor, with its own solver FEAST<sup>SMT</sup>. With advanced solution algorithms the solver is able to handle large order problems of structural engineering.

This indigenous software developed by Indian Government Organization VSSC is one of good challenges for American software developer companies in CAE community. Major Colleges & corporates have adopted this technology for their FEA need.

### **FEAST**<sup>SMT</sup> Features:

- Linear Static
- Visco-elasticity
- Transient response
- Fluid-structure
- Interaction

#### **Mesh Generation:**

Supports mapped and automatic meshing techniques

- Bar2, Bar3
- Tria3, Tria6
- Tetra

- Thermo Elasticity
- Base excitation
- Frequency response
- Free Vibration
   Buckling, etc.

- Quad4, Quad8, Quad9
  - Hexa8, Hexa20, Hexa27
  - All QUAD auto mesh



Initial FE mesh is generated on the geometry model and further manipulated through the transformations and commands.



Post Processing



Multiple ways of visualizing the analysis results

Contours

X-Y plot

• Tabulated display

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- Deformed Geometry
- Animation
- Vector plot

Schedule of workshop sessions		
Details	Presenters	Workshop Registration Form
<ul> <li><u>1<sup>st</sup> Half:</u></li> <li>Introduction of FEAST for CAE Community &amp; its usage.</li> <li>Need of Collaboration with Colleges</li> <li>Bridging the gap between ISRO, Industry &amp; Education.</li> <li><u>2<sup>nd</sup> Half:</u></li> <li>Hands on Practice on FEAST along with theory.</li> <li>Examples on solving numerical Problem &amp; industry problems.</li> </ul>	VSSC ISRO's FEAST <sup>SMT</sup> Team	Name: Designation: Name of the Institution/ Industry:  E-mail: Mobile:
Patron Prof. Munish Sharma Director General, MIT Aurangabad		Signature of the participantSponsoring Authority (Signature and Stamp)
Chairman Dr. Nilesh G. Patil PrincipalDr. N. Nehete Vice ChairmenDr. H. M. Dharmadhikari VP (Admin.)Dr. D. V. Nehete VP (Acad.)Convener Dr. D. V. Nehete VP (Acad.)Dr. D. V. Nehete VP (Acad.)Dr. D. V. Nehete VP (Acad.)Dr. D. V. Nehete VP (Acad.)Orgoneer Dr. Subhash V. Lahane Head Department of Mechanical EngineeringOrganizing Secretary Mr. Pankaj U. ZineOrganizing CommitteeMs. P. PriadarshniMr. A. P. Patil Mr. S. L. MuleyMr. P. J. KaleMr. S. L. MuleyMr. M. A. PatilMr. N. R. Chavda Mr. N. V. Kalyankar		Date: 11 <sup>th</sup> November, 2016 Time: 10.00 am to 05.00 pm Venue: Department of Mechanical Engineering, Seminar Hall No. 105 Marathwada Institute of Technology, Aurangabad
		Please Note:1. No Registration fees2. Participation Certificate will be provided3. In time Registration is kindly requestedContact for registration and other details:Mr. Pankaj U. Zine9643810334
		Mr. S. Kumbhar 8485897928 Mr. Aniket Bhelsaikar 8796140143 Dr. Subhash V. Lahane 8149633284 <u>Registration by mail before 10/11/2016</u> E-mail addresses: <u>subhash.lahane@mit.asia</u> , <u>support@svrinfotech.net</u> <u>pankaj.zine@mit.asia</u> , <u>admin@svrinfotech.net</u>