

About the Institute:

"VallurupalliNageswara Rao VignanaJyothi Institute of Engineering and Technology" was established by the 'VignanaJyothi' Society as a not-for-profit organization in the year 1995-96, with a motto to provide value based education on par with international standards. The Philosophy of Vignana Jyothi unravels education as a process of "Presencing" that provides, both individually and collectively, to one's deepest capacity to sense and experience the knowledge and activities to shape the future.

The Institute is established with the permission of AICTE and Govt. of AP. Institute offers 9B.Tech.13 M.Tech and Ph.D. Programs. All the courses offered by the institute are affiliated to Jawaharlal Nehru Technological University Hyderabad, Hyderabad. The institute is recognized under section 2(f) and 12(B) of the UGC Act, 1956. The Institute is accorded Autonomous status by UGC for 6 years in 2012 and Extension of Autonomous Status is accorded for 10 years in 2018. Institute is Accredited by NAAC with 'A++' Grade with CGPA 3.73/4.0 in Cycle-II in 2018. 7 B.Tech. courses are accredited by NBA. The institution is granted with "College with Potential for Excellence (CPE)" status by UGC for a period of five years since 2016. AICTE has identified the institute as a Research Institute under the National Doctoral Fellowship scheme and 5 Departments are recognized as Research Centres by JNTUH, Hyderabad. Institute is certified by International Standards Organisation with ISO 9001:2015, QS i-GAUGE awarded "Diamond" college rating and E-LEAD (E-Learning Excellence for Academic Digitisation) Certification. MHRD, India has ranked the institute at 127th rank in the Engineering category and 151-200 rank band in the Overall category in NIRF 2020.

About the Department:

The Department of Mechanical Engineering was established in 1995 with an intake of 60 in B.Tech. Course, which was increased to 120 in 2010. In addition to B. Tech course, it offers 2 M. Tech programs in Advanced Manufacturing Systems & CAD/CAM with an intake of 18 each and a Diploma in Mechanical Engineering (II shift) with an intake of 120. The department has a team of 50 highly experienced faculty and staff involved in dedicated research, innovation and training. It has fully equipped workshop and advanced laboratories like Machine Tools, Thermal Engineering, Heat Transfer, Metallurgy and Instrumentation etc. The department also has sophisticated CNC, CAD, CAM labs with licensed software's like AUTOCAD, IDEAS, ANSYS, ADAMS, CATIA, FLEXSIM, AUTOMOD, MATLAB, EDGE CAM, MASTER CAM and MINITAB etc. in the exclusive UG and PG CAD and CAM labs. The department also has a Center of Excellence in Joining Technologies. Department has received grants from various funding agencies for carrying out research projects. As on date, 12 research funded projects have been completed and 02 are ongoing. The department has two exclusive Makerbot 3D printers and Artec Scanner and digital manufacturing laboratory as part of academic curriculum.

Organising Committee:

Convenor: Dr. G S Gupta
Professor and Head, MED

Coordinator: Dr. N Kiran Kumar
Associate Professor, MED,
kirankumar_n@vnrvijet.in, 9481523799



Short Term Training Program on Advanced Techniques in Modeling and Analysis for Mechanical Engineering

(AICTE Sponsored)

31st Aug – 5th Sep 2020

**Module 2: Advanced Techniques in
Modeling and Analysis for Structural and
Thermal Applications**



Organized by

Department of Mechanical Engineering
**VNR Vignana Jyothi Institute of
Engineering and Technology**

An Autonomous Institute, NAAC Accredited 'A++' Grade
NBA Accredited CE, EEE, ME, ECE, CSE, EIE, IT - B.Tech
Approved by AICTE, New Delhi, Affiliated to JNTUH
"College with Potential for Excellence" by UGC

Nizampet (S.O), Hyderabad – 500 090
Telangana State, India.

Overview of the Program:

The knowledge and skill in programming help the faculty to train participants according to the innovative thoughts. The acquaintance of programming skills to carryout research and consultancy. This makes a way in establishing virtual laboratories through modelling, analysis and numerical techniques. This program develops interactive learning and courses for modern pedagogy and provides hands on experience. Conversion of physical systems into mathematical modelling is essential to provide sustainable solutions for research and industry in the fields of Mechanical Engineering systems like Vibrations, Composite materials, Fluid mechanics, Finite element analysis & Methods and Mechanisms. It provides platform to academicians for better execution of the projects by using numerical techniques in addition to experimental analysis.

Objectives of the Program:

- The aim of this program is to train the participants about the modelling and analysis of engineering applications in the fields of Mechanical/ Aerospace/ Civil engineering domains.
- To discuss the analytical techniques related to Structures, Materials, Heat transfer and fluids through computational methods for optimal solutions.
- To expose the scope of research and development in modelling and analysis through programming through advanced numerical tools

Who Can Participate?

This Programme is open to Faculty, Industry Professionals and graduates in Mechanical engineering and allied fields of engineering

How to Apply:

Participants should apply by submitting the details through the Google form before 29th August 2020 (5:00 PM).

No Registration Fee

Online Registration form

<https://forms.gle/aPEYQQj472kWRRam9>

Confirmation of Participation:

On receipt of the registration form, selected participants will be sent confirmation of their participation through E-mail by 29th August 2020. The details regarding schedule and link for Google Meet will be shared only to selected participants through mail. The number of participants for this program is limited. E-Certificate will be provided to those who have attendance above 80% and successfully completed (>50% marks) of the assessment at the end of the program.

Topics:

- *Modelling and analysis of structural components*
- *Damage mechanics study in open hole CFRP specimen under flexural loading*
- *Dynamic analysis of structural components*
- *Real time Optimization and control of process industries*
- *Finite element Modelling of in the study of Snow and avalanches*
- *Thermo mechanical Analysis of Carbon/ Carbon Composites*
- *Nanomechanical properties: Combined Nanoindentation & Finite Element Approach*
- *Introduction to Machine Learning for Heat Transfer*
- *Overview of Turbulence Closure Modelling for Fluid Flow Simulations*
- *Application of Computational Fluid Dynamics (CFD) to Multiphase Flows*
- *Study of gas flow through micron deep channels : New regimes of fluid Mechanics.*
- *Development of Next Generation I.C. Engines for automobiles*

Co-Coordinator:

Sri SNS Sai Hari

Assistant Professor
9989447955, saihari_sns@vnrvjiet.in

Smt Ch Rajeswari

Assistant Professor

Resource Persons:

Eminent speakers with research experience will share the expertise in the fields of modelling and analysis.

Prof. Puneet Mahajan, Head

Dept. of Applied Mechanics, IITD New Delhi

Prof. M. Manzoor Hussain

Dept. of Mechanical Engineering JNTUH

Prof. K Ramesh, Institute Chair

Dept. of Applied Mechanics IITM Chennai

Prof. Ramji Manoharan, Head

Dept. of Mechanical & Aerospace Engg. IITH

Prof PMV Subba Rao, Ray W. Herrick Chair

Dept. of Mechanical Engg. IITD, New Delhi

Prof. Balaji Srinivasan

Dept. of Mechanical Engineering IITM Chennai

Prof. Sawan S Sinha

Dept. of Applied Mechanics, IITD New Delhi

Dr. Rajnish Sharma

School of Engineering, IIT Mandi

Dr. Chaman Chandel

Scientist, SASE-DRDO

Dr. Harpreet Singh

Dept. of Mechanical Engineering, IIT Goa

Dr. B. Shankara Rao

Aveva Cognizant solutions, Hyderabad

Dr. Ch. Niranjan Reddy

TechnipFMC, Norway

Dr. Ajay Kumar Kaviti

Dept. of Mechanical Engineering, VNRVJiet

Dr. Deeksha Porwal

Ph.D (Engineering-NIT Durgapur)

Chief Patron:

Dr. D N Rao , President, Vignana Jyothi
Sri K Harischandra Prasad,
General Secretary Vignana Jyothi

Patrons:

Dr. C D Naidu, Principal,
Dr. B Chennakesava Rao, Director (Advancement)
Dr A Subhananada Rao, Director (R&D)

Members:

Dr. A Mallika HoD, Civil Engg.
Dr. T Srinivasa Rao, HoD, Automobile Engg.

Faculty and staff,
Department of Mechanical Engineering

Self Care - Safe Society
Wish you a Happy Learning