Registration Details
-No Registration Fee.
-Last date for Registration
  Slot-I 21.11.2020
  Slot-II 28.11.2020
-Details related to registration confirmation and meeting link will be shared through e-mail,
-Maximum number of participants are limited.

Eligibility
This course is open to faculty members and Research scholars of AICTE approved Engineering colleges, Engineers from R&D institution and industries.

E-Certificate
E-Certificate will be issued on meeting the following criteria,
- Participants attendance should not be less than 80%.
- Participants should fill and submit the daily feedback form.
- Participants should secure minimum 60% of mark in the assessment conducted at the end of STTP.

ORGANIZING COMMITTEE

CHIEF PATRON
Prof. M.K. SURAPPA, FNA,FNAE
Hon’ble Vice - Chancellor
Anna University, Chennai.

PATRON
Prof.L.KARUNAMOORTHY, M.E., Ph.D.
Registrar
Anna University, Chennai.

CONVENOR
Prof. USHA NATESAN,Ph.D., D.Litt.
Director-Centre for Constituent Colleges
Anna University, Chennai.

CO-ORDINATOR
Prof. T.SENTHILKUMAR, M.E., Ph.D.
Dean
University College of Engineering
Anna University, BIT Campus
Tiruchirappalli - 620024

CO-COORDINATORS

Slot I - 23rd Nov - 28th Nov 2020
Dr.P.GOPAL & Mr.PON AZHAGIRI

Slot II - 30th Nov - 05th Dec 2020
Dr.M.CHANDRASEKAR & Dr.B.KUMARAGURUBARAN
Assistant Professor
Department of Mechanical Engineering
University College of Engineering
Anna University, BIT Campus, Tiruchirappalli
Mobile Numbers: 7904251051 & 9443882060
### About the Programme

Nowadays, finite element analysis (FEA) has become an integral part of design for automotive, aerospace, civil construction, consumer & 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 virtual tools (CAD/CAE) to accelerate the design and development of products. The results of FEA are so accurate that FEA simulations have replaced physical experiments.

The objective of this course is to introduce finite element method to engineers so that they are equipped to solve various problems of engineering, sciences and industries. The course is best suited to young teachers, researchers and Research and Development executives and will be very useful to those who do FEA and FEM based numerical simulations using commercial software package ANSYS. A background of engineering/applied sciences is necessary for the understanding of the materials covered in this course. Hence, through this course, the participants will get a thorough idea of the FEM starting from the fundamental concepts to more advanced topics.

### Resource Persons

Experienced faculty from Reputed institutions, Experts from Industries will deliver lectures and conduct online hands on training sessions.

### Important Note

- Interested participants have to complete online registration for participating in STTP.
- Confirmation of eligible candidates for STTP will be on first come first serve basis.

### Topics to be covered

1. Basics of finite element analysis
2. Mathematical modeling and Governing equations of 1D and 2D structural, thermal and fluid flow problems
3. Finite element formulation of 1D and 2D structural, thermal and fluid flow problems
4. Introduction to Computational Fluid Dynamics using Finite element method
5. Applications of finite element analysis – Welding, MEMS, Composite Materials and Optimization
6. Introduction to ANSYS software and hands on training.

### ABOUT THE INSTITUTION

University College of Engineering – Bharathidasan Institute of Technology (BIT) Campus, Tiruchirappalli has been established by the Government of Tamil Nadu as a Technical Institution at Tiruchirappalli known as Rock Fort city, with rich cultural heritage and home, to many reputed educational institutions. The institution is established with a view to impart quality student centered technical education, so as to produce proven technocrats and to strive hard for continuous development and improvement in learning, research and developmental activities. Teaching, Research and Extension services are carried through the Departments and Centers of the Institution.

The institution also works towards fostering partnership with academic and industrial experts to provide quality education and opportunities for entrepreneurial development by providing hands-on training in the frontier areas. BIT has carved a niche for itself in providing technical education in the disciplines that are unique in our country. Aiming at excellence, the institution offers UG, PG and research programmes in various disciplines.

### The Following Departments are Accredited by NBA

- Department of Bio-Technology
- Department of Petrochemical Technology
- Department of Pharmaceutical Technology

### ABOUT THE DEPARTMENT

The Department of Automobile Engineering of Anna University, BIT Campus, Tiruchirappalli was started in the year 2005 and has dedicated teachers. The department offers (i) B.E. Programme in Mechanical and Automobile Engineering, (ii) M.E., programme in Energy Engineering and (iii) PhD programme in Mechanical and Automobile related areas. It has state of art laboratories acting as a catalyst for improving student’s achievements and performance.

The Department has research activities funded by CSIR, DRDO and CTDI, Anna University Chennai. The department has also played host to research fellows from foreign Universities under the ambit of CICS, Chennai.

Three research scholars have been awarded Ph.D. degree and there are 10 research scholars pursuing their research work in the department. More than 75 papers have been published in Journals with impact factor and Science Citation Index in the following research areas.

- Alternative fuels for IC engines
- Fatigue behavior of Friction stir welded Alloys
- Advanced Cooling Technologies
- Composite and Smart Materials
- Aerodynamics
- Ergonomics
- Solar Photovoltaics