

TEQIP-3

Technical Education Quality Improvement Programme

TEQIP (III) SPONSORED

ONE WEEK STTP

on

**COMBUSTION CONCEPTS AND
APPLICATIONS
(30th Nov to 4th Dec 2020)**



Organized By



**Department of Mechanical Engineering
S. V. National Institute of Technology
SURAT - 395 007 (Gujarat) India
Website: www.svnit.ac.in**

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ABOUT SVNIT

The institute was initially established as Sardar Vallabhbhai Regional College of Engineering & Technology in 1961 and was upgraded as a National Institute of Technology on 4th October, 2002. SVNIT is one of the pioneering engineering institutions of the country which has contributed many outstanding engineers in India & abroad. It is conducting six UG programs, seventeen PG programs, three integrated M.Sc. programs and Ph.D. program in all disciplines of engineering and applied sciences. Special attention is given to interdisciplinary research. The institute has an excellent placement record with a number of top ranking companies visiting the campus every year.

ABOUT DEPARTMENT

The department of Mechanical Engineering offers Under Graduate course in Mechanical Engineering and Post Graduate programs in, Turbomachines, CAD-CAM, Mechanical Engineering, Thermal System Design, Manufacturing Engineering.

The department also offers Ph.D. programs to promote research activities in the above mentioned areas. The consulting services in diverse fields of Engineering are carried out for local government, semi-government, non- government organizations, private firms etc. also.

ABOUT THE PROGRAM

Combustion and its control are essential to our existence on this planet as we know it. Our nation's electrical needs are met primarily by combustion. Industrial processes rely heavily on combustion. Propulsion and transport industries are based on the engines powered by combustion. In addition to helping us make products, combustion is used at the other end of the product life cycle as a means of waste disposal. The major pollutants produced by combustion are unburned and partially burned hydrocarbons, nitrogen oxides (NO and NO₂), carbon monoxide, sulfur oxides (SO₂ and SO₃), and particulate matter in various forms. In the last 20 years, stringent restrictions have been increasingly placed on pollutant emissions from combustion in land-based gas turbines for power generation applications. This led to the research in the area of designing the most efficient combustion systems.

Considering the importance of combustion in our society the program is aim to develop an interest in the area of Combustion science. The basic objective of this training program is to impart knowledge of combustion to post graduate students, research scholars, faculty members and engineers working in the industries. From this STTP, participants will know the fundamental and the importance of combustion in various engineering and scientific applications. Also, participants will learn the numerical/ experimental approach to solve problems related to combustion.

TOPICS TO BE COVERED

- ✓ Thermodynamics of Combustion
- ✓ Physics of Combustion
- ✓ Chemistry of Combustion
- ✓ Premixed flames
- ✓ Non-premixed flames
- ✓ Turbulent Combustion
- ✓ Emissions generation from Combustion
- ✓ Combustion and Flow Diagnostics
- ✓ Design aspects of combustion systems
- ✓ Supersonic Combustion
- ✓ Combustion in IC Engines
- ✓ Combustion in Gas Turbine Engine
- ✓ Combustion in Rockets
- ✓ Combustion Instability

ELIGIBILITY

Faculty members, Research scholars, UG students, Industry personnel and practicing engineers are eligible for this STTP.

REGISTRATION FEE

Registration fee for the program is Rs. 300 for research student, Rs. 600 for faculty from academic institution and Rs. 5000 for industry personnel and practicing engineers. Participants have to send bonafide certificate/photocopy of their valid identity card and payment details to naresh@med.svnit.ac.in. The registration fee should be paid online mode in account of "Director SVNIT TEQIP IRG" A/C No: 0277101028663 Canara Bank, Nanpura Branch Surat, IFSC: CNRB0000277.

IMPORTANT DATES

The program will be organized through Google meet. The last date for registration is 25th November, 2020. Number of participants is limited. Selection will be as per the eligibility, and on First-Come-First-Served basis. Short listed candidates will be informed through email. However, the certificate of participation will be issued only to those candidates securing more than 80 % attendance.

RESOURCE PERSONS



Faculties/ Experts from IITs, NITs and other premier Institutions/ Organizations will deliver lectures.

REGISTRATION LINK

Registration can be done using the following link or by scanning the given QR code.

URL: <https://t.ly/4qj7>

