

DST-SERB Sponsored Short-term
Training Program on

“Battery Thermal Management Systems: Present and Future” (Hybrid Mode)



June, 12-16, 2023

Organized by

**Department of
Mechanical Engineering**



S.V. National Institute of
Technology Surat, 395 007
Gujarat, India



About Institute

The institute was initially established as Sardar Vallabhbhai Regional College of Engineering & Technology in 1961 and it is elevated to Sardar Vallabhbhai National Institute of Technology with the status of 'Deemed University' on 4th October 2002. The Sardar Vallabhbhai National Institute of Technology (SVNIT) is one of the pioneering engineering institutions of the country, which has contributed many outstanding engineers in India and abroad. It is conducting six UG programs, seventeen PG programs, three integrated five years M.Sc. Programs, and Ph.D. program in all disciplines of engineering and applied sciences. Special attention is given to interdisciplinary research all across departments. The institute has an excellent placement record and growing by high pace in research as well.

Who will benefit?

Faculty of Engineering
Students: PG, PhD

<https://sites.google.com/med.svnit.ac.in/sttponbtms>



About the Department

The Department of Mechanical Engineering is one of the oldest departments from the start of institute (1961). The department has qualified and dedicated faculty members with the specialization in various areas. The department is undertaking a UG programs in Mechanical Engineering, five PG programs (Thermal System Design, Mechanical Engg., Turbo Machines, CAD/CAM, and Manufacturing Engg.) and a research program leading to Ph.D. degree in related specialization. For industry people, master program by research and part time Ph.D. program are also available. The research facilities in mechanical department are developing with addition of new equipment and laboratories, and modernization of old laboratories.

Resource Persons

Resource Persons for the program will be highly experienced faculty members from IITs, Industries, and the host Institute (SVNIT Surat).

Last Date of Registration

June 10, 2023

Coordinators



Dr. Hemant B. Mehta

Associate Professor, DoME,
SVNIT Surat,
hbm@med.svnit.ac.in
09924999778



Dr. Vipul M. Patel

Assistant Professor, DoME,
SVNIT Surat
vmp@med.svnit.ac.in
09582701745



Dr. Naresh Yarramsetty

Assistant Professor, DoME,
SVNIT Surat
naresh@med.svnit.ac.in
09966731733.

No Registration fees.

Maximum 25 Faculties and 10 Students
can attend the program on First come
First Serve Basis.

About the Program

The world is witnessing a global transition towards sustainable transportation, thanks to rapid technological advancements and extensive research in greener vehicle technology. As a result, electric vehicles have become the future of the automotive industry. Moreover, EV market in India is promising and aims to have 30% of all vehicles on the road be electric by 2030. Lithium-Ion Batteries (LIB) are the most suitable choice for EVs due to their high energy density and extended cycle life, although their performance is affected by ambient temperature. Operating above the safe working temperature limit can result in reduced battery cycles, capacity, and charging-discharging rates. This Program is designed to provide state-of-the-art trends and advancements in Battery Thermal Management of Electric vehicles which will enable them to promote industry and institute collaborations by working on the current research problems.

Apply online at

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<https://forms.gle/4v8ACfn3rayNg8kR9>

Content

- Electric Vehicles: Present and Future
- Batteries for Electric Vehicles
- Design of a modular battery pack for Electric vehicles
- Active and Passive battery thermal management systems
- Applications of PCM, Thermosyphons, and Loop Heat Pipe in BTMS
- Demonstration of Battery Simulation on ANSYS-Fluent
- Industrial Visit

Address for communication

Dr. Vipul M. Patel

vmp@med.svnit.ac.in

09582701745