

## SPONSORSHIP CERTIFICATE

Mr./Ms./Dr.-----

-----is an employee of our Institute/Organization and is hereby sponsored. He/She will be permitted to attend the programme in full, if selected.

Place: Signature of the Sponsoring Authority

Date:

Office Seal

### HOW TO APPLY

The applicants should send their registration form in the specified format through their Principal / Sponsors to reach us on or before **20.02.2019**.

### SCHEDULED DATES

**Last date for receipt of Registration form : 20.02.2019**

**Confirmation through E-mail : 22.02.2019**

**Registration form completed in all respects is to be sent to:**

**Dr.P.Gomathi,**

Dean,

N.S.N. College of Engineering and Technology,  
Manalmedu,  
Karur-639003,  
Tamilnadu.

Email : dean@nsn.ac.in

p.gomathi2006@gmail.com

**For any other details please contact:**

Mr.M.Umashankaran, HOD/Mech : 8012556793

Mr.S.Saravanakumar, AP/Mech : 9751466453

Email : umashan83@gmail.com

saravana.hitz@live.com

## ABOUT THE INSTITUTION

**N.S.N. College of Engineering and Technology** is established by N.S.N. Educational Trust and certified by an ISO 9001:2008 with an objective to impart world class technical education to the students in order to produce Engineers with global competence and emotional stability. The trust members include well known industrialist, businessman and professionals. The college promotes research and development, encourages entrepreneurship to enhance the young engineers for proactively responding to the evolving social needs. Motto of the institution is to make not just graduates but disciplined professionals for the betterment of the country. The college has signed MoU with top rated industries. Institution excels in academics, training and placements, practical exposures to students and research.

## ABOUT THE DEPARTMENT

**Department of Mechanical Engineering** currently has an intake of 120 students. The department also has Post Graduation Course **M.E. Industrial Safety Engineering** with an intake of 18 students. The department comprises of faculty members with various specializations in Mechanical Engineering and experienced in their respective fields. Practical Training Course (PTC) is planned and provided from second year onwards to enhance the onsite exposure to students in all the areas of Mechanical Engineering. Career guidance programs and entrepreneurship awareness programs are also carried out. The Department contains well equipped state-of-the-art laboratories. The Department organizes several guest lectures with academicians from IIT's, NIT's etc., and industry legends. Various seminars, conferences and symposiums are organized by the Association of Mechanical Engineering (Mevaliours) at frequent intervals for the benefit of students and faculty members.

## ABOUT THE LOCATION

The college is situated at Manalmedu on Karur to Madurai National Highway (NH7) about 10kms from Karur. For transport assistance, please contact the coordinators.

One Day National Level Technical  
Seminar

On

**“DEVELOPMENTS OF CRYOGENIC  
TECHNOLOGY IN ROCKET PROPULSION:  
AN INTERACTIVE APPROACH”**

**28<sup>th</sup> February 2019**

**Sponsored by**



**Council of Scientific and Industrial Research  
(CSIR)**

Organized by

**DEPARTMENT OF MECHANICAL  
ENGINEERING**

**N.S.N. COLLEGE OF ENGINEERING AND  
TECHNOLOGY**  
(An ISO 9001: 2008 certified Institution)

N.S.N. Kalvi Nagar  
Karur-Madurai National Highways  
Manalmedu, Karur-639003  
Tamilnadu, India  
Phone: 04324-293999  
www.nsn.ac.in

## MOTIVATION AND THEME:

Cryogenic Technology can reduce the system weight for upper stage because of the propulsive efficiency and help increase the payload which translates into economic benefits. But they are complex due to the intricate design, specialised fabrication requirements and high thermal protection required for the cryo propellants. The engine system comprises of Thrust Chamber, Turbopump, Injector Head Assembly, Gas Generator and Nozzle Divergent Assembly. Cryogenic engines employ wide range of materials, need high heat flux management, have high RPM turbo machinery and handle low temperature propellants. Many of the research in the area has taken enormous efforts to develop and demonstrate this technology for the past 2 decades with strategic creative approach to design and analysis, selection of materials, specialised machining and joining technologies, intricate tooling and fixtures, complicated assembly of subsystems, compliance to high quality standards, elaborate testing at subsystems and integrated levels and observance of strict quality control and safety norms. The main objective of the seminar is to learn about Advancements in Rocket Engine Analysis, Challenges, Developments & Advantages of Cryogenic Technology.

## TOPICS

The major topics planned to be covered are

- Cryogenic Technology - Introduction
- Design Challenges & Developments
- Cryocoolers & Storage Systems
- Applications of Cryogenic Systems

## EXPECTED PARTICIPANTS

Researchers from industries, academic and government organizations who work in the broad area of Cryogenic Technology will get benefitted. PG Students and Research scholars are encouraged to participate as they form the future of these organizations.

## REGISTRATION FEE

Registration can be made through DD drawn favour of “**The Principal, N.S.N. College of Engineering and Technology**” payable at Karur.

Participants from the industry and Faculty members: ₹250/-

UG, PG Students and Researcher Scholars : ₹200/-

Spot Registration is also available between 8.30 to 9.30a.m. on 28.02.2019.

## RESOURCE PERSONS

Sessions will be handled by renowned Academicians from reputed institutions as listed below.



**Dr. R. Karunanithi,**  
Professor, Centre for  
Cryogenic Technology,  
IISC, Bangalore.



**Dr. D. S. Nadig,**  
Senior Scientific Officer,  
IISC, Bangalore.



**Dr. R. Anand,**  
Assistant Professor,  
NIT, Trichy.

## ORGANISING COMMITTEE:

<b>PATRONS</b>	<b>-Thiru. P. Selvam</b> Chairman
	<b>Thiru. K. Nallasamy</b> Vice Chairman
	<b>Ar. N. Nallusamy</b> Secretary
<b>CO-PATRON</b>	<b>-Er. T. K. Palaniappan M.E.,</b> Director
<b>CONVENER</b>	<b>-Dr. M. Sivaraja M.E., Ph.D., P.D.,</b> Principal
<b>COORDINATOR</b>	<b>-Dr. P. Gomathi M.E., Ph.D.,</b> Dean

## N.S.N. COLLEGE OF ENGINEERING AND TECHNOLOGY

Karur-Madurai NH-7 Manalmedu, Karur- 639003  
Tamilnadu



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(CSIR)**

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**One Day National Level Technical  
Seminar  
On**

***“Developments of Cryogenic Technology  
in Rocket Propulsion: An Interactive  
Approach”***

**28<sup>th</sup> February 2019**

## REGISTRATION FORM

Name :  
Designation :  
Organization :  
Gender :  
Age :  
Educational Qualifications:  
Address for Communication:  
Telephone No. :  
E-mail ID :  
Experience  
Teaching : .....years  
Others (Specify) : .....years  
DD Details  
DD.No:  
Date:  
Bank Name :  
Place:  
Date:

**Signature of the Applicant**