

The registration fee includes the instructional materials, refreshments between sessions and the working lunch. Accommodation will be provided to the outstation participants on payment basis, subject to the availability within the campus. Separate request is to be submitted in prior, by participants for the accommodation arrangement. TA/DA will not be paid for any participants.

### SELECTION AND MODE OF PAYMENT

Selected candidates will be intimated through Email. They have to remit the necessary course fee to the bank as per the details given below.

Participants from Abroad : US\$ 100

Participants from India:

Industry/ Research Organizations : Rs. 3000/- + GST

Faculty from Academic Institutions : Rs. 2000/- + GST

Research Scholars/Students : Rs. 1000/- + GST

**Account Name** : DIRECTOR NIT CALICUT

**Account No.** : 35909407299

**Bank** : State Bank of India  
CREC, Chathamangalam  
Kozhikode-673601

**Branch Code** : 002207

**IFSC** : SBIN0002207

**MICR Code** : 673002012

**SWIFT Code** : SBINPNBB392

GST @ 18 %. Candidates registering early will be given preference in the short-listing process. For any queries, please contact the coordinators.

### ABOUT GIAN COURSE

MHRD, Govt. of India has launched an innovative program titled “Global Initiative of Academic Networks (GIAN)” in higher education, in order to garner the best international experience. As part of this, internationally renowned academicians and scientists are invited to augment the academic resources of the country and accelerate the pace of quality reforms and elevate India’s scientific and technological capacity to global excellence.

### ABOUT NIT CALICUT

National Institute of Technology is one of the premier technical institutions in India and is located on the Calicut - Mulkam road about 22 kms from Calicut city. The institute is a higher level technical institution of national importance, set up by the NITSER Act 2007. The institution runs on non-profitable basis and is fully funded by the Government of India under the MHRD. NIT Calicut has thirteen departments, six centers and offers under-graduate, post-graduate and Ph.D. programmes under different departments.

### MECHANICAL ENGINEERING DEPARTMENT

The Mechanical Engineering Department is one of the oldest and largest department in NIT Calicut. It is committed to provide an academically strong platform for the aspirants of engineering stream. This department offers two under-graduate and five post-graduate programmes apart from Ph.D. programmes in various diverse specializations. It also offers part time doctoral degree programmes, mainly meant for those employed in industries and academic institutions.

### CONTACT DETAILS

**Dr. S. Jayaraj / Mr. P.V. Manu**

Department of Mechanical Engineering  
National Institute of Technology Calicut  
Calicut - 673 601, Kerala, India

Phone: +91 495 2286416 / 2286429

Mob.: +91 9400487134 / 9447392531

sjayaraj@nitc.ac.in | pvmanu@nitc.ac.in



Government of India  
Ministry of Human Resource Development



## GIAN Course on ADVANCES IN COMBUSTION MODELING

4<sup>th</sup> - 9<sup>th</sup> March 2019

**Call for Registration and Participation**

*International Faculty*

**Prof. Peyman Givi**

**Professor of Mechanical Engineering  
University of Pittsburgh, USA**

*Coordinators*

**Dr. S. Jayaraj and Mr. P. V. Manu**

**Department of Mechanical Engineering  
National Institute of Technology Calicut  
Calicut, Kerala, India**

*GIAN Local Coordinator*

**Dr. Ashok S.**

**Dean (Research & Consultancy)  
National Institute of Technology Calicut  
Calicut, Kerala, India**

*Organised by*

**DEPARTMENT OF MECHANICAL ENGINEERING**

**National Institute of Technology Calicut**

**NIT Campus P.O., Calicut - 673601, Kerala, India**

**www.nitc.ac.in**

## OVERVIEW

The subject of combustion is extremely broad, covering theoretical, experimental and numerical areas. Today's combustion engineers and scientists are often confronted with complex phenomena which depend upon interrelated processes of fluid mechanics, heat and mass transfer, chemical kinetics, thermodynamics and turbulence. Understanding of the fundamental concepts of these coupled processes will provide engineers and scientists with the technical background and training required to solve various combustion problems. With this background, a one-week course on "Advances in Combustion Modeling" is being organized for engineers, managers from industry and personnel from academic and R&D institutions. Increased computational power allows engineers and scientists to simulate detailed reaction mechanisms and transport processes. Attending this course will be of great benefit to the students and teachers by familiarizing themselves with the modeling aspects of combustion and planning long-term research programmes. For working engineers, scientists and researchers, this programme will impart knowledge and capability in the area of combustion modeling which may help them to solve the problems that they are currently facing.

## COURSE CONTENT

- Combustion
- Thermo-Chemistry
- Mass Transfer Analysis
- Chemical Kinetics
- Coupling Chemical and Thermal Analyses of Reacting Systems
- Simplified Conservation Equations for Reacting Flows
- Laminar Premixed and Diffusion Flame Modeling
- Turbulent Flow Modeling
- Turbulent Premixed and Non-premixed Flames
- Supersonic Combustion

## COURSE FACULTY



**Dr. Peyman Givi** is Distinguished Professor of Mechanical Engineering and the James T. MacLeod Professor in Swanson School of Engineering at the University of Pittsburgh. Previously he has held the rank of University Distinguished Professor in Aerospace Engineering at the State University of New York at Buffalo, where he received the Professor of the Year Award by Tau Beta Pi (2002). **Dr. Givi** had received the NASA's Public Service Medal in 2005 and is amongst the first 15 engineering faculty nationwide who received the White House Presidential Faculty Fellowship from President George Bush. He also received the Young Investigator Award of the Office of Naval Research, and the Presidential Young Investigator Award of the National Science Foundation.

**Dr. Givi** is the Deputy Editor of AIAA Journal, member of the editorial boards of Computers & Fluids, Journal of Applied Fluid Mechanics; the Open Aerospace Engineering Journal, an Associate Editor of Journal of Combustion, and a past advisory board member of Progress in Energy and Combustion Science. He received his Ph.D. from the Carnegie Mellon University (PA) and BE (Summa Cum Laude) from the Youngstown State University (OH), where he was named the 2004 Phi Kappa Phi Distinguished Alumnus, and the 2012 STEM College Outstanding Alumnus. **Dr. Givi** has achieved Fellow status in AAAS, AIAA, APS and ASME; and was designated as ASME's Engineer of the Year 2007 in Pittsburgh.

## WHO CAN PARTICIPATE?

Faculty members from academic intuitions in the area of Mechanical and Chemical Engineering and students at all levels (B.Tech./ M.Tech./ Ph.D./ M.Sc.). Executives, engineers and researchers from service and government organization including R&D laboratories. Grade will be awarded based on the performance which will be assessed in a continuous basis.

## HOW TO REGISTER?

### Step # 1: Web Portal Registration:

Visit GIAN Website at the link: <http://www.gian.iitkgp.ac.in/GREGN/index> and create login, User ID, and Password. Fill up the GIAN registration form and do web registration by paying Rs.500/- online through Net Banking/ Debit/ Credit Card as per instructions given there in. This provides the user with life time registration to enroll in any number of GIAN courses offered (Skip this step, if already registered with GIAN portal)

### Step # 2: Course Registration:

Login to the GIAN portal again with the user ID and password already created in Step #1. Click on course registration option at the top of registration form. Select the course titled "Advances in Combustion Modeling" from the list and click on the Save option. Confirm your registration by clicking on the Confirm Course option. The participant may then proceed for the course registration with the course coordinator by filling out the registration form and paying the course registration fee. The course fee should be paid in the form of Draft/NEFT/RTGS. The account details are given below. The duly filled up registration form and the DD/ NEFT/RTGS receipt must be sent to the course coordinator. For provisional registration, scanned copies of the above documents can be sent to [pvmanu@nitc.ac.in](mailto:pvmanu@nitc.ac.in). The DD/Receipt of NEFT/RTGS and the original registration form (hard copy) must reach the coordinator on or before 8<sup>th</sup> February 2019.

## IMPORTANT DATES

Last date for receiving the scan copy of above forms : 1<sup>st</sup> February 2019  
Last date for receiving the hard copy of above forms : 8<sup>th</sup> February 2019  
Intimation to participants : 12<sup>th</sup> February 2019  
Course dates : 4<sup>th</sup> – 9<sup>th</sup> March 2019

Maximum 50 participants are allowed for this course. Selection will be as per the eligibility, and on First-Come-First-Served basis.



# GLOBAL INITIATIVE OF ACADEMIC NETWORKS (GIAN)



Ministry of Human Resource Development  
Government of India



राष्ट्रीय प्रौद्योगिकी संस्थान कलिकट  
NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

## ADVANCES IN COMBUSTION MODELING 4<sup>th</sup> – 9<sup>th</sup> March 2019

### REGISTRATION FORM

Name (In Block Letters) : .....

Designation : .....

Qualification : .....

Institution : .....

Address : .....

Address : .....

Address : .....

Email address : .....

Phone : .....

Accommodation Required : YES/NO

Details of payment of course registration fees :

DD No. : .....

Date : .....

Bank : : .....

Amount Rs : .....

If paid through NEFT : .....

Transaction Number : .....

Date : .....

Bank : .....

Date:  
Place:

Signature of the Candidate