

DEPARTMENT OF ELECTRICAL ENGINEERING  
DELHI TECHNOLOGICAL UNIVERSITY  
(FORMERLY DELHI COLLEGE OF ENGINEERING)  
BAWANA ROAD, DELHI-110042

F.No EED/2017/682

Date: 9/10/17

To,


All Head of Department  
Delhi Technological University

Dear Sir/Madam,

We are pleased to inform that Department of Electrical Engineering, DTU is organizing MHRD sponsored GIAN course on **"Emerging Cutting Edge Technologies in Advanced Electrical Machines and Drives: Design & Performance Issues, Fault Diagnosis, Failure Prognosis and Mitigation"** during **6<sup>th</sup> November 2017 to 10<sup>th</sup> November 2017**". The course will be conducted by **Prof. Elias G Strangas**, a professor in the Department of Electrical and Computer Engineering, Michigan State University, East Lansing, USA, an eminent personality in the field of Design and Control of Electrical Machines and Drives. It is requested to circulate it widely and send participation from your department.

All the interested faculty members, research scholars, graduate and under graduate students are invited to attend this course. A copy of course brochure is enclosed for reference.

  
(Prof. Madhusudan Singh)  
Course Coordinator/Local Coordinator, GIAN

  
(Dr. Mini Sreejeth )  
Course Coordinator, GIAN

Copy to:

1. PS to the Hon'ble VC for kind information to the Hon'ble Vice Chancellor, DTU
2. PA to PVC-I for kind information to the Hon'ble PVC I.
3. PA to PVC-II for kind information to the Hon'ble PVC II.
4. Registrar, DTU
5. All Deans
6. Head, Computer center with a request to upload the brochure of GIAN course in the website of DTU.
7. Chief Warden with a request to circulate among hostel inmates
8. Circular File.

# A GIAN Course on Emerging Cutting-Edge Technologies in Advanced Electrical Machines and Drives: Design & Performance Issues, Fault Diagnosis, Failure Prognosis and Mitigation

November 6<sup>th</sup>-10<sup>th</sup>, 2017



Sponsored by : **MHRD, Govt. of India**

Organized By

**Department of Electrical Engineering  
Delhi Technological University**

Shahbad Daultpur, Bawana Road, Delhi-110042, Website: [www.dtu.ac.in](http://www.dtu.ac.in)

PATRON

**Prof. Yogesh Singh**

Vice Chancellor, DTU

LOCAL COORDINATOR GIAN-DTU

**Prof. Madhusudan Singh**

Dean Academics (UG)

Head Electrical Engineering, DTU

COURSE COORDINATOR

**Dr. Mini Sreejeth**

Associate Professor

## About Speaker:



**Prof. Elias G. Strangas** (M'80) received the Dipl.Eng. degree in electrical engineering from the National Technical University of Greece, Athens, Greece, in 1975, Master of Science in 1977 and the Ph.D. degree in 1980 from the University of Pittsburgh, Pittsburgh, PA. He was with Schneider Electric, Athens, from 1981 to 1983 and the University of

Missouri, Rolla, from 1983 to 1986. Presently he is Professor at **Department of Electrical and Computer Engineering, Michigan State University**, East Lansing since 1986 where he heads the Machines and Drives Laboratory. His research interests include the design and control of electrical machines and drives, finite-element methods for electromagnetics, and the fault prognosis and mitigation of electrical drive systems, drive system reliability; electric and hybrid power train analysis. He has published more than 120 refereed papers in prestigious journals and conferences and has published six books/ reports. He also holds 2 issued patents. In 2015, he received the prestigious Fulbright Fellowship, Technical University Graz, Austria, and IEEE Diagnostics Achievement Award.

## Course Contents:

- Analysis and design of electrical machines and drives, power electronics and electromechanical systems.
- Overload considerations for design and operation.
- Motor parameter variations as a function of frequency and saturation.
- Iron and magnet losses and torque calculation using magnetic equivalent circuit.
- Drives for electric and hybrid vehicles, thermal analysis of permanent magnet motor for electric vehicle applications.
- Evaluation of parameter identification method for permanent magnet ac machines.
- Review of diagnostic techniques and trends in fault diagnosis for electrical machines.
- Effect of failure prognosis and mitigation on the reliability of motor drives.
- Research directions in the analysis of productive life of inverter-based drive.
- New trend in the design of power electronics interfaces and electromechanical systems for applications in hybrid vehicles for meeting sustainable energy requirements.

## Registration Process and Fee

Overseas Participants : US\$ 200 Participants from Academic Institutions : Rs. 2000 (Rs. 1000 for SC/ST participants)  
Industry/ Research Organizations : Rs. 5000 Research Scholars/Students/Alumni : Rs. 1000 (Rs. 500 for SC/ST participants)

After registration on GIAN portal <http://www.gian.iitkgp.ac.in/GREGN/index>, the candidates are advised to submit the prescribed fee in the form of DD in favor of "Registrar, DTU" payable at Delhi along with printout of online submitted application form to Dr. Mini Sreejeth, Course Coordinator (GIAN), Department of Electrical Engineering, Delhi Technological University, Bawana Road, Delhi-110042 on or before 29.10.2017. The shortlisted participants will be informed through e-mail.

The above fee includes all instructional materials, computer use for tutorials and assignments and laboratory equipment usage charges. The course fee does not include boarding and lodging. The paid hostel/guest house accommodation may be provided on first come first serve basis with prior request.

## Who can attend ?

Faculty, Research Scholars, M.Tech. Students, B.Tech. Students, Practicing Engineers from Industry, utilities may attend this course.

**Course Coordinator:**

**Prof. Madhusudan Singh**

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**Coordinator:**

**Dr. Mini Sreejeth**

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