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

November 6th-10th, 2017

GIAN — GLOBAL INITIATIVE OF ACADEMIC NETWORKS

MHRD Govt. of India — सत्यमेव जयते

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Organized By

Department of Electrical Engineering
Delhi Technological University

Shahbad Daulatpur, Bawana Road, Delhi-110042, Website: www.dtu.ac.in

PATRON	LOCAL COORDINATOR GIAN-DTU	COURSE COORDINATOR
Prof. Yogesh Singh	**Prof. Madhusudan Singh**	**Dr. Mini Sreejeth**
Vice Chancellor, DTU	Dean Academics (UG) Head Electrical Engineering, DTU	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 pristigious 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.

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