Registration:
Mode#1: Demand draft in favor of Director VNIT Nagpur, payable at Nagpur
Mode#2: Electronic Payment (NEFT)
  Name of the Beneficiary: Director, VNIT
  Name of Bank: State Bank of India
  Branch Name: VRCE Branch, Nagpur
  Branch Code: 06702
  Beneficiary Account No. 10259420288
  Bank MICR Code: 440002005
  Bank IFSC: SBIN0006702

Note:
For NEFT transfers mail scanned copy of receipt. Preferable mode of Payment is Demand Draft.

For the confirmation of registration, the proof of payment (a scanned copy of the Demand Draft/ NEFT transaction Details) along with the registration form and Copy of PDF generated at GIAN portal are to be sent to gianvnit18@gmail.com

Registration fee:
- Participants from abroad: US $300
- Professionals from Industry & R&D Units: Rs. 7000/-
- Students and full time research scholars: : Rs. 2000/- (For SC/ST students course fee is Rs. 1000/- only)
- Academicians/Faculty : Rs. 5000/-

Important dates:
- Last date for registration: 31st January, 2018
  [Complete application should be sent to the coordinator by this date]
- Selection intimation to the applicant: 1st, February 2018

Boarding and lodging
Accommodation can be arranged in the Institute Guest House subject to availability and on twin sharing basis per person per day @Rs.600/-

Patron
DR. N. S. CHAUDHARI,
Director, VNIT, Nagpur

Local GIAN Coordinator
Prof. K. M. BHURCHANDI,
ECE, VNIT, Nagpur

Advisor
Prof. M. K. KHEDKAR, Prof. & HOD, EED, VNIT, Nagpur

Program coordinators:
Prof. M. V. AWARE,
Electrical Engineering Department, VNIT, Nagpur
Dr. ANJALI JUNGHARE,
Electrical Engineering Department, VNIT, Nagpur

FOR MORE INFORMATION CONTACT PERSON:
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The course will commence with an introduction to the types of multiphase machines, principles of multiphase machine modelling, vector control, and multiphase voltage source inverter PWM schemes. ‘Classical’ (i.e. older) uses of additional degrees of freedom will be addressed next, including the multi-motor multiphase series-connected drive systems with reduced-switch-count inverter supply, use of the additional degrees of freedom for the purposes of achieving fault-tolerant operation, and torque enhancement or torque ripple smoothing by low order stator current harmonic injection. Next, more recent applications of the additional degrees of freedom will be considered. This encompasses capacitor voltage balancing in machines with multiple three-phase windings and multiple three-phase converters connected in series, realisation of fully integrated on-board fast (three-phase) and slow (single-phase) battery charging systems in electric vehicles, a braking method for induction motor drives with diode front-end rectifier, and stator winding temperature estimation. Basic concepts will be explained and illustrative examples will be provided throughout.

Course Objectives

- Revealing to the field of multi-phase motor drives.
- Application of PWM techniques for multi-phase drives.
- Highlighting various key issues in fault tolerant operation of multi-phase drives.
- Providing exposure to the practical problems and their solutions, through case studies and projects in electrical drives.
- Introduction to fully integrated on-board battery chargers.

Course Highlights

- Multiphase machine modelling
- Vector control of multiphase IM and PMSM
- PWM control of 2-level VSI
- PWM control of multiphase 2-level VSI
- Multi-motor series connected multiphase drive
- Torque enhancement using additional DOF in machines
- Fault tolerant operation in multiphase machines
- Multiphase generation systems in series connected VSI
- Fully integrated on-board battery chargers
- Novel application of additional DOF

Who Can Attend?

If you are a student (B.Tech/M.Sc./M.Tech/Ph.D.) and aspiring researcher within broad domain of Electrical engineering,
If you are an Executive/engineer or researcher from manufacturing, service and Government organizations including R&D laboratories,
If you are Faculty and staff from reputed academic/technical institutions.

About the Institute

Viveksvaraya National Institute of Technology, Nagpur is one of the thirty one National Institutes of Technology in the country. The Government of India by Act of Parliament (National Institutes of Technology Act, 2007 (29 of 2007)) declared VNIT Nagpur as an Institute of National Importance along with other NITs. The Institute was established in the year 1960 as Regional College of Engineering. In 1962, the Governing Board of the College resolved to name it after the eminent engineer, planner, and statesman of the country Sir Mokshagundam Visvesvaraya. The Institute offers eight B.Tech, one B. Arch, sixteen M.Tech, three M.Sc, and Ph. D. programs in various disciplines of Engineering, Architecture, Science, Humanities and Social Science.

About the Department of Electrical Engineering

The Electrical Engineering department was established in 1960 with a UG (B. Tech) program in Electrical Engineering and PG (M. Tech) program with specialization in ‘Integrated Power System’ and ‘Power Electronics and Drives’. The Department also offers Ph.D in all areas of Electrical Engineering. The Department is recognized as QIP Centre for M.Tech and Ph.D. programs.

Co-ordinators - GAAN senate, NAGALA Zetala

Dr. Aware is a Commonwealth Academic Fellow.

Dr. Anjali S. Junghare received the B.E. and M.Tech degree from Visvesvaraya Regional College of Engineering (VRCE), Nagpur, India, in 1981 and 1985, respectively. She received the Ph.D. degree from VRCE in 2007. She is currently an associate professor in the Department of Electrical Engineering, Visvesvaraya National Institute of Technology, Nagpur, India. She has 13 years of industrial experience and 19 years of academic experience in different journals and conference proceedings. His current research interests include electrical drives, distributed generation, energy storage systems, and power electronics. Her research areas are control system, fractional order controllers, fuzzy logic and its applications. She is having more than 30 papers in international conferences and journals.