

Power Generation Technology

04 November 2019

Aula Magna Antonio Lepschy

Program:

- h.9.00 prof. Nicola Bianchi
Welcome and introduction
- h.9.15 prof. Vassilios G. Agelidis
Technical University of Denmark, (DK)
“Power Electronics Technologies for
Utility Scale Battery Energy Storage”
IEEE Power Electronics Society Distinguished Lecturer
- h.10.15 prof. Jose Antonino Daviu
Universidad Politécnica de Valencia, (E)
“Condition monitoring and fault
diagnosis of electric machines”
IEEE Industry Application Society Distinguished Lecturer

**THE WORKSHOP
PARTECIPATION
IS OPEN TO ALL
STUDENTS AND
RESEARCHERS
INTERESTED IN
THE ELECTRIC
POWER
GENERATION
AND STORAGE**

LOCAL ORGANASERS

**Prof. N. Bianchi
Prof. S. Bolognani**

**Dept. of Industrial
Engineering
University of Padova
Italy**

Dr. Eng. F. Tinazzi

**Dept. of Management
and Engineering
University of Padova
Italy**

 **IEEE** IAS/IES/PELS NORTH ITALY JOINT CHAPTER

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Description of the workshop

The workshop is open (free of charge) to all master students, PhD students and researchers working on topics dealing with the electric power generation. The two important presenters are IEEE Distinguished Lecturers and will present the most recent research in two topics, such as the usage of battery energy storage and the condition monitoring and fault diagnosis in electric motors.

prof. Vassilios G. Agelidis

Title of the presentation

Power Electronics Technologies for Utility Scale Battery Energy Storage

Outline of the presentation:

- ability of utility-scale battery energy storage systems (BESS) to provide grid support
- ability of utility-scale battery energy storage systems to smooth the output of renewable energy sources
- power electronics technologies for utility BESS

Biography

Vassilios G. Agelidis (S'89–M'91–SM'00–F'16) was born in Serres, Greece. He received the B.Eng. degree in electrical engineering from the Democritus University of Thrace, Thrace, Greece, in 1988, the M.S. degree in applied science from Concordia University, Montreal, QC, Canada, in 1992, and the Ph.D. degree in electrical engineering from Curtin University, Perth, Australia, in 1997. He worked at Curtin University (1993–1999), University of Glasgow, U.K. (2000–2004), Murdoch University, Perth, Australia (2005–2006), the University of Sydney, (2007–2010), and the University of New South Wales (UNSW), Sydney, Australia (2010–2016). He is currently a Professor at the Department of Electrical Engineering, Technical University of Denmark, Lyngby, Denmark. Dr. Agelidis was the recipient of the Advanced Research Fellowship from the U.K.'s Engineering and Physical Sciences Research Council in 2004. He was the Vice-President Operations within the IEEE Power Electronics Society from 2006 to 2007. He was an AdCom Member of the IEEE Power Electronics Society from 2007 to 2009 and the Technical Chair of the 39th IEEE Power Electronics Specialists Conference, Rhodes, Greece, 2008.

prof. Jose Antonino Daviu

Title of the presentation

Condition monitoring and fault diagnosis of electric machines

Contents of the presentation:

- provide an overview of the different signal processing techniques that are being currently used in the electric motor condition monitoring field
- provide real case stories in which the use of wavelet transforms, Hilbert-Huang transforms, Wigner-Ville and Choi-Williams Distributions, etc. was critical to reach a correct conclusion on the motor condition.
- The lecture will detail the bases of each particular technique and will provide real case stories in which the use of these transforms was critical to reach a correct conclusion on the motor condition.

Biography

Jose A. Antonino-Daviu (S'04–M'08–SM'12) received the M.S. and Ph.D. degrees in electrical engineering from the Universitat Politècnica de València, Valencia, Spain, in 2000 and 2006, respectively, and the B.S. degree in business administration from the Universitat de Valencia, Valencia, in 2012. He was with IBM for two years, being involved in several international projects. He is currently an Associate Professor with the Department of Electrical Engineering of the mentioned university, where he develops his docent and research work. He was an Invited Professor with the Helsinki University of Technology, Finland, in 2005 and 2007, Michigan State University, USA, in 2010, Korea University, South Korea, in 2014, and the Université Claude Bernard Lyon 1, France, in 2015. He has authored or coauthored more than 170 contributions, including international journals, conferences, and books. Dr. Antonino-Daviu is an Associate Editor for IEEE Transactions on Industrial Informatics and IEEE Industry Applications Society Distinguished Lecturer for 2019–2020. He has been the Guest Editor for IEEE Transactions on Industrial Electronics. He was the General Co-Chair of IEEE International Symposium on Diagnostics for Electric Machines, Power Electronics and Drives 2013. He was recipient of the Nagamori Award from Nagamori Foundation, Kyoto, Japan, in 2018, for his contributions in electric motors transient analysis area.