





CENTER FOR POWER ELECTRONICS AND DRIVES

## Avviso di Seminario

**Giovedì 14 Dicembre 2017 ore 09.30** - Aula B7 Edificio Didattica – il **Prof. Alessandro Lidozzi** (Center for Power Electronics and Drives ROMA TRE University) terrà un seminario sul tema:

## Graphical Toolchains for Power Electronics and Drives Control

Abstract: Modern applications of power electronics and drives have to process both POWER and DATA flows. This implies that the control platform should have a DSP or a microprocessor to manage the DATA related tasks, whereas a FPGA can account for the whole control of the power converters. Such an architecture requires high-skilled programmers able to use a combination of totally different development environments, resulting in an increased timeto-market. From both educational and industrial point of view, the graphical (G-) programming approach is straightforward and simple to be learned. The talk focuses on the description and the application of a novel hardware/software integrated approach for controlling Power Electronic Converters and Electrical Drives Systems through the use of LabVIEW FPGA.

## Brief Biography

Alessandro Lidozzi graduated in 2003 in Electronic Engineering at the ROMA TRE University and in 2007 he received the PhD degree in Mechanical and Industrial Engineering. In 2005-2006 he was Visiting Scholar at the Center for Power Electronics Systems, Blacksburg, Virginia (USA). He is currently Senior (type B) Researcher in Power Electronics and Drives with the ROMA TRE University, Department of Engineering, where he teaches Electrical Energetics and Electronic Systems for Mechanical Engineering. He authored more than 80 scientific papers dealing with the development of vector control algorithms for permanent magnets synchronous machines and with experimental studies of innovative control configurations and architectures for electric drives intended for variable speed generating systems for hybrid propulsion and distributed generation in smart grids. He is the principal investigator of the PED-Board® project (www.ped-board.com), aiming at the design of a specific control board for power electronics and drives applications.

## Additional information

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