PhD School courses available in January 2016

**COMPUTATIONAL FLUID DYNAMICS WITH OPEN-SOURCE SOFTWARE**  
Prof. Lucchini Tommaso  
The open-source CFD code OpenFOAM is now widely applied both for advances research and industrial purposes. This course intends to provide to the students a deep knowledge of the code structure and capability to implement new models and solvers related to their PhD projects.

The course will start on 15 January 2016

**DESIGN FOR SOCIAL INNOVATION**  
Prof. Meroni Anna  
Goal of the course is farming an opinion and activating the critical reflection of the participants about Social Innovation and its recognised potential to transform the society as a whole, by presenting and debating the most contemporary theories, cases studies, research projects and emerging issues related to the subject.

The course will start on 27 January 2016

**FUNCTIONAL ANALYSIS AND PARTIAL DIFFERENTIAL EQUATIONS**  
Prof. Di Cristo Michele  
Many of the partial differential equations, interesting in applications, do not, in general, posses smooth solutions. It is therefore essential to devise some kind of proper notion of solution. The purpose of this course is to illustrate modern techniques to solve differential equations.

The course will start on January 2016

**HIGH PERFORMANCE COMPUTING IN MULTIBODY DYNAMICS**  
Prof. Masarati Pierangelo  
Present foundations and state of the art in research on multibody system dynamics, and its applications to various fields of engineering.

The course will start on 18 January 2016

**PHYSICAL METHODS FOR CULTURAL HERITAGE**  
Prof. Valentini Gianluca  
The conservation of works of art requires advanced diagnostic investigation. The course is intended to provide an introduction to the most important physical techniques used in the field.

The course will start on January 2016
QUANTITATIVE ANALYSIS OF VERY-LARGE SYSTEMS: METRICS, MODELS, TECHNIQUES, METHODOLOGIES AND TOOLS

Prof. Distefano Salvatore

Distributed systems are usually a melting-pot of heterogeneous technologies and processes (computing, networking, manufacturing, economics, marketing, biological, etc.) involving complex interactions (dependencies, influences, etc.). Both functional and non-functional aspects are key issues to address during the whole system/product/process lifecycle, at design-time, at runtime, at testing-maintenance, calling for adequate methodologies and techniques for their evaluation.

The course will start on 28 January 2016

The detailed programme of each course is available from the PhD School web site at http://www.dottorato.polimi.it/carriera-dottorandi/insegnamenti-di-livello-dottorale/

Classroom and the course start date will be specified in the notes of the online detailed programme.

Registrations for PoliMi PhD candidates can be done by selecting the course on their study plan. Other researchers and external auditors should contact the professor responsible for the course.