**Scuola di Dottorato del Politecnico di Bari**

# Ph.D. School

**Applications of MATLAB**

**CFU: 3 (24 ore)**

**SSD: ING-INF/04**

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| **Goal** | The course shall address the various functionalities of MATLAB with applications to engineering. The course participants will be able by the end of the course to use MATLAB autonomously.Each lesson shall consist in lecture and numerical examples. |
| **Program** | Environment of the MATLAB SoftwarePredefined functionsWorking with matricesGraphical functionsFunctions defined by the userInputs and outputs controlled by the userControl structures and logical functionsSymbolic mathModeling and simulation in Simulink. |
| **References** | M. Dotoli, M.P. Fanti, MATLAB – Guida al laboratorio di automatica, 448 pp., CittàStudi Edizioni, Grugliasco (TO), ISBN 978-88-251-7325-3, 2008, <http://www.cittastudi.it/catalogo/scienze/matlab-3231/autori>William J. Palm, Introduction to MATLAB for Engineers, McGraw-Hill, ISBN 978-0073534879, 2011, http://www.mheducation.com/highered/product.M0073534870.htmlSlides and supporting material from lecturer. |