

**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 Software  Predefined functions  Working with matrices  Graphical functions  Functions defined by the user  Inputs and outputs controlled by the user  Control structures and logical functions  Symbolic math  Modeling 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.html  Slides and supporting material from lecturer. |