

Corsi approvati per l'A.A. 2023-2024

Course Name	SSD	Instructor(s)	Affiliation(s) and Email address	# of hours	PhD Board contact person
Nanofabrication technologies and tools for 1D&2D-material based devices	ELE	Dr.ssa Elisabetta Dimaggio	DII, Università di Pisa elisabetta.dimaggio@unipi.it	16	Giovanni Pennelli giovanni.pennelli@unipi.it
Nonlinear dynamical systems and complexity	BIO, AUT	Prof. Claudio Bonanno	Dipartimento di Matematica, Università di Pisa claudio.bonanno@unipi.it	20	Gaetano Valenza gaetano.valenza@unipi.it
Iterative Learning Control Theory & Applications - An Alternative Approach to Exploit Data while Providing Formal Certificates	AUT	Prof. Manolo Garabini, Dr. Franco Angelini, Dr. Michele Pierallini	Research Center "E. Piaggio" University of Pisa manolo.garabini@unipi.it	24	Manolo Garabini manolo.garabini@unipi.it
Challenges in Modern Web Search	INF, TLC	Prof. Franco Maria Nardini, Dr. Salvatore Trani	ISTI-CNR - Pisa francomaria.nardini@isti.cnr.it salvatore.trani@isti.cnr.it	16	Giuseppe Amato giuseppe.amato@isti.cnr.it
Multivariate signal processing and complexity analysis in time-varying networks	INF, TLC	Prof. Paolo Paradisi	ISTI-CNR - Pisa paolo.paradisi@cnr.it	20	Giuseppe Amato giuseppe.amato@isti.cnr.it
Human-centred Automations in Smart Daily Environments	INF, AUT	Dr. Fabio Paternò	ISTI-CNR - Pisa fabio.paterno@isti.cnr.it	16	Giuseppe Amato giuseppe.amato@isti.cnr.it
Additive manufacturing on non-planar surfaces: operating workflow from surface scanning to 3D printing	BIO, ELE	Dr. Gabriele Maria Fortunato	DII, Università di Pisa gabriele.fortunato@unipi.it	24	Carmelo De Maria carmelo.demaria@unipi.it
Principles of Cybersecurity and the Role of Hardware in Security	ELE, INF, TLC	Dr. Luca Crocetti	DII, Università di Pisa luca.crocetti@unipi.it	16	Roberto Saletti roberto.saletti@unipi.it

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Course Name	SSD	Instructor(s)	Affiliation(s) and Email address	# of hours	PhD Board contact person
Advanced Topics in Deep Learning: the rise of Transformers in sequence and image modeling	INF, TLC, AUT, ELE, BIO	Dr. Federico Galatolo	DII, Università di Pisa federico.galatolo@unipi.it	20	Mario G.C.A. Cimino mario.cimino@unipi.it
Applied statistics for research in Engineering	BIO, TLC, AUT, INF, ELE	Dr. Vincenzo Catrambone	DII, Università di Pisa vincenzo.catrambone@unipi.it	20	Gaetano Valenza gaetano.valenza@unipi.it
Geometric Deep Learning for Engineering Applications	INF, TLC, AUT	Prof. Giovanni Trappolini	Università di Roma Sapienza trappolini@diag.uniroma1.it	20	Nicola Tonello nicola.tonello@unipi.it
Block-chain for Distributed Applications	INF, TLC	Dr. Morichetta Andrea	University of Camerino andrea.morichetta@unicam.it	16	Alessio Bechini alessio.bechini@unipi.it
Virtual Reality: Theory and Practice	BIO, INF, AUT	Prof. Giuseppe Turini	Computer Science Dept. – Kettering University – Flint (Michigan, USA) gturini@kettering.edu	20	Vincenzo Ferrari vincenzo.ferrari@unipi.it
Verification and Validation of User Interface Software in Safety-Critical Systems	INF, TLC, AUT, BIO	Dr. Paolo Masci	NASA Langley Research Center (NASA LaRC) and Analytical Mechanics Associates (AMA), USA paolo.masci@ama-inc.com paolo.m.masci@nasa.gov	20	Cinzia Bernardeschi cinzia.bernardeschi@unipi.it
Practical Cellular Network (3G/4G/5G) Security and Attacks	TLC, INF	Prof. Ravishankar Borgaonkar	SINTEF AS & University of Stavanger, Norway Ravi.Borgaonkar@sintef.no	20	Rosario Garroppo rosario.garroppo@unipi.it
Time-Variant and Non-Linear Transponders: from Theory to Practice	EM, TLC, ELE	Prof. Nicolas Barbot	Univ. Grenoble Alpes, Grenoble INP, France nicolas.barbot@lcis.grenoble-inp.fr	16	Paolo Nepa paolo.nepa@unipi.it
Spacecraft environmental testing: methodologies and technologies	INF, TLC	Dr. Gianluca Casarosa, Dr. Matteo Appolloni	European Space Agency, The Netherlands Gianluca.casarosa@esa.int Matteo.Appolloni@esa.int	16	Luca Fanucci luca.fanucci@unipi.it

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Course Name	SSD	Instructor(s)	Affiliation(s) and Email address	# of hours	PhD Board contact person
Crash course on modeling and control of continuum soft robotics	AUT	Prof. Cosimo Della Santina	TU Delft, Delft, The Netherlands Robotics and Mechatronics Institute, German Aerospace Center, Wessling, Germany c.dellasantina@tudelft.nl	16	Antonio Bicchi antonio.bicchi@unipi.it
Online optimization, reinforcement learning and their applications	TLC, INF, AUT, BIO	Prof. E. Veronica Belmaga	Université Gustave Eiffel (UGE), CNRS, LIGM, France veronica.belmega@esiee.fr	16	Giacomo Bacci Giacomo.bacci@unipi.it
Numerical methods and Simulation Techniques for RF System Design	EM, ELE	Prof. Etienne Perret	Univ. Grenoble Alpes, Grenoble INP, France Etienne.Perret@grenoble-inp.fr	16	Filippo Costa filippo.costa@unipi.it
Design and measurement techniques for microwave array antennas for both Near-Field and Far-Field specifications	EM, ELE, TLC	Prof. Marcos Rodriguez Pino	Universidad de Oviedo, Spain mpino@uniovi.es	16	Paolo Nepa paolo.nepa@unipi.it
6G and Next G: Experience Innovation in XV	TBC	Prof. Martin Maier	Institut National de la Recherche Scientifique (INRS), Montreal, QC, Canada martin.maier@inrs.ca	20 (+5 esami)	Stefano Giordano stefano.giordano@unipi.it
Silicon Nanotechnology	ELE	Prof. M. J. Sailor	Univ. of California San Diego, USA msailor@ucsd.edu	20	Giuseppe Barillaro giuseppe.barillaro@unipi.it
From Design to Deployment of Machine Learning Technology: An Environment of Granular Computing	INF	Prof. Witold Pedrycz	University of Alberta, Canada wpedrycz@ualberta.ca	20	Francesco Marcelloni francesco.marcelloni@unipi.it