

Curriculum Embedded Systems

PhD in EDT 2019/20

modified and approved on 30/04/2020 (TeCIP Institute Council)

TEACHER/S	TITLE	Hours	CFU
Dr.ssa Colla/Dr. Vannucci	Machine Learning*	30	3
Prof. Buttazzo	How to do Research	30	3
Dr. Biondi	System-level Cyber-security	20	2
Prof. Abeni	Virtualization Technologies	20	2
Prof. Abeni	Safe System Programming	20	2
Prof. Di Natale	Automotive SW systems	30	3
Dr. Marinoni	Real-Time Software Development	10	1
Prof. Cucinotta	Cloud Computing & Big-Data	30	3
Prof. Cucinotta	Advances in Cloud Computing & Big-Data Lab	15	1

* course to be activated only with the participation of minimum 3 PhD students

Curriculum Perceptual Robotics
 PhD in EDT 2019-20
 modified and approved on 30/04/2020 (TeCIP Institute Council)

TEACHER/S	TITLE	Hours	CFU
Dr. Carrozzino/Dr. Tecchia	Virtual and Augmented Reality	60	6
Dr. Vannucci	Machine learning fundamentals, algorithms and applications through Python	20	2
Dr. Avizzano/Dr. Filippeschi	Mechatronics*	60	6
Dr Avizzano	Digital Perception*	45	4
Dr. Filippeschi	Human Motion Modeling and Analysis	30	3
Dr. Solazzi/Dr. Filippeschi	Introduction to 3D geometric modelling	20	2
Dr. Avizzano*/Prof. Bergamasco/Prof. Frisoli/Dr. Solazzi/Dr. Tecchia/Dr. Carrozzino/Dr. Satler/Dr. Filippeschi	Lab of Perceptual Robotics*	20	2
Prof. Frisoli	Principles on nonlinear elasticity	10	1
Prof. Frisoli/ Dr. Solazzi	Laboratorio di trasduttori ed attuatori per la robotica	50	5
Prof. Frisoli/Dr. Solazzi	Fundamentals of Robotics and Human Machine Interfaces	30	3

* course to be activated only with the participation of minimum 3 PhD students

Curriculum Photonic Technologies
 PhD in EDT 2019-20
 modified and approved on 30/04/2020 (TeCIP Institute Council)

TEACHER/S	TITLE	Hours	CFU
Dr. Andriolli/Dr. Faralli	Photonic Integrated Circuits	30	3
Prof.ssa Bogoni	Photonics Laboratory for Telecommunications	30	3
Prof.ssa Bogoni	Microwave Photonics	30	3
Dr. Malacarne	Lab of Photonic Switching - First Part	30	3
TBD	Lab of Photonic Switching - Second Part	30	3
Prof. Forestieri	Simulation techniques for digital communication systems	36	3
Prof. Forestieri	Communication theory and digital transmission	40	4
Dr. Oton / Dr. Faralli	Lab of Photonic Sensing and Components	40	4
Prof. Valcarenghi	Network Simulations	30	3
TBD	FPGA for Communications Network Prototyping: A Primer	20	2
Dr. Giorgetti	Lab of Network Software	30	3
Dr. Sambo	Advanced optical networking	30	3
Prof. Contestabile/Dr. Porzi	Photonic Technologies	30	3
Dr. Presi/Dr. Cossu	Lab of Photonic Systems	30	3
Prof. Ciaramella	Design of Optical Systems	30	3
Dr. Secondini	Fundamentals of optical communications	30	3
Prof. Castoldi	Communication Networks and Security	60	6
TBD	Monte Carlo simulation techniques	30	3
Prof. Sorel	Optoelectronic devices for metrology	30	3
Dr. Paolucci	Laboratory of Traffic Engineering	30	3
Dr. Pagano	Wireless Communication Networks	30	3
Dr. Romagnoli	Photonic Integrated Technologies	30	3
Prof. Castoldi	Stochastic Processes	30	3
Prof. Arismar Cerqueira	5G Optical-Wireless Technologies	12	1
Prof.ssa Donzella	Automotive Optical Sensors	12	1