PERCORSO FORMATIVO E–PiCo (Electric Vehicle Propulsion and Control)

Percorsi di mobilità proposti

L'Aquila (primo semestre del primo anno)
L'Aquila (secondo semestre del primo anno)
Nantes (primo semestre del secondo anno)
Nantes/L'Aquila/Bucarest/Kiel (secondo semestre del secondo anno)

I ANNO – 60 C.F.U.

CODICE	DENOMINAZIONE INSEGNAMENTO	CFU	SEM.	S.S.D.	TIP.
DT0692	Control of Energy Systems	6	I	ING-INF/04 ING-IND/32	B/C
DT0695	Systems Modelling and Simulation	6	I	ING-INF/04	B
DT0698	Embedded Systems	6	I	ING-INF/05	B
DT0690	Fundamentals of Partial Differential Equations and Numerical Methods	6	I	MAT/08 MAT/05	C/D
DT0691	Fundamentals of Energy Systems	6	I	ING-IND/32	C
DT0583	Nonlinear Control Systems	5	II	ING-INF/04	B
DT0445	Hybrid Systems Control and Simulation	5	II	ING-INF/04	B
DT0586	Power Electronics Converters	5	II	ING-IND/32	C
DT0558	Electrical Machines	5	II	ING-IND/32	C
DT0694	Renewable Energy and Storage Systems	5	II	ING-IND/32	C/D
DT0693	Instrumentation for Control of Energy Systems	5	II	ING-INF/04	D

II ANNO – 60 C.F.U.

CODICE	DENOMINAZIONE INSEGNAMENTO	CFU	SEM.	S.S.D.	TIP.
DT0561	Control of Power Converters for Electric Propulsion System	5	I	ING-INF/04	B
DT0562	Advanced Control of Electric Propulsion Systems	5	I	ING-INF/04	B
DT0563	Project: Simulation and Control of Propulsion System of Electric Vehicle	5	I	ING-INF/04	B
DT0564	Observation and Diagnosis, Application for Electrical Systems	5	I	ING-INF/05	B
DT0565	Case Study Application Dedicated Electric Vehicle Topology	5	I	ING-INF/05 MAT/09	B/C
DT0566	Optimization, Application to Energy Management of Electric Vehicle Charging	5	I	MAT/09	C
F1197	Altre attività	3	II		F
DT0197	Further Training and Internship	9	II		F
	Master's Thesis	18	II		E

L'Aquila (primo semestre del primo anno)
L'Aquila (secondo semestre del primo anno)
Bucarest (primo semestre del secondo anno)
Nantes/L'Aquila/Bucarest/Kiel (secondo semestre del secondo anno)

I ANNO – 60 C.F.U.

CODICE	DENOMINAZIONE INSEGNAMENTO	CFU	SEM.	S.S.D.	TIP.
DT0692	Control of Energy Systems	6	I	ING-INF/04 ING-IND/32	B/C
DT0695	Systems Modelling and Simulation	6	I	ING-INF/04	B
DT0698	Embedded Systems	6	I	ING-INF/05	B
DT0690	Fundamentals of Partial Differential Equations and Numerical Methods	6	I	MAT/08 MAT/05	C/D
DT0691	Fundamentals of Energy Systems	6	I	ING-IND/32	C
DT0583	Nonlinear Control Systems	5	II	ING-INF/04	B
DT0445	Hybrid Systems Control and Simulation	5	II	ING-INF/04	B
DT0586	Power Electronics Converters	5	II	ING-IND/32	C
DT0558	Electrical Machines	5	II	ING-IND/32	C
DT0694	Renewable Energy and Storage Systems	5	II	ING-IND/32	C/D
DT0693	Instrumentation for Control of Energy Systems	5	II	ING-INF/04	D

II ANNO – 60 C.F.U.

CODICE	DENOMINAZIONE INSEGNAMENTO	CFU	SEM.	S.S.D.	Tip.
DT0567	Sensorless Control of Electric Machine	6	I	ING-INF/04	B
DT0568	Battery Chargers for Electric Vehicle	6	I	ING-INF/04	B
DT0569	Battery Management Systems and Battery Life Cycle	6	I	ING-INF/04 ING-INF/05	B
DT0570	Microprocessor Applications for Real Time Systems	6	I	ING-INF/05	B
DT0571	Energy Storage Requirement for EV	6	I	MAT/09	C
F1197	Altre attività	3	II		F
DT0197	Further Training and Internship	9	II		F
	Master's Thesis	18	II		E

L'Aquila (primo semestre del primo anno)
L'Aquila (secondo semestre del primo anno)
Kiel – Specializzazione Control (primo semestre del secondo anno)
Nantes/L'Aquila/Bucarest/Kiel (secondo semestre del secondo anno)

I ANNO – 60 C.F.U.

CODICE	DENOMINAZIONE INSEGNAMENTO	CFU	SEM.	S.S.D.	TIP.
DT0692	Control of Energy Systems	6	I	ING-INF/04 ING-IND/32	B/C
DT0695	Systems Modelling and Simulation	6	I	ING-INF/04	B
DT0698	Embedded Systems	6	I	ING-INF/05	B
DT0690	Fundamentals of Partial Differential Equations and Numerical Methods	6	I	MAT/08 MAT/05	C/D
DT0691	Fundamentals of Energy Systems	6	I	ING-IND/32	C
DT0583	Nonlinear Control Systems	5	II	ING-INF/04	B
DT0445	Hybrid Systems Control and Simulation	5	II	ING-INF/04	B
DT0586	Power Electronics Converters	5	II	ING-IND/32	C
DT0558	Electrical Machines	5	II	ING-IND/32	C
DT0694	Renewable Energy and Storage Systems	5	II	ING-IND/32	C/D
DT0693	Instrumentation for Control of Energy Systems	5	II	ING-INF/04	D

II ANNO – 60 C.F.U.

CODICE	DENOMINAZIONE INSEGNAMENTO	CFU	SEM.	S.S.D.	TIP.
DT0572	Optimization and Optimal Control	5	I	ING-INF/04	B
DT0573	Rigid Body Dynamics and Robotics	5	I	ING-INF/04	B
DT0574	M.Sc. Laboratory Advanced Control	5	I	ING-INF/04	B
DT0575	Embedded Real–Time Systems	5	I	ING-INF/05	B
DT0576	Image–Based 3D Scene Reconstruction	5	I	ING-INF/05 MAT/09	B/C
DT0577	Seminar on Selected Topics in Systems and Control	5	I	MAT/09	C
F1197	Altre attività	3	II		F
DT0197	Further Training and Internship	9	II		F
	Master's Thesis	18	II		E

L'Aquila (primo semestre del primo anno)
L'Aquila (secondo semestre del primo anno)
Kiel – Specializzazione Energy (primo semestre del secondo anno)
Nantes/L'Aquila/Bucarest/Kiel (secondo semestre del secondo anno)

I ANNO – 60 C.F.U.

CODICE	DENOMINAZIONE INSEGNAMENTO	CFU	SEM.	S.S.D.	TIP.
DT0692	Control of Energy Systems	6	I	ING-INF/04 ING-IND/32	B/C
DT0695	Systems Modelling and Simulation	6	I	ING-INF/04	B
DT0698	Embedded Systems	6	I	ING-INF/05	B
DT0690	Fundamentals of Partial Differential Equations and Numerical Methods	6	I	MAT/08 MAT/05	C/D
DT0691	Fundamentals of Energy Systems	6	I	ING-IND/32	C
DT0583	Nonlinear Control Systems	5	II	ING-INF/04	B
DT0445	Hybrid Systems Control and Simulation	5	II	ING-INF/04	B
DT0586	Power Electronics Converters	5	II	ING-IND/32	C
DT0558	Electrical Machines	5	II	ING-IND/32	C
DT0694	Renewable Energy and Storage Systems	5	II	ING-IND/32	C/D
DT0693	Instrumentation for Control of Energy Systems	5	II	ING-INF/04	D

II ANNO – 60 C.F.U.

CODICE	DENOMINAZIONE INSEGNAMENTO	SEM.	CFU	S.S.D.	TIP.
DT0578	Modeling and Control of Power Electronics Converters	I	5	ING-INF/04	B
DT0579	Grid Converters for Renewable Energy Systems	I	5	ING-INF/04	B
DT0572	Optimization and Optimal Control	I	5	ING-INF/04	B
DT0580	Seminar Power Electronics	I	5	ING-INF/05	B
DT0581	M.Sc. Laboratory Power Electronics – Renewable Energy – Drive Engineering	I	5	ING-INF/05 MAT/09	B/C
DT0582	Advanced Digital Signal Processing	I	5	MAT/09	C
F1197	Altre attività	II	3		F
DT0197	Further Training and Internship	II	9		F
	Master's Thesis	II	18		E

Tabella D1: INSEGNAMENTI CONSIGLIATI in Tipologia D (erogati da questo CdS)

CODICE	DENOMINAZIONE INSEGNAMENTO	CFU	SEM.	S.S.D.
I2I007	Basi di Dati II	9	II	ING-INF/05
DT0618	Laboratory of Automatic Systems	3	II	ING-INF/04
DT0619	Intelligent Systems Laboratory	3	I	ING-INF/05
DT0692	Control of Energy Systems	6	I	ING-INF/04 ING-IND/32
DT0693	Instrumentation for Control of Energy and Systems	6	II	ING-INF/04
DT0621	Geographical Information Science	6	II	ING-INF/05
	Altri insegnamenti ING-INF/04 e ING-INF/05 erogati nei due curricula ConSysEng e InfoTech			

Tabella D2: INSEGNAMENTI CONSIGLIATI in Tipologia D (erogati da altri CdS)

CODICE	DENOMINAZIONE INSEGNAMENTO	CFU	SEM.	S.S.D.
I0656	Elettronica II	9	I	ING-INF/01
I0273	Dispositivi elettronici	9	II	ING-INF/01
I0652	Campi elettromagnetici	9	II	ING-INF/02
DT0191	RF design for Internet of Things	9	I	ING-INF/02
I0044	Fondamenti di comunicazioni	9	I	ING-INF/03
DT0189	Digital Signal Processing and Multimedia	6	II	ING-INF/03
DT0193	Advanced and Software Defined Networks	9	II	ING-INF/03
I0649	Automazione industriale	6	II	ING-INF/04
I0650	Ingegneria e tecnologia dei sistemi di controllo	9	II	ING-INF/04
I0375	Robotica Industriale	9	I	ING-INF/04
DT0597	Machine Learning for Smart Cities Automation	9	I	ING-INF/04
DT0011	Modeling and Control of Networked Distributed Systems	6	I	ING-INF/04
I0549	Systems Biology	6	I	ING-INF/06
I0243	Basi dati	6	I	ING-INF/05
I2I040	Reti di Calcolatori	6	I	ING-INF/05
I2I038	Programmazione per il web	6	II	ING-INF/05
I0654	Sistemi operativi	6	I	ING-INF/05
DT0201	Intelligent Systems and Robotics Laboratory	6	I	ING-INF/05
I0651	Misure elettroniche	9	I	ING-INF/07
DT0182	Measurements for Telecommunications	6	II	ING-INF/07
I1M049	Automazione industriale a fluido	6	II	ING-IND/13
I2S017	Dispositivi e sistemi meccanici per l'automazione	9	I	ING-IND/13
I2L045	Automazione elettrica e laboratorio	12	I	ING-IND/32
DG0092	Simulazione e controlli per automazione	6	I	ING-IND/32
DG0093	Laboratorio di Automazione Elettrica	6	I	ING-IND/32
I2L036	Azionamenti elettrici	9	II	ING-IND/32
DG0080	Misure per l'Automazione e l'Industria	9	I	ING-INF/07
F0519	Dynamical Systems and Bifurcation Theory	6	I	MAT/05
DT0204	Software Quality Engineering	6	I	INF/01
DT0223	Software Architectures	6	I	INF/01
F0193	Model Driven Engineering	6	II	INF/01
DT0230	Advanced Models for Software Engineering	6	II	INF/01
F0161	Elaborazioni delle Immagini	6	I	INF/01
DT0705	Artificial Intelligence for Medical Imaging	6	II	INF/01