

Allegato B1

Quadro degli insegnamenti e delle altre attività formative programmate per l'intero percorso di studi della coorte di riferimento

Anno accademico **2022-2023**

Corso di laurea magistrale in **Ingegneria Elettronica - classe LM 29**

Curriculum UNICO

DM 270/2004, art. 12, comma 2, lettera a)

Tipologie attività form.		Ambiti disciplinari		Attività formative programmate			CFU da ordinamento didattico			
Denominazione	Tip.	N.	Denominazione	Insegnamento o modulo	SSD	CFU				
caratterizzanti	b	1	Ingegneria Elettronica	Electrical and Electronic Measurements	ING-INF/07	6				
				Electronic Devices and Components	ING-INF/01	6				
				Electronic Instrumentation and Sensors	ING-INF/07	6				
				30 CFU a scelta tra:						
				Architetture e algoritmi paralleli	ING-INF/01	6				
				Compatibilità, normativa e sicurezza degli apparati elettronici	ING-INF/02	6				
				Elettronica di potenza	ING-INF/01	6				
				Laboratorio di antenne	ING-INF/02	6				
				Microonde	ING-INF/02	6				
				Neural, Bio-inspired and Quantum Computing	ING-INF/01	6				
				Antenne	ING-INF/02	6				
				Propagazione guidata	ING-INF/02	6				
				Sistemi elettronici per le alte frequenze	ING-INF/01	6				
				Measurement Signal Processing	ING-INF/01					
				Measurement Signal Processing Lab	ING-INF/01					
				Chip Design I	ING-INF/01					
				Cyber-Physical Systems and Digital Twins in Intelligent Transportation Systems: Principles, Safety, Security and Human Factors	ING-INF/01					
Totale ambito						48	-			
Totale attività caratterizzanti							48	48 - 64		
affini e integrative	c	1	Discipline ingegneristiche	42 CFU a scelta tra:						
				Advanced Digital Control Systems for Electrical Energy Conversion	ING-IND/32	6				
				Advanced Scheduling Systems	ING-INF/05	6				
				Azionamenti elettrici per applicazioni moderne	ING-IND/32	6				
				Calcolatori elettronici	ING-INF/05	6				
				Comunicazioni wireless	ING-INF/03	6				
				Data Analytics and Machine Learning	ING-INF/05	6				
				Design of Electric Machines for Modern Drives	ING-IND/32	6				
				Elaborazione numerica del segnale	ING-INF/03	6				
				Electronic Circuits for High Frequencies	ING-INF/01	6				
				Elettronica industriale	ING-INF/01	6				

Laboratorio didattico di ingegneria dell'informazione	ING-INF/03	6
Meccatronica e robotica	ING-IND/13	6
Nanoelectronic Devices and Circuits with High Energy Efficiency for IoT Applications	ING-INF/01	6
Ottimizzazione	ING-INF/04	6
Sicurezza informatica	ING-INF/05	6
Simulazione avanzata per il progetto di sistemi elettrici	ING-IND/31	6
Sistemi di telecomunicazione	ING-INF/03	6
Sistemi operativi	ING-INF/05	6
Teoria dei sistemi e del controllo	ING-INF/04	12
Visione artificiale	ING-INF/05	6
CAE of Mechatronic Systems I	ING-IND/13	
CAE of Mechatronic Systems I Lab	ING-IND/13	
Data Mining and Neurocomputing	ING-INF/05	
Fundamentals of Image Processing	ING-INF/05	
Lab on Autonomous Driving Cars	ING-INF/04	
Labour Fundamentals of Image Processing	ING-INF/05	
Labor: Robotics Fundamentals	ING-IND/13	
Mobile Communications	ING-INF/03	
Mobile Communications Lab	ING-INF/03	
Mobile Robot Navigation with Artificial Intelligence	ING-INF/04	
Nonlinear Dynamics - Modelling, Simulation and Neuro-Computing	ING-INF/04	
Nonlinear Systems: Analysis and Control	ING-INF/04	
Nonlinear Systems: Analysis and Control Lab	ING-INF/04	
Pervasive Computing	ING-INF/05	
Pervasive Computing Lab	ING-INF/05	
Practical Introduction to Neural Networks and Deep Learning	ING-INF/05	
Research Seminar on Self Organizing Systems	ING-INF/04	
Robotics Fundamentals	ING-IND/13	
Seminar on Big Data, Predictive Analytics, and Automation in Telecommunications and Intelligent Transportation Systems	ING-INF/05	
Signal Processing for Communications	ING-INF/03	
Signal Processing for Communications Lab	ING-INF/03	
Smart Cities - Technology, Management & Governance	ING-INF/05	
Smart Grids	ING-IND/31	
Transportation Telematics Advances: Digitalization, Automation and Smart Logistics	ING-INF/05	
Vision Based State Estimation and Sensors Fusion	ING-INF/05	

			Vision Based State Estimation and Sensors Fusion Lab	ING-INF/05	
			Advanced Wireless Communications	ING-INF/03	
			Control of Autonomous Systems	ING-INF/04	
			Control of Autonomous Systems Lab	ING-INF/04	
			Deep Learning and Spiking Neural Networks for Advanced Data Mining	ING-INF/05	
			IoT and Smart Buildings	ING-INF/05	
			Lab on Machine Learning and Applications in Intelligent Vehicles	ING-INF/05	
			Machine Learning for Information and Communication Engineering	ING-INF/05	
			Mathematical Modeling Methods of Transportation and Logistics	ING-INF/05	
			Mobile Applications with Androids	ING-INF/05	
			Modelling and Simulation of Energy Systems	ING-IND/32	
			Optimisation and Neural Network based Simulation Lab for Transportation and Logistics	ING-INF/05	
			Power Line Communications	ING-INF/03	
			Research Seminar in Control and Measurement Systems	ING-INF/04	
			Research Seminar in Embedded Communications	ING-INF/03	
			Research Seminar in Intelligent Transportation Systems	ING-INF/04	
			Research Seminar in Pervasive Computing	ING-INF/05	
			Research Seminar in Sensors and Actuators	ING-IND/32	
			Research Seminar in Smart Grids	ING-IND/32	
			Robust Design and Reliability Lab	ING-IND/13	
			Sensors and Actuators	ING-IND/32	
			Sensors and Actuators Lab	ING-IND/32	
			Sensor Networks	ING-INF/03	
			Sensor Networks Lab	ING-INF/03	
			Wireless Networks	ING-INF/03	
			Wireless Networks KU	ING-INF/03	
Totale ambito				42	min. 12
Totale affini e				42	30 - 42
a scelta studente	d			12	
Totale a scelta				12	8 - 12
prova finale e lingua straniera.	e	1	Prova finale	15	15 - 18
	e	2	Prova conoscenza	3	3 - 3
Totale prova				18	18 - 21
ulteriori attività formative (art.10, comma 5, lettera d)	f	1			0 - 6
	f	2			
	f	3			
	f	4			
	f	5			
Totale altre				30	26 - 39
TOTALE GENERALE				120	

Legenda

SSD: Settore scientifico-disciplinare

CFU: Credito formativo universitario, corrispondente a 25 ore di lavoro di apprendimento dello studente

Tip.: Tipologia di attività formativa prevista dall'art. 10 del DM 270/2004.

Nota: gli insegnamenti in campo verde sono erogati presso l'Università Alpe Adria di Klagenfurt (A).