

Studies Plan

EL Micro- and Nanotechnologies for Integrated Systems 2024-25

Block 1

Courses				Master 1		Master 2		Master 3		Master 4		Exam Session	Exam	Credit				
Lang.	Code	Sect.	Teacher	C	E	L	T	P	I	C	E	L	T	P	I			
	Analog circuit design II (for MNIS)																	
E	EE-435	EL	Koukab					2h	1h					1h		Win	Written	4
	Design technologies for integrated systems																	
E	CS-472	IN	De Micheli					3h	2h							Win	During the semester	6
	Digital systems design																	
E	EE-334	EL	Burg					2h	2h							Win	Written	4
	Fundamentals of VLSI design																	
E	EE-429	EL	Burg Levisse					3h	1h					2h		Win	Written	6

Block 2

Courses				Master 1		Master 2		Master 3		Master 4		Exam Session	Exam	Credit				
Lang.	Code	Sect.	Teacher	C	E	L	T	P	I	C	E	L	T	P	I			
	Nanoelectronics																	
E	EE-535	EL	Ionescu					2h								Win	Written	2
	Physical models for micro and nanosystems																	
E	EE-536	EL	Kis					2h								Win	During the semester	2
	Test of VLSI systems																	
E	EE-530	EL	Schmid					2h								Win	Written	2

Group 1

Courses				Master 1		Master 2		Master 3		Master 4		Exam Session	Exam	Credit				
Lang.	Code	Sect.	Teacher	C	E	L	T	P	I	C	E	L	T	P	I			
	Advanced A/MS VLSI: A-to-D Converter																	
E	EE-524	EL						1h	2h							Win	Written	3
	Fundamentals of biosensors and electronic biochips																	
E	EE-515	EL	Guiducci					2h	1h							Win	Written	3
	Mathematics of data: from theory to computation																	
E	EE-556	EL	Cevher					3h						3h		Win	Written	6
	Optical detectors																	
E	MICRO-523	MT	Bruschini					2h	1h							Win	Oral	3
	Radio frequency circuits design techniques																	
E	EE-426	EL	Ruffieux					2h	2h							Win	Written	4
	Semiconductor devices I																	
E	EE-557	EL	Matioli					3h	1h							Win	During the semester	4
	Seminar in physiology and instrumentation																	
	MICRO-568	MT	Radenovic					2h								Win	Written	2
	Wireless receivers: algorithms and architectures																	
E	EE-442	EL	Burg					2h	2h							Win	During the semester	4

Master project

Courses			Master 1			Master 2			Master 3			Master 4			MP Spring			Exam Session	Exam															
Lang.	Code	Sect. Teacher	C	E	L	T	P	I	C	E	L	T	P	I	C	E	L	T	P	I	C	E	L	T	P	I	C	E	L	T	P	I		
		MNIS Master project for students from Grenoble EE-599(b) EL Profs divers																											420h					
		MNIS Master project for students from Torino EE-599(c) EL Profs divers																											420h					
F		Engineering internship credited with master project (master in Electrical and Electronical engineering) EE-597(a) EL Profs divers																											320h	Win	During the semester			
		Master project in Electrical and Electronic Engineering EE-599(a) EL Profs divers																											420h	Sum	Oral			