

Physical engineering and embedded systems

Fall semester (Sept - Feb) 2nd year of Master

Teaching Units	Teaching modules	Code	Hours			ГСТС
			Course	Practical Work	Total	ECIS
Languages	French as a foreign language		20		20	5

Nuclear engineering - GENE

Physics of nuclear reactors Nuclear plant commissioning	Neutronics 2	3EAC1	13	6	19	8
	Deterministic simulations	3EAC4	15	33	48	
	Materials for nuclear plants	3EAC3	18		18	
	Nuclear safety		21		21	
	Pressurized water reactor	3EAD5	13	16	29	
Total					135	13

Courses in bold are taught in English with slides and handouts in French.

Embedded Systems and Control - SATE

Project and FPGA	Conferences	3EAK3	5		5	
	SoC on FPGA	3EAH6		30	30	8
	Industrial project			65	65	
	Software engineering	3EAG7	5	10	15	
engineering	Adaptative control	3EAG8	1.5	7.5	9	4
	Architecture for computing	2E1AC2	9	30	39	
Embedded Linux and signal	Error correcting codes	3EAH10	6	6	12	
	Embedded Linux	3EAH5	6	30	36	•
	Engineering intensive project	3EAH9		35	35	9
	Adaptive filtering (2023)	3EAH4	15	18	33	
Total					279	21

Courses in italics are taught in French with slides, handouts and examinations in English

Physical Engineering of Sensors - IPC

Imaging	Image processing	3EIB2	4	24	28	3
Instrumentation and connectivity	Smart sensors			29	29	10
	Advanced instrumentation for sensors	3EAE1	15	18	33	
	Real time systems, IOT	3EAF5	9	21	30	
Biomedical	Physics and technology of medical devices	3EAB4	20		20	2
Total					140	15

If the student would like to carry out a project in one of our labs, following their study semester, they will also be able to follow other courses in parallel

- optoelectronics (24 hours of courses, 2 ECTS)
- nuclear physics simulations (9 hours of courses, 15 hours of practical work, 2 ECTS)