

Teaching program

Master Wireless Embedded Technologies

Academic year 2020-2021

Ecole polytechnique de l'université de Nantes

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Part I

Tables of teaching units

Semester 9 - unit *Antenne_Antenne et Hyperfréquence*

ModOu_Models and Tools

ECTS : 7

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• CAO_Computer tools for connected objects				20			2.31
• Elctromagn_Electromagnetics and microwaves	15						2.31
• MoC_Mathematics for connected objects	10		6				2.38
TOTAL	25	0	6	20	0	0	

TS_Signal Processing

ECTS : 5

Manager : WANG Yide

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• Signal1_Random signal processing	10						1.7
• Signal2_Advanced signal processing	10		10				3.3
TOTAL	20	0	10	0	0	0	

TOC_Technologies for Connected Objects

ECTS : 5

Manager : PILLEMENT Sébastien

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• ConsoFiab_Power consumption and reliability	15						1.7
• OSEmb_Embedded OS	7						1.65
• Protocoles_Transmission protocols for connected objects	8						1.65
TOTAL	30	0	0	0	0	0	

ESP_Scientific publishing and Professionalization

ECTS : 5

Manager : PILLEMENT Sébastien

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• Biblio_Bibliography				20			4
• OutilsBiblio_Bibliographic methods and tools	10						1
TOTAL	10	0	0	20	0	0	

Archi_ Architecture and Design Methodologies**ECTS : 5***Manager : LE NOURS Sebastien*

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• Architecture_ Architecture of embedded systems	12		3				2.5
• Methodo_ Design of hardware/software architecture	12		3				2.5
TOTAL	24	0	6	0	0	0	

CLIP-MAVIE_ Innovative and Entrepreneurial Management ECTS : 3

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• CLIP-MAVIE_ Innovative and Entrepreneurial Management	18			7			3
TOTAL	18	0	0	7	0	0	

Sum of semester

	Lect	Tut	PW	Proj	WP	Asst	ECTS
Sum	127	0	22	47	0	0	30
Face-to-face sum	196						

Semester 9 - unit

CommNum_Communications

numériques avancées

ModOu_Models and Tools

ECTS : 7

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• CAO_Computer tools for connected objects				20			2.31
• Elctromagn_Electromagnetics and microwaves	15						2.31
• MoC_Mathematics for connected objects	10		6				2.38
TOTAL	25	0	6	20	0	0	

TS_Signal Processing

ECTS : 5

Manager : WANG Yide

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• Signal1_Random signal processing	10						1.7
• Signal2_Advanced signal processing	10		10				3.3
TOTAL	20	0	10	0	0	0	

TOC_Technologies for Connected Objects

ECTS : 5

Manager : PILLEMENT Sébastien

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• ConsoFiab_Power consumption and reliability	15						1.7
• OSEmb_Embedded OS	7						1.65
• Protocoles_Transmission protocols for connected objects	8						1.65
TOTAL	30	0	0	0	0	0	

ESP_Scientific publishing and Professionalization

ECTS : 5

Manager : PILLEMENT Sébastien

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• Biblio_Bibliography				20			4
• OutilsBiblio_Bibliographic methods and tools	10						1
TOTAL	10	0	0	20	0	0	

Archi_ Architecture and Design Methodologies**ECTS : 5***Manager : LE NOURS Sebastien*

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• Architecture_ Architecture of embedded systems	12		3				2.5
• Methodo_ Design of hardware/software architecture	12		3				2.5
TOTAL	24	0	6	0	0	0	

CLIP-MAVIE_ Innovative and Entrepreneurial Management ECTS : 3

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• CLIP-MAVIE_ Innovative and Entrepreneurial Management	18			7			3
TOTAL	18	0	0	7	0	0	

Sum of semester

	Lect	Tut	PW	Proj	WP	Asst	ECTS
Sum	127	0	22	47	0	0	30
Face-to-face sum	196						

Semester 9 - unit *SystEmb_ Systèmes et logiciels embarqués*

ModOu _Models and Tools

ECTS : 7

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• CAO_ Computer tools for connected objects				20			2.31
• Elctromagn_ Electromagnetics and microwaves	15						2.31
• MoC_ Mathematics for connected objects	10		6				2.38
TOTAL	25	0	6	20	0	0	

TS _Signal Processing

ECTS : 5

Manager : WANG Yide

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• Signal1_ Random signal processing	10						1.7
• Signal2_ Advanced signal processing	10		10				3.3
TOTAL	20	0	10	0	0	0	

TOC _Technologies for Connected Objects

ECTS : 5

Manager : PILLEMENT Sébastien

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• ConsoFiab_ Power consumption and reliability	15						1.7
• OSEmb_ Embedded OS	7						1.65
• Protocoles_ Transmission protocols for connected objects	8						1.65
TOTAL	30	0	0	0	0	0	

ESP _Scientific publishing and Professionalization

ECTS : 5

Manager : PILLEMENT Sébastien

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• Biblio_ Bibliography				20			4
• OutilsBiblio_ Bibliographic methods and tools	10						1
TOTAL	10	0	0	20	0	0	

Archi_ Architecture and Design Methodologies**ECTS : 5***Manager : LE NOURS Sebastien*

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• Architecture_ Architecture of embedded systems	12		3				2.5
• Methodo_ Design of hardware/software architecture	12		3				2.5
TOTAL	24	0	6	0	0	0	

CLIP-MAVIE_ Innovative and Entrepreneurial Management ECTS : 3

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• CLIP-MAVIE_ Innovative and Entrepreneurial Management	18			7			3
TOTAL	18	0	0	7	0	0	

Sum of semester

	Lect	Tut	PW	Proj	WP	Asst	ECTS
Sum	127	0	22	47	0	0	30
Face-to-face sum	196						

Semester 10 - unit *Antenne_Antenne et hyperfréquence*

Antenne_Antenna and microwave circuit

ECTS : 5

Manager : RAZBAN HAGHIGHI Tchanguiz

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• Antenne_Antenna	15						2.5
• Hyper_Microwaves circuits	15						2.5
TOTAL	30	0	0	0	0	0	

StageWET_Research internship

ECTS : 25

Manager : PILLEMENT Sébastien

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• StageWET_Research internship							25
TOTAL	0	0	0	0	0	0	

Sum of semester

	Lect	Tut	PW	Proj	WP	Asst	ECTS
Sum	30	0	0	0	0	0	30
Face-to-face sum	30						

Semester 10 - unit

CommNum_ Communications numériques avancées

StageWET_ Research internship

ECTS : 25

Manager : PILLEMENT Sébastien

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• StageWET_ Research internship							25
TOTAL	0	0	0	0	0	0	

CommNum_ Advanced digital communications

ECTS : 5

Manager : DIOURIS Jean-François

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• CommAv_ Advanced digital communications	15						2.5
• TraitAnt_ Antenna processing	15						2.5
TOTAL	30	0	0	0	0	0	

Sum of semester

	Lect	Tut	PW	Proj	WP	Asst	ECTS
Sum	30	0	0	0	0	0	30
Face-to-face sum	30						

Semester 10 - unit *SystEmb_ Systèmes et logiciels embarqués*

StageWET_ Research internship

ECTS : 25

Manager : PILLEMENT Sébastien

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• StageWET_ Research internship							25
TOTAL	0	0	0	0	0	0	

SystEmb_ Embedded systems and software

ECTS : 5

Manager : LE NOURS Sébastien

Course	Lect	Tut	PW	Proj	WP	Asst	Coef
• Conception_ Design of embedded systems	15						2.5
• LogEmb_ Embedded software	8	3	4				2.5
TOTAL	23	3	4	0	0	0	

Sum of semester

	Lect	Tut	PW	Proj	WP	Asst	ECTS
Sum	23	3	4	0	0	0	30
Face-to-face sum	30						

Part II

Sheets of courses

Antenne _ Antenna

Hours

Lect	Tut	PW	Proj	WP	Asst
15					

Evaluation

One evaluation : *Examen*

Manager : Tchanguiz RAZBAN HAGHIGHI

Architecture _ Architecture of embedded systems

Hours

Lect	Tut	PW	Proj	WP	Asst
12		3			

Evaluation

2 evaluations :

- *Examen*
- *Projet/Rapport*

Manager : Olivier PASQUIER

Biblio_Bibliography

Hours

Lect	Tut	PW	Proj	WP	Asst
			20		

Evaluation

2 evaluations :

- *Soutenance*
- *Rapport*

Manager : Sébastien PILLEMENT

CAO_ Computer tools for connected objects

Hours

Lect	Tut	PW	Proj	WP	Asst
			20		

Evaluation

One evaluation : *Projet/Rapport*

Manager : Sébastien PILLEMENT

CLIP-MAVIE _ Innovative and Entrepreneurial Management

Hours

Lect	Tut	PW	Proj	WP	Asst
18			7		

Evaluation

2 evaluations :

- *CC ECRIT*
- *CC ORAL*

Manager : Olivier GODARD

CommAv _Advanced digital communications

Hours

Lect	Tut	PW	Proj	WP	Asst
15					

Evaluation

One evaluation : *Examen*

Manager : Jean-François DIOURIS

Conception _ Design of embedded systems

Hours

Lect	Tut	PW	Proj	WP	Asst
15					

Evaluation

2 evaluations :

- *Examen*
- *Projet/Rapport*

Manager : Sebastien LE NOURS

ConsoFiab _Power consumption and reliability

Hours

Lect	Tut	PW	Proj	WP	Asst
15					

Evaluation

One evaluation : *Examen*

Manager : Sébastien PILLEMENT

Elctromagn_Electromagnetics and microwaves

Hours

Lect	Tut	PW	Proj	WP	Asst
15					

Evaluation

One evaluation : *Examen*

Manager : Tchanguiz RAZBAN HAGHIGHI

Hyper_Microwaves circuits

Hours

Lect	Tut	PW	Proj	WP	Asst
15					

Evaluation

One evaluation : *Examen*

Manager : Tchanguiz RAZBAN HAGHIGHI

LogEmb _ Embedded software

Hours

Lect	Tut	PW	Proj	WP	Asst
8	3	4			

Evaluation

One evaluation : *Examen*

Manager : Jean-Luc BECHENNEC

Methodo _ Design of hardware/software architecture

Hours

Lect	Tut	PW	Proj	WP	Asst
12		3			

Evaluation

2 evaluations :

- *Examen*
- *Projet/Rapport*

Manager : Sebastien LE NOURS

MoC_ Mathematics for connected objects

Hours

Lect	Tut	PW	Proj	WP	Asst
10		6			

Evaluation

One evaluation : *Examen*

Manager : Christophe BOURLIER

OSEmb _ Embedded OS

Hours

Lect	Tut	PW	Proj	WP	Asst
7					

Evaluation

One evaluation : *Examen*

Manager : Jean-Luc BECHENNEC

OutilsBiblio_ Bibliographic methods and tools

Hours

Lect	Tut	PW	Proj	WP	Asst
10					

Evaluation

2 evaluations :

- *Pratique*
- *Oral*

Manager : Sébastien PILLEMENT

Protocoles _ Transmission protocols for connected objects

Hours

Lect	Tut	PW	Proj	WP	Asst
8					

Evaluation

One evaluation : *Examen*

Manager : Jean-François DIOURIS

Signal1 _ Random signal processing

Hours

Lect	Tut	PW	Proj	WP	Asst
10					

Evaluation

One evaluation : *Examen*

Manager : Yide WANG

Signal2_ Advanced signal processing

Hours

Lect	Tut	PW	Proj	WP	Asst
10		10			

Evaluation

One evaluation : *Examen*

Manager : Yide WANG

StageWET_ Research internship

Hours

Lect Tut PW Proj WP Asst

Evaluation

One evaluation : *Soutenance*

Manager : Sébastien PILLEMENT

TraitAnt _ Antenna processing

Hours

Lect	Tut	PW	Proj	WP	Asst
15					

Evaluation

One evaluation : *Examen*

Manager : Yide WANG