

**POLITÉCNICA**

UNIVERSIDAD POLITÉCNICA DE MADRID
E.T.S. DE INGENIEROS DE TELECOMUNICACIÓN



Academic Transcript of Records

Family name: MARTIN REDONDO **First name(s):** PABLO

Date and place of birth: November 19, 1998, ESPAÑA

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University: UNIVERSIDAD POLITÉCNICA DE MADRID

School: E.T.S. de INGENIEROS DE TELECOMUNICACIÓN

Degree Programme: 09TT GRADO EN INGENIERIA DE TECNOLOGIAS Y SERVICIOS DE TELECOMUNICACION (BACHELOR OF ENGINEERING IN TELECOMMUNICATION TECHNOLOGIES AND SERVICES)

Dr. Álvaro GUTIÉRREZ MARTÍN, Academic Secretary of this School CERTIFIES that the aforementioned student has passed the following courses:

CODE	COURSE NAME	ACADEMIC YEAR	TYPE (2)	ECTS CREDITS	PERCENTILE (3)	GRADE (5)
95000001	ALGEBRA	2016-17	T	6.00	89.9	6.6
95000002	CALCULUS	2016-17	T	6.00	99	7.8
95000003	PHYSICS 1	2016-17	T	6.00	97.1	7.3
95000004	INTRODUCTION TO TELECOMMUNICATIONS ENGINEERING	2016-17	B	3.00	97.3	8.1
95000005	FOUNDATIONS OF TELEMATICS SYSTEMS	2016-17	B	4.50	99.2	9.1
95000006	PHYSICS 2	2016-17	B	4.50	100	10.0
95000007	VECTOR ANALYSIS	2016-17	T	6.00	98.3	8.5
95000008	BASIC CIRCUIT ANALYSIS	2016-17	T	4.50	89.4	6.8
95000009	AN INTRODUCTION TO ELECTRONICS	2016-17	T	4.50	97.5	9.4
95000010	COMPUTER PROGRAMMING	2016-17	T	6.00	83.6	7.8
95000011	ENGLISH FOR ACADEMIC AND PROFESSIONAL COMMUNICATION 1. READING AND WRITING SKILLS	2017-18	B	3.00	88.6	8.3
95000012	BUSINESS MANAGEMENT BASICS	2016-17	T	4.50	99	8.0
95000013	ELECTROMAGNETICS	2017-18	T	4.50	90.1	6.3
95000014	BASIC ELECTRONIC AND INSTRUMENTATION	2017-18	T	4.50	100	10.0
95000015	SIGNALS AND SYSTEMS	2017-18	T	6.00	98.8	8.7
95000016	RANDOM SIGNALS	2017-18	B	4.50	93.1	7.0
95000017	ENGLISH FOR ACADEMIC AND PROFESSIONAL COMMUNICATION 2. LISTENING AND SPEAKING SKILLS	2017-18	B	3.00	91.2	9.0
95000018	DIGITAL ELECTRONICS	2017-18	B	3.00	94	7.3
95000019	MATHEMATICAL METHODS	2016-17	T	4.50	94	7.3
95000020	ANALOG ELECTRONICS	2017-18	B	3.00	96.1	9.5
95000021	COMMUNICATION THEORY	2017-18	B	6.00	100	10.0
95000022	FIELDS AND WAVES IN TELECOMMUNICATIONS	2017-18	B	4.50	87.7	6.5
95000023	TELECOMMUNICATION NETWORKS AND SERVICES	2017-18	B	6.00	98.4	8.8
95000024	ANALYSIS AND DESIGN OF SOFTWARE	2017-18	B	4.50	99.7	9.5
95000025	ELECTRONIC CIRCUITS	2018-19	B	3.00	91.2	8.8
95000026	DIGITAL SYSTEMS I	2018-19	B	4.50	100	10.0
95000027	INFORMATION THEORY	2018-19	B	4.50	96.7	7.7
95000028	DIGITAL SIGNAL PROCESSING	2018-19	B	6.00	99.7	9.8
95000029	CIRCUIT ANALYSIS AND DESIGN	2017-18	B	3.00	99.4	8.5
95000030	TRANSMISSION SYSTEMS	2018-19	B	4.50	99.7	9.4
95000031	COMPUTER NETWORKS	2018-19	B	4.50	98.1	8.3
95000032	BUSINESS ADMINISTRATION	2018-19	B	4.50	100	9.0
95000033	DIGITAL SYSTEMS II	2018-19	B	3.00	100	10.0
95000034	ENERGY SYSTEMS	2018-19	B	4.50	98.1	8.2
95000035	RADIATION AND WAVE PROPAGATION	2018-19	B	3.00	96.9	8.4
95000036	OPTICAL COMMUNICATIONS	2018-19	B	4.50	99.6	9.0
95000037	COMMUNICATIONS ELECTRONICS	2018-19	B	4.50	99	7.4
95000038	INTERNET COMPUTING	2018-19	B	4.50	95.9	8.7
95000077	TOOLS FOR COMPUTATION AND VISUALIZATION	2017-18	O	4.50	100	10.0
95000089	INTRODUCTION TO INTELLIGENT ROBOTICS	2018-19	O	4.50	100	10.0
905000001	LEVEL B2 IN ENGLISH LANGUAGE	2016-17	B	0.00	TC	PASS
	ELECTIVE NON-CORE CURRICULAR ACTIVITIES	2018-19	O	3.00	TC	PASS
	ELECTIVE NON-CORE CURRICULAR ACTIVITIES	2018-19	O	2.00	TC	PASS

Summary of ECTS Credits

Type of subject	Required ECTS	Achieved ECTS
Basic (T)	63.0	63.0
Compulsory (B)	108.0	108.0
Elective (O)	57.0	14.0
Final Degree Project (P)	12.0	0.0

Madrid, - September 25, 2019

DEAN

Fdo.: Félix Pérez Martínez

SECRETARY

ADMINISTRATION OFFICER



Note 1: 60 ECTS credits represent a full academic year.

Note 2: Course/Activity type (Type): T = Basic; B = Compulsory; O = Elective; P = Final Degree Project.

Note 3: ECTS grades and percentiles are calculated per academic year.

Note 4: ECTS Grades given according to the ECTS system: A (best 10%, Excellent), B (next 25%, Very good), C (next 30%, Good), D (next 25%, Satisfactory), E (last 10%, Sufficient), TC (Transferred Course Credits).

Note 5: Numerical grades: Failed (0 - 4.9), Sufficient (5.0 - 6.9), Very Good (7.0 - 8.9), Excellent (9.0 - 10).