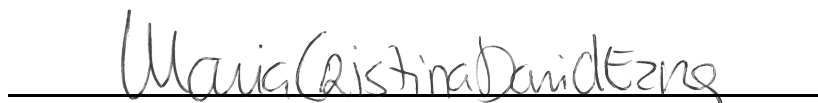


Maria Cristina De Oliveira Santos Matos David Ezra, Head of Graduation Academic
Unit of Instituto Superior Técnico, Universidade de Lisboa certifies that:

João Miguel de Almeida Vares Coelho, holder of the Identity Card No. 15808133, born in São Sebastião da
Pedreira, Lisboa and of PORTUGUESE nationality, obtained the degree of Licenciado in Information Systems
and Computer Engineering in the DEGREE (BSC) in INFORMATION SYSTEMS AND COMPUTER ENGINEERING,
on the 15th of July of 2019, with the final mark of 15 (fifteen) points, on a scale of 0 - 20, having been
approved in the following curricular units.

Registration Certificate number 30473/IST/L/2022.



Maria Cristina De Oliveira Santos Matos David Ezra

Head of Graduation Academic Unit

Instituto Superior Técnico, Lisboa, on the 19th of April of 2022.

Curricular Unit	ECTS	Grade
LINEAR ALGEBRA	6	16 (sixteen) points
DIFFERENTIAL AND INTEGRAL CALCULUS I	6	10 (ten) points
FOUNDATIONS OF PROGRAMMING	7.5	16 (sixteen) points
INTRODUCTION TO INFORMATION SYSTEMS AND COMPUTER ENGINEERING	3	15 (fifteen) points
DIFFERENTIAL AND INTEGRAL CALCULUS II	7.5	13 (thirteen) points
INTRODUCTION TO ALGORITHMS AND DATA STRUCTURES	7.5	13 (thirteen) points
LOGIC FOR PROGRAMMING	7.5	17 (seventeen) points
DISCRETE MATHEMATICS	7.5	11 (eleven) points
COMPLEX ANALYSIS AND DIFFERENTIAL EQUATIONS	7.5	14 (fourteen) points
MANAGEMENT	4.5	17 (seventeen) points
INTRODUCTION TO COMPUTER ARCHITECTURE	7.5	16 (sixteen) points
MECHANICS AND WAVES	6	18 (eighteen) points
OBJECT-ORIENTED PROGRAMMING	6	13 (thirteen) points
OPERATING SYSTEMS	6	17 (seventeen) points
ANALYSIS AND SYNTHESIS OF ALGORITHMS	6	16 (sixteen) points
ELECTROMAGNETISM AND OPTICS	6	16 (sixteen) points
HUMAN-COMPUTER INTERACTION	7.5	17 (seventeen) points
PROBABILISTIC AND STATISTICS	6	17 (seventeen) points
THEORY OF COMPUTATION	4.5	16 (sixteen) points
DATABASES	6	18 (eighteen) points

Curricular Unit	ECTS	Grade
COMPUTER GRAPHICS	4.5	17 (seventeen) points
ARTIFICIAL INTELLIGENCE	7.5	17 (seventeen) points
COMPUTER ORGANIZATION	6	16 (sixteen) points
COMPUTER NETWORKS	6	14 (fourteen) points
SYSTEMS ANALYSIS AND MODELING	6	15 (fifteen) points
COMPILERS	6	16 (sixteen) points
COMPUTING AND SOCIETY	3	16 (sixteen) points
SOFTWARE ENGINEERING	7.5	15 (fifteen) points
DISTRIBUTED SYSTEMS	7.5	18 (eighteen) points