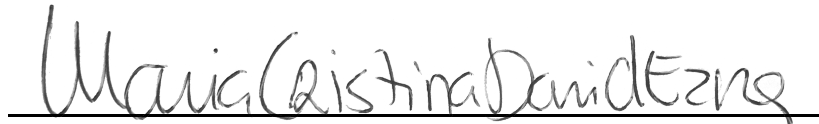


Maria Cristina De Oliveira Santos Matos David Ezra, Head of Graduation Academic Unit of Instituto Superior Técnico, Universidade de Lisboa certifies that:

**Henrique Afonso Coelho Dias**, holder of the Identity Card No. 15956258, born in Santana da Serra, Ourique 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 24th of June of 2020, with the final mark of 16 (sixteen) points, on a scale of 0 - 20, having been approved in the following curricular units.

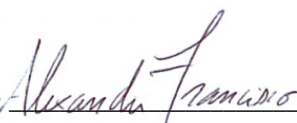
The Registration Certificate number 28471/IST/L/2020 was issued.



**Maria Cristina De Oliveira Santos Matos David Ezra**

Head of Graduation Academic Unit

Instituto Superior Técnico, Lisboa, on the 5th of August of 2020.



Curricular Unit	ECTS	Grade
<b>LINEAR ALGEBRA</b>	6	15 (fifteen) points
<b>DIFFERENTIAL AND INTEGRAL CALCULUS I</b>	6	14 (fourteen) points
<b>FOUNDATIONS OF PROGRAMMING</b>	7.5	20 (twenty) points
<b>INTRODUCTION TO COMPUTER ARCHITECTURE</b>	7.5	17 (seventeen) points
<b>INTRODUCTION TO INFORMATION SYSTEMS AND COMPUTER ENGINEERING</b>	3	17 (seventeen) points
<b>DIFFERENTIAL AND INTEGRAL CALCULUS II</b>	7.5	15 (fifteen) points
<b>INTRODUCTION TO ALGORITHMS AND DATA STRUCTURES</b>	7.5	18 (eighteen) points
<b>LOGIC FOR PROGRAMMING</b>	7.5	20 (twenty) points
<b>DISCRETE MATHEMATICS</b>	7.5	15 (fifteen) points
<b>COMPLEX ANALYSIS AND DIFFERENTIAL EQUATIONS</b>	7.5	14 (fourteen) points
<b>MANAGEMENT</b>	4.5	11 (eleven) points
<b>MECHANICS AND WAVES</b>	6	15 (fifteen) points
<b>OBJECT-ORIENTED PROGRAMMING</b>	6	20 (twenty) points
<b>OPERATING SYSTEMS</b>	6	15 (fifteen) points
<b>ANALYSIS AND SYNTHESIS OF ALGORITHMS</b>	6	15 (fifteen) points
<b>ELECTROMAGNETISM AND OPTICS</b>	6	14 (fourteen) points
<b>HUMAN-COMPUTER INTERACTION</b>	7.5	17 (seventeen) points
<b>PROBABILISTIC AND STATISTICS</b>	6	16 (sixteen) points
<b>THEORY OF COMPUTATION</b>	4.5	14 (fourteen) points
<b>DATABASES</b>	6	16 (sixteen) points

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