Course Unit Description - (FUMAC)

(Mathematic Foundations for Computing)

(Mestrado em Engenharia Electrotécnica e de Computadores)

Academic year: 2008/2009

isep

Subject group: Automação e Robótica

	Semestral	Optional		
Mode of study	Diurno	**Hours/Week**	**T-**Teórica	2
			PL-Prática-Laboratorial	2
Year	1º		**OT-**Orientação Tutorial	1
Semester	2º			

ECTS 3

Objectives

This course intends to provide the theoretical background for the model and development of autonomous systems.

Course Contents

Computational Algebraic Foundations
Formal Logicl
Finite State Automata
Graph Theory
Proofs

Recommended reading

ntroduction to the Theory of Computation. 2nd ed., Michael Sipser, Course Technology, Boston, MA, 2005. ISBN: 0534950973.
Introduction to Languages and the Theory of Computation, John Martin, New York, NY: McGraw Hill, 2002. ISBN: 0072322004.
Automata and Computability, Dexter Kozen, New York, NY: Springer-Verlag, 1999. ISBN: 0387949070.

Teaching Methods

Theory concepts presentation with consolidating practical examples and exercises done in the lab classes, and research and implementation works to be done extra classes

Assessment methods

The final grade is composed by the assessment of following components:
Practical exercises resolution in classes, and one research work and one implementation work, both composed by a written report, an oral presentation and defense

	Name
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Lecturer:	Eduardo Alexandre Pereira da Silva (EPS)