

Course Unit Description - (METAD)

(Decision Support Methods)

(Mestrado em Engenharia Electrotécnica e de Computadores)

Academic year: 2009/2010



Subject group: Ciências Básicas da Electrotecniá

	Semestral	Compulsory		
Mode of study	Diurno	Hours/Week	T-Teórica	2
Year	1 ^o		PL-Prática-Laboratorial	2
Semester	1 ^o		OT-Orientação Tutorial	1
ECTS				6

Objectives

Provide the student with information about basic optimization techniques and some case studies in Electrical Engineering.

Course Contents

Optimization versus Decision support.
Linear and Integer Programming models and optimization techniques.
Network problems.
Case studies: resource management; Equipment location; frequency assignment in mobile phones networks; etc

Recommended reading

Hillier, F.S., e G.J. Lieberman . Introduction to Operations Research (8ª edição)
McGraw-Hill, 2005.
Pardalos, P.M. and Resende, M.G.C. (editores). Handbook of Optimization in Telecommunications. Springer.

Teaching Methods

Theoretical classes: slides and some examples
Tutorial and Lab classes: exercises solving and discussion.

Assessment methods

Project work during the semester: 50% of the final result
Final Exam: 50% of the final result
Minimum in final exam: 9/20 points

	Name
Teacher responsible:	Ana Maria Marques Moura Gomes Viana (AGV)
Lecturer:	Ana Maria Marques Moura Gomes Viana (AGV) Alexandre Paulo Maia Pinheiro (APP)