INSTITUTO POLITÉCNICO DE BRAGANÇA

Course Unit	Thesis/Final Project/Internship	Field of study	Electrical Engineering
Master in	Industrial Engineering - Electrical Engineering	School	School of Technology and Management
Academic Year	2022/2023	Year of study	2
Level	2-2	ECTS credits	42.0
Type	Annual	Semester	-
Code	9572-355-2001-00-22		

Workload (hours)	1 134	Contact hours	T	TP	PL	TC	S	E	OT	O
			-	20	-	-	40	-	60	-

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s): Carlos Jorge da Rocha Balsa, José Alexandre de Carvalho Gonçalves, João Eduardo Pinto Castro Ribeiro

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:
1. Demonstrate knowledge in research methodologies. Identify and interpret the importance of innovation for the engineering and technological entrepreneurship activities.
2. Identify and be aware of the importance of innovation in engineering.
3. Demonstrate knowledge of the state of the art in a R&D or industrial application topic of Industrial Engineering.
4. Perform a R&D project or a traineeship in academic or professional environment, with the publication of achieved results using a thesis dissertation or a final report.
5. Implementation of a technician-scientific research in academic or professional environment.
6. The publication of the results is done through the writing of a dissertation or a final project or internship.

Prerequisites

Before the course unit the learner is expected to be able to:
Understand the major phenomena and technologies of Industrial Engineering.

Course contents

Seminars. Development of a dissertation/project/traineeship work. Creation of technology based enterprises.

Course contents (extended version)

1. Seminars
   - Attendance to seminars in Industrial Engineering, specialization area of Electrical Engineering.
   - Seminars on entrepreneurship applied to the conception of technology based enterprises.
2. Dissertation/project/traineeship
   - Development of a scientific research dissertation.
   - Development of a project work or a professional traineeship.
   - Publications in the area of Industrial Engineering, specialization domain of Electrical Engineering.

Recommended reading

Cada proposta de trabalho deve apresentar uma lista de bibliografia recomendada.

Teaching and learning methods

Tutorial guidance throughout the academic year that follows the work of dissertation/project/traineeship.

Assessment methods

- Alternative 1 - (Regular, Student Worker) (Final, Supplementary, Special)
  - Presentations - 25% (Quality of public presentation, defined by the regulatory rules of IPB Masters.)
  - Reports and Guides - 75% (Quality of Scientific / technical work, defined by the rules of IPB masters.)

Language of instruction

Portuguese

Electronic validation

Carlos Jorge da Rocha Balsa, João Eduardo Pinto Castro Ribeiro, José Alexandre de Carvalho Gonçalves	José Luís Sousa de Magalhaes Lima	José Carlos Rufino Amaro
22-02-2023	11-03-2023	17-03-2023