Course guide
270745 - NTR - New Trends in Robotics

Last modified: 21/07/2022

Unit in charge: Barcelona School of Informatics
Teaching unit: 1042 - URV - Universitat Rovira i Virgili.

Degree: MASTER'S DEGREE IN ARTIFICIAL INTELLIGENCE (Syllabus 2017). (Optional subject).

Academic year: 2022 **ECTS Credits:** 3.0 **Languages:** English

LECTURER

Coordinating lecturer: ALBERT OLLER PUJOL

Others: Primer quadrimestre:
ALBERT OLLER PUJOL - 10

PRIOR SKILLS

No previous specific competences are required

TEACHING METHODOLOGY

For each AI methodology:
Week-1. Classroom slides and paper introduction (by teacher)
Week-2. Homework: paper reading
Week-3. Paper discussion in classroom
Week-4. Report writing
Week-5. Oral presentation. Next paper introduction (by teacher)

LEARNING OBJECTIVES OF THE SUBJECT

1.Probabilistic techniques applied in robotics
2.Search techniques are applied in robotics
3.Decision making techniques applied in robotics

STUDY LOAD

Type	Hours	Percentage
Hours large group	27,0	36.00
Self study	48,0	64.00

Total learning time: 75 h

CONTENTS

Probabilistic techniques

Description:
Probabilistic techniques actually applied in robotics

Search techniques

Description:
Search techniques actually applied in robotics

Decision making techniques

Description:
Decision making techniques actually applied in robotics

ACTIVITIES

Paper discussion: probabilistic methods

Specific objectives:
1

Full-or-part-time: 25h
Theory classes: 6h
Laboratory classes: 3h
Self study: 16h

Paper discussion: search methods

Specific objectives:
2

Full-or-part-time: 25h
Theory classes: 6h
Laboratory classes: 3h
Self study: 16h

Paper discussion: decision making methods

Specific objectives:
3

Full-or-part-time: 25h
Theory classes: 6h
Laboratory classes: 3h
Self study: 16h

GRADING SYSTEM

Report of Probabilistic methods 33%
Report of Search methods 33%
Report of Decision Making methods 33%

BIBLIOGRAPHY

Complementary:
- Múltiple authors. Scientific papers will be provided.