Course guide
270745 - NTR - New Trends in Robotics

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

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

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Hours large group</td>
<td>27,0</td>
<td>36.00</td>
</tr>
<tr>
<td>Self study</td>
<td>48,0</td>
<td>64.00</td>
</tr>
</tbody>
</table>

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:
- Multiple authors. Scientific papers will be provided.