270735 - AIS - Artificial Intelligence Seminar

Coordinating unit: 270 - FIB - Barcelona School of Informatics
Teaching unit: 1042 - URV - Universitat Rovira i Virgili
Academic year: 2019
Degree: MASTER'S DEGREE IN ARTIFICIAL INTELLIGENCE (Syllabus 2012). (Teaching unit Optional)
MASTER'S DEGREE IN ARTIFICIAL INTELLIGENCE (Syllabus 2017). (Teaching unit Optional)
ECTS credits: 3
Teaching languages: English

Prior skills

Knowledge of the basic concepts in AI. It is not necessary to have previous knowledge on the topic of the seminar.

Degree competences to which the subject contributes

Specific:
CEA7. Capability to understand the problems, and the solutions to problems in the professional practice of Artificial Intelligence application in business and industry environment.
CEA8. Capability to research in new techniques, methodologies, architectures, services or systems in the area of Artificial Intelligence.
CEP2. Capability to solve the decision making problems from different organizations, integrating intelligent tools.
CEP3. Capacity for applying Artificial Intelligence techniques in technological and industrial environments to improve quality and productivity.
CEP4. Capability to design, write and report about computer science projects in the specific area of Artificial Intelligence.

Transversal:
CT3. TEAMWORK: Being able to work in an interdisciplinary team, whether as a member or as a leader, with the aim of contributing to projects pragmatically and responsibly and making commitments in view of the resources that are available.
CT4. EFFECTIVE USE OF INFORMATION RESOURCES: Managing the acquisition, structuring, analysis and display of data and information in the chosen area of specialisation and critically assessing the results obtained.
CT6. REASONING: Capability to evaluate and analyze on a reasoned and critical way about situations, projects, proposals, reports and scientific-technical surveys. Capability to argue the reasons that explain or justify such situations, proposals, etc..
CT7. ANALISIS Y SINTESIS: Capability to analyze and solve complex technical problems.

Teaching methodology

The following teaching methodologies will be employed:

* Lectures.
* Participative sessions.
* Team work.
* Autonomous work.

Learning objectives of the subject

1. Understand the basic concepts of a relevant area within AI and its relationship with the business world.
2. Solve in an effective way a problem related to the field presented in the seminar.
Study load

<table>
<thead>
<tr>
<th>Study load</th>
<th>Total learning time: 75h</th>
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</thead>
<tbody>
<tr>
<td>Theory classes:</td>
<td>10h</td>
</tr>
<tr>
<td>Practical classes:</td>
<td>10h</td>
</tr>
<tr>
<td>Laboratory classes:</td>
<td>5h</td>
</tr>
<tr>
<td>Guided activities:</td>
<td>2h</td>
</tr>
<tr>
<td>Self study:</td>
<td>48h</td>
</tr>
</tbody>
</table>

Content

Theoretical content

Degree competences to which the content contributes:
Description:
Presentation of an advanced research topic in the AI field.

Practical content

Degree competences to which the content contributes:
Description:
Solve or analyze a specific problem within the field presented in the seminar.
# Planning of activities

<table>
<thead>
<tr>
<th>Lectures</th>
<th>Hours: 75h</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Theory classes: 22h 30m</td>
</tr>
<tr>
<td></td>
<td>Practical classes: 0h</td>
</tr>
<tr>
<td></td>
<td>Laboratory classes: 0h</td>
</tr>
<tr>
<td></td>
<td>Guided activities: 0h</td>
</tr>
<tr>
<td></td>
<td>Self study: 52h 30m</td>
</tr>
</tbody>
</table>

**Description:**
Presentation of the theoretical content of the seminar.

**Specific objectives:**
1

<table>
<thead>
<tr>
<th>Practical component of the seminar</th>
<th>Hours: 0h</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Guided activities: 0h</td>
</tr>
<tr>
<td></td>
<td>Self study: 0h</td>
</tr>
</tbody>
</table>

**Description:**
Study of the state of the art in the seminar's topic or completion of exercises/problems.

**Specific objectives:**
2

# Qualification system

The evaluation will be based on the elaboration of a written report, individually or in pairs of students. In this document students will be asked to make a critical review of the methods described in the seminar and to analyze their applicability in a real world problem.

# Bibliography

**Basic:**
Moreno, A. Basic material on the topic of the seminar.

**Complementary:**
Moreno, A. Complementary material on the topic of the seminar.

**Others resources:**
- Hyperlink
  - [http://moodle.urv.cat](http://moodle.urv.cat)