

230724 - AI5G - Artificial Intelligence-Enabled 5G Radio Networks

Coordinating unit: 230 - ETSETB - Barcelona School of Telecommunications Engineering
 Teaching unit: 739 - TSC - Department of Signal Theory and Communications
 Academic year: 2019
 Degree: MASTER'S DEGREE IN TELECOMMUNICATIONS ENGINEERING (Syllabus 2013). (Teaching unit Optional)
 MASTER'S DEGREE IN ADVANCED TELECOMMUNICATION TECHNOLOGIES (Syllabus 2019). (Teaching unit Optional)
 ECTS credits: 5 Teaching languages: English

Teaching staff

Coordinator: Sallent Roig, Jose Oriol
 Others: Sallent Roig, Jose Oriol

Prior skills

Fundamentals on radiocommunications

Requirements

Fundamentals on radiocommunications

Teaching methodology

Use case-oriented

Learning objectives of the subject

The main objective of this subject is to gain insight, understand the underlying technological foundations & market forces so that one can guess where 5G & AI will be in Gartner's Technology Forecast 2025.

Study load

Total learning time: 125h	Hours large group:	39h	31.20%
	Hours medium group:	0h	0.00%
	Hours small group:	0h	0.00%
	Guided activities:	0h	0.00%
	Self study:	86h	68.80%

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Content

ARTIFICIAL INTELLIGENCE-ENABLED 5G RADIO NETWORKS

Learning time: 39h

Theory classes: 39h

Description:

1. 5G ecosystem
2. 5G system design
3. 5G New Radio
4. Radio network management in NG-RAN
5. Radio resource management in NG-RAN
6. Telemetry and data analytics

Specific objectives:

1. 5G ecosystem
2. 5G system design
3. 5G New Radio
4. Radio network management in NG-RAN
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Qualification system

Practical use case (80%)
Participation (20%)
No final exam

Bibliography