

## 230022 - PAV - Audio and Speech Processing

Coordinating unit: 230 - ETSETB - Barcelona School of Telecommunications Engineering  
Teaching unit: 739 - TSC - Department of Signal Theory and Communications  
Academic year: 2019  
Degree: BACHELOR'S DEGREE IN AUDIOVISUAL SYSTEMS ENGINEERING (Syllabus 2009). (Teaching unit Compulsory)  
BACHELOR'S DEGREE IN TELECOMMUNICATIONS SCIENCE AND TECHNOLOGY (Syllabus 2010). (Teaching unit Optional)  
BACHELOR'S DEGREE IN TELECOMMUNICATIONS TECHNOLOGIES AND SERVICES ENGINEERING (Syllabus 2015). (Teaching unit Optional)  
ECTS credits: 6 Teaching languages: Spanish

### Teaching staff

Coordinator: Antonio Bonafonte  
Others: Antonio Bonafonte, Asunción Moreno, José Adrián Rodríguez Fonollosa

### Opening hours

Timetable:

### Prior skills

### Requirements

### Degree competences to which the subject contributes

Transversal:

07 AAT N3. SELF-DIRECTED LEARNING - Level 3. Applying the knowledge gained in completing a task according to its relevance and importance. Deciding how to carry out a task, the amount of time to be devoted to it and the most suitable information sources.

### Teaching methodology

### Learning objectives of the subject



## 230022 - PAV - Audio and Speech Processing

### Study load

Total learning time: 150h	Hours large group:	39h	26.00%
	Hours small group:	26h	17.33%
	Self study:	85h	56.67%

## 230022 - PAV - Audio and Speech Processing

### Content

(ENG) Tema 1. Introducció al processat de veu i àudio	Learning time: 2h 30m Theory classes: 2h Self study : 0h 30m
(ENG) Tema 2. El senyal de veu	Learning time: 6h 05m Theory classes: 2h Self study : 4h 05m
(ENG) Tema 3. Representacions de senyals de veu i àudio	Learning time: 21h 20m Theory classes: 5h 20m Self study : 16h
(ENG) Tema 4. Robustesa respecte a l'entorn acústic	Learning time: 25h 25m Theory classes: 8h Self study : 17h 25m
(ENG) Tema 5. Fonaments de la classificació de veu i àudio	Learning time: 16h Theory classes: 8h Self study : 8h
(ENG) Tema 6. Reconeixement de la parla	Learning time: 16h Theory classes: 8h Self study : 8h
(ENG) Tema 7. Síntesi de la parla	Learning time: 25h Theory classes: 12h Self study : 13h

## 230022 - PAV - Audio and Speech Processing

(ENG) Projecte: desenvolupament de sistema de processat de veu i/o àudio	Learning time: 30h Laboratory classes: 13h Self study : 17h
--	---

### Planning of activities

(ENG) Exercicis	
(ENG) Proves de resposta llarga (Control)	
(ENG) Presentació oral	
(ENG) Pràctica de laboratori	Hours: 0h Laboratory classes: 0h
(ENG) Altres activitats	Hours: 0h Laboratory classes: 0h
(ENG) Altres activitats	Hours: 0h Laboratory classes: 0h
(ENG) Proves de resposta llarga (Examen Final)	Hours: 0h Theory classes: 0h

### Qualification system

### Regulations for carrying out activities



## 230022 - PAV - Audio and Speech Processing

### Bibliography

#### Basic:

Huang, X.; Acero, A.; Hon, H-W. Spoken language processing: a guide to theory, algorithm and system development. Upper Saddle River: Prentice Hall, 2001. ISBN 0130226165.