

## 300313 - BCA-OA - Aircraft Communication Buses

Coordinating unit: 300 - EETAC - Castelldefels School of Telecommunications and Aerospace Engineering  
 Teaching unit: 744 - ENTEL - Department of Network Engineering  
 Academic year: 2016  
 Degree: BACHELOR'S DEGREE IN AIR NAVIGATION ENGINEERING (Syllabus 2010). (Teaching unit Optional)  
 BACHELOR'S DEGREE IN AEROSPACE SYSTEMS ENGINEERING (Syllabus 2015). (Teaching unit Optional)  
 ECTS credits: 3 Teaching languages: Catalan, Spanish

### Teaching staff

Coordinator: Jordi Mataix Oltra  
 Others: David Rincón. Rafael Vidal. Jose Yúfera

### Prior skills

Fundamentals of communications. Packet-switching communications networks. Introduction to the Internet. IP networks

### Requirements

Fundamental of communications. Aviónics

### Learning objectives of the subject

To know the communications that are used in the aircraft. Commercial and real products that are to be found in the market, to be able to evaluate its characteristics. Students have to know at the end of the course which solution is the best for each type of aircraft. They should know how to fit the communications chosen within the complete aircraft project.

### Study load

Total learning time: 75h	Hours large group:	22h	29.33%
	Hours medium group:	0h	0.00%
	Hours small group:	0h	0.00%
	Guided activities:	11h	14.67%
	Self study:	42h	56.00%



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### Content

Communications buses on aircraft

Learning time: 75h

Theory classes: 22h

Guided activities: 11h

Self study : 42h

#### Description:

Introduction. Justification. Standardization. Aircraft. Operation of networks. Temporary requirements in aircraft communications networks. Transmission Problems. Communications buses in aircraft. Standardization. DOG. AFDX. Advanced trends in aircraft communications buses. Time Sensitive Networks. Case studies. Ethernet switched. Delay in a network. CAN / Arduino.

#### Related activities:

Classes of theory. Problem resolution. Group work. Lab practices.

### Regulations for carrying out activities

Exams. Evaluation of group work. Problem resolution. Lab

### Bibliography