

820146 - TACSSE - Advanced Circuit Analysis. Signals and Systems

Coordinating unit: 295 - EEBE - Barcelona East School of Engineering
 Teaching unit: 709 - EE - Department of Electrical Engineering
 Academic year: 2016
 Degree: BACHELOR'S DEGREE IN ELECTRICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional)
 BACHELOR'S DEGREE IN ELECTRICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional)
 ECTS credits: 6 Teaching languages: Catalan, Spanish

Teaching staff

Coordinator: Juan Antonio García-Alzórriz Pardo
 Others: Juan Antonio García-Alzórriz Pardo, Juan José Mesas García

Degree competences to which the subject contributes

Specific:

1. Understand the theory of electrical circuits to an advanced level.

Transversal:

2. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 3. Communicating clearly and efficiently in oral and written presentations. Adapting to audiences and communication aims by using suitable strategies and means.

Learning objectives of the subject

Study load

Total learning time: 150h	Hours large group:	45h	30.00%
	Hours medium group:	0h	0.00%
	Hours small group:	15h	10.00%
	Guided activities:	0h	0.00%
	Self study:	90h	60.00%

820146 - TACSSE - Advanced Circuit Analysis. Signals and Systems

Content

(ENG) Tema 1. Tècniques d'anàlisis de circuits elèctrics	Learning time: 29h Theory classes: 9h Laboratory classes: 2h Self study : 18h
(ENG) Tema 2. Règim sinusoidal permanent en xarxes trifàsiques asimètriques	Learning time: 31h Theory classes: 9h Laboratory classes: 4h Self study : 18h
(ENG) Tema 3. Senyals i sistemes	Learning time: 20h Theory classes: 6h Laboratory classes: 2h Self study : 12h
(ENG) Tema 4. Anàlisi de Fourier	Learning time: 31h Theory classes: 9h Laboratory classes: 4h Self study : 18h
(ENG) Tema 5. Variable d'estat	Learning time: 39h Theory classes: 13h Laboratory classes: 2h Self study : 24h

820146 - TACSSE - Advanced Circuit Analysis. Signals and Systems

Bibliography

Basic:

Hayt, William H.; Kemmerly, Jack E.; Durbin, Steven M. Análisis de circuitos en ingeniería. 7ª ed. México D.F. [etc.]: McGraw Hill, cop. 2007. ISBN 9789701061077.

Irwin, J. David. Análisis básico de circuitos en ingeniería. 6ª ed. México [etc.]: Limusa Wiley, cop. 2003. ISBN 9681862953.

Oppenheim, Alan V.; Willsky, Alan S. Señales y sistemas. 2ª ed. México [etc.]: Prentice-Hall Hispanoamericana, cop. 1997. ISBN 970170116X.

Complementary:

The Electric circuits problem solver : a complete solution guide to any textbook. Piscataway, New Jersey: REA. Research and Education Association, cop. 1980. ISBN 0878915176.

Roberts, Michael J. Señales y sistemas : análisis mediante métodos de transformada y MATLAB. México [etc.]: McGraw-Hill, cop. 2005. ISBN 9701050673.

Dominguez, Sergio [et al.]. Control en el espacio de estado. Madrid [etc.]: Prentice Hall, cop. 2002. ISBN 8420535168.

Others resources:

Hyperlink

Apunts de l'assignatura