Université catholique de Louvain

Dynamic modelling and control of electromechanical converters

4.0 credits

LELEC2313

2012-2013

30.0 h + 15.0 h

0 h |

2q

Teacher(s) :	Dehez Bruno ; De Jaeger Emmanuel ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	Identical to description
Aims :	The course deals with the dynamical modelling of electromechanical converters and the main control strategies when they are part, as actuators, of automatic control sysytems. The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".
Content :	 Dynamic modelling and control of DC machines dynamic modelling and vector control of synchronous machines Control of brushless DC machines Control of switched reluctance machines Dynamic modelling and control of induction machines (v/f, vector control, direct torque control)
Other infos :	Support : The course relies on the book "Electromécanique, convertisseurs d'énergie et actionneurs" (Dunod ed., 2001) Prerequisites : Electromechanical convertors (ELEC1310) or Electrotechnics (ELEC2753) Assessment : Exam during the session for one part, and assessments during the year for the part "practical works"
Cycle and year of study :	Master [120] in Electrical Engineering Master [120] in Electro-mechanical Engineering
Faculty or entity in charge:	ELEC