

## Dynamic modelling and control of electromechanical converters

4.0 credits	30.0 h + 15.0 h	2q
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Teacher(s):	Dehez Bruno ; Labrique Francis (coordinator) ; Matagne Ernest ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	Identical to the contents of the course
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