AUTOMATIQUE LINÉAIRE

LINEAR CONTROL

Lecturers: **Eric BLANCO, Anton KORNIIENKO**

| Lecturers : 12 | TC : 14 | PW : 4 | Autonomy : 0.0 | Study : 2 | Project : 0.0 | Language : FR

Objectives

This course aims to identify the common features of any linear control problem: the choice of instrumentation, the expression of the specifications and the choice of the control structure. Analysis and resolution procedures are presented with pole placement (including RST control) and frequential analysis.

Keywords : Structure and Control laws, SISO Process, poursuit and regulation, reference model, pole placement, RST, frequential analysis

Programme	- Problematics - From specifications to reference model - Regulators implemetation - Empirical methods - Modelisation, a survey - Pole placement design - Frequential design
Learning outcomes	• To formulate a control problem from its specifications • To predict process temporal behaviour from poles position • To elaborate a mere control law allowing pole placement ou frequential properties • To implement a numerical regulatorf from his continous transfer
Independent study	Objectifs : This activity is not concerned with framed autonomy activities outside personal work. Méhodes : This activity is not concerned with framed autonomy activities outside personal work.
Core texts	Philippe de LARMINAT, *ANALYSE DES SYSTÈMES LINÉAIRES*, Editions Hermès, 2002 Philippe de LARMINAT *AUTOMATIQUE, COMMANDE DES SYSTÈMES LINÉAIRES*, Editions Hermès, 1993 L. MARET*RÉGULATION AUTOMATIQUE,* Presses Polytechniques Romandes, 1987
Assessment	Final mark = 90% Knowledge + 10% Know-how (Knowledge = 80% final exam + 10% TD preparation + 10% microtest / Know-how = TP + synthesis classroom)