

COURSE TITLE	TE142424: Adaptive and Predictive Control Systems Credits: 2 ELECTIVE COURSE
LEARNING OBJECTIVES	Students are able to analyze and design the adaptive and predictive control system.
COMPETENCY	<ul style="list-style-type: none"> • The students have the ability to analyze the adaptive and predictive control system. • The students have the ability to design the adaptive and predictive control system.
SUBJECTS	<ul style="list-style-type: none"> • Introduction to adaptive control • Direct and indirect adaptive control • Model Reference Adaptive (MRA) Control • Self Tuning Adaptive Control • Model Based Predictive Control (MPC) • Elements and Algorithms of MPC • Generalized Predictive Control
MAIN REFERENCES	<ul style="list-style-type: none"> • Astrom, KJ and Wittenmark, B.: <u>Adaptive Control</u>, Addison-Wesley, 1997 • Landau, ID: <u>System Identification and Control Design</u>, Prentice-Hall, 1990 • Camacho, Eduardo F. And Bordons Carlos,: Model Predictive Control”, Springer-Verlag, London, 1999. • <u>Mosca, Edoardo, Optimal, Predictive dan Adaptive Control</u>
OPTIONAL REFERENCES	<ul style="list-style-type: none"> • Sastry, S. and Bodson, M: <u>Adaptive Control Stability, Convergence and Robustness</u>, Prentice-Hall Advanced Reference Series, 1989
PREREQUISITE	-