Disciplina: PHYSICS BASED MODELING FOR COMPUTER CONTROL

PMCC	4 Créditos
Ementa:	Discrete time physical system modeling using latched input response for physically cross-coupled state variable models including variable sampling capability. Classical, fixed sampling impulse modeling using Laplace/Ztransform methods. System response calculations, direct design methods, root locus design methods, command feedforward tracking methods, disturbance input decoupling design methods, and cascade control methods including multi-rate sampling systems. Control processor interfaces, feedback sensor & interface issues, open and closed loop observers, controller design including correct consideration of computational delays, discrete time system identification methods, and structured approaches for sequential logic design.
Bibliografia	Bollinger, J. G. and Duffie, N. A.Computer Control of Machines and Processes. Addison Wesley, 1988. Ogata, K. Discrete Control Systems. 2nd Ed. Prentice Hall. 1995. Astrom, K. J. Adaptive Control. 2nd Ed. New York: Addison Wesley. 1995. Hemerly, E. M. Controle por Computador de Sistemas Dinâmicos. 2ª Ed. Edgard Blûcher. 2000.