Dr. Carlos A. Smith
Professor

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Education:
Ph.D. Louisiana State University, 1972

Research Interests: *Automatic process control, dynamic process modeling, process engineering*

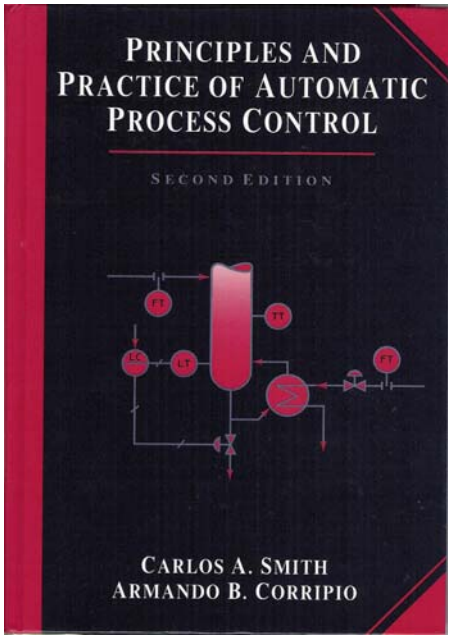
Control of Nonlinear Processes Using Fuzzy Logic

The importance and difficulty of the control of nonlinear processes is well known. This research looks into the use of fuzzy logic as a tool to improve the control of these processes. Specifically, the use of fuzzy logic to improve the performance of the classical PID controller has already resulted in four new versions of self-tuned PID's. This research is presently looking into enhancing the performance of Sliding Mode Controllers, Dynamic Matrix Controllers, and Internal Model Controllers.

Faculty / Industry Collaborations: N/A
Current Funding: Internal

General Area / Focus: Fuzzy logic/nonlinear processing

Application(s): The use of fuzzy logic as a tool to improve the control of these nonlinear processes.



Dr. Carlos Smith is the first author of this widely used text for undergraduate chemical engineering courses on process control