
## Marianthi G. Ierapetritou

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## Biographical Sketch:

Marianthi Ierapetritou is an Associate Professor in the Department of Chemical and Biochemical Engineering at Rutgers University in Piscataway, New Jersey. She obtained her BS from National Technical University in Athens, Greece, her PhD from Imperial College (London, UK) in 1995 and subsequently completed post-doctoral research at Princeton University (Princeton, NJ) before joining Rutgers University in 1998. Among her accomplishments is the Board of Trustees Research Fellowship for Scholarly Excellence that recognizes faculty members who have recently been promoted to associate professor with tenure and whose work shows exceptional promise, and the prestigious NSF CAREER award. Recently Dr. Ierapetritou was elected a Trustee of the CACHE, the leading organization within the Chemical Engineering community promoting computational applications.

Dr. Ierapetritou's research focuses on the following areas: 1) **Process operations** involving scheduling, planning and supply-chain management comprising of deterministic and stochastic approaches; (2) **design and synthesis of flexible manufacturing systems** that includes uncertainty analysis, process synthesis, and optimization algorithmic development; 3) **modeling of reactive flow processes** involving reduction of complex reaction systems appearing in combustion and environmental systems, and integration of detailed chemistry with complex flow simulations; and 4) **metabolic engineering** for optimizing liver-cell functionality.

She has published 64 papers in first rated journals and presented in national and international conferences (70 presentations). She was invited to present her work in a number of universities and conferences around the world (35 invitations). She is an active member of AIChE and currently the program coordinator for Systems and Process Design. She is also a member of INFORMS and SIAM and she active participant in the scientific advisor committees of ESCAPE 16, 17 and PSE 2006. At Rutgers she is currently the director of undergraduate studies, restructuring the curriculum and the capstone design course. Moreover she is responsible for web coordination, and member of admissions, recruitment and student discipline committees.

She is an active educator both in the classroom teaching graduate and undergraduate classes in the Chemical Engineering department and as an advisor currently supervising the Ph.D. of 8 students. Moreover, she extensively supports the participation of undergraduates in research during the academic year and as summer interns. At least two undergraduate students are working in her lab every semester. Her research work is supported by federal (NSF, ONR, PRF) and industrial support (Pfizer, ExxonMobil, BOC).