



Seminar

A Process Systems Engineering Perspective to Advanced Pharmaceutical Manufacturing

Prof. Marianthi Ierapetritou

Gore Centennial Chair

*Department of Chemical and Biomolecular Engineering
University of Delaware (USA)*

Continuous manufacturing (CM) has been recognized as an emerging technology by the US Food and Drug Administration (FDA) and other regulatory agents around the world for its potential to improve agility, flexibility, and robustness in pharmaceutical manufacturing, which is important for solving the drug shortage problems.

Pharmaceutical companies are actively working on implementing continuous processing technology for both legacy and new products. While approaches to implement CM technology may vary among practitioners, a consensus is rapidly emerging regarding the importance of understanding process dynamics to achieve reliable process performance and ensure acceptable product quality. In recent years, a growing number of industrial and academic research groups have examined the dynamics of continuous pharmaceutical equipment using established process systems engineering methods.

Friday September 13th 2019, h. 14:00

Room ICh1 "I. Sorgato" – Department of Industrial Engineering, via Marzolo 9, Padova

Prof. Ierapetritou biosketch

Doctorate – 1995 Imperial College, London, UK

Diploma – 1991 National Technical University of Athens, Greece

Marianthi Ierapetritou is the Gore Centennial Chair in the Department of Chemical and Biomolecular Engineering at the University of Delaware. Dr. Ierapetritou's research focuses on the following areas: 1) process operations; 2) design and synthesis of flexible production systems focusing on pharmaceutical manufacturing; 3) energy and sustainability process modeling and operations; and 4) modeling of biopharmaceutical production. Her research is supported by several federal (FDA, NIH, NSF, ONR, NASA) and industrial (BMS, J&J, GSK, PSE, Bosch, Eli Lilly) grants. Among her accomplishments are the 2016 Computing and Systems Technology (CAST) division Award in Computing in Chemical Engineering, the highest distinction in the Systems area of the American Institute of Chemical Engineers (AIChE), the Award of Division of Particulate Preparations and Design (PPD) of The Society of Powder Technology, Japan; the Outstanding Faculty Award at Rutgers; the Rutgers Board of Trustees Research Award for Scholarly Excellence; and the prestigious NSF CAREER award. She has also been appointed as a Consultant to the FDA under the Advisory Committee for Pharmaceutical Science and Clinical Pharmacology, elected as a fellow of AIChE and as a Director in the board of AIChE. She has more than 250 publications, and has been an invited speaker to numerous national and international conferences. Dr. Ierapetritou obtained her BS from The National Technical University in Athens, Greece, her PhD from Imperial College (London, UK) in 1995 and subsequently completed her post-doctoral research at Princeton University (Princeton, NJ). Prior to joining the University of Delaware, Prof. Ierapetritou was a Distinguished Professor and Associate Vice President for the Promotion of Women in Science, Engineering, and Mathematics at Rutgers University.

Information contact: Dr. Pierantonio Facco (pierantonio.facco@unipd.it)