

Control Systems — Concepts and Insights for Managerial Decision Making

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Abstract

Control science is the only rigorous approach for effective decision making in complex dynamical systems! This maxim is relevant beyond the realm of engineered systems, even if its universality is not appreciated by all control scientists and engineers. In this paper I discuss the application of control concepts to managerial decision making—which encompasses decision making for business strategy, social change, and a sustainable ecosystem. Several “insights” derived from control science and engineering are presented for managers and other decision makers.

Biosketch



Tariq Samad leads the Management of Technology program at the Technological Leadership Institute, University of Minnesota. He joined TLI in 2016 after a 30-year career with Honeywell, retiring as Corporate Fellow. At Honeywell he led technology developments in automation and control for the process industries, homes and buildings, advanced manufacturing, aerospace, and automotive sectors. He is a past president of the American Automatic Control Council and the IEEE Control Systems Society. He is a Fellow of IEEE and IFAC and the founding chair of the IFAC Industry Committee. His publications include the *Encyclopedia of Systems and Control* (co-editor-in-chief, Springer). He is the editor for a book series on “Technology Management, Innovation, and Leadership” (John Wiley & Sons / IEEE Press).