

Single-Stage Resource Allocation and Economic Lot Scheduling on Multiple, Non-Identical Production Lines

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Abstract

The talk focuses on the simultaneous resource allocation, lot-sizing and scheduling in a multi-machine, deterministic ELSP environment. The objective is to minimize the long-run average production, setup, inventory, and shortage penalty costs. We develop a concave minimization model of the problem, generate heuristic solutions, lower bounding methods and present computational results.

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Bio for Dr. Ramesh Bollapragada

Ramesh Bollapragada is a Professor in the Decision Sciences department of the College of Business, San Francisco State University, CA, USA. In a span of 9 years since joining the college of business, he was promoted from Assistant Professor to Associate Professor with tenure, and from Associate Professor to Full Professor. Prior to joining SFSU in 2002, he was a Research Scientist at Bell Laboratories, Lucent Technologies in Holmdel, NJ for six years. Dr. Bollapragada has a B.Tech. and M.S. in Electrical & Electronics Engineering from India and a M.S. and Ph.D. in Management of Manufacturing and Automation from the Graduate School of Business at Carnegie Mellon University, Pittsburgh, U.S.A. His research interests are in the areas of scheduling and economic lot-sizing, forecasting, inventory and supply chain optimization, telecommunication network planning, and outsourcing.

Ramesh received several academic awards and several management awards during his industrial career: Some important ones include, the distinguished faculty award, “Research professor of the University (2014) given across over 1000 faculty at his university” and the “Research Professor of the Year for two consecutive years (2004-2005 and 2005-2006)” at the College of Business- SFSU, and few United States Patents at Bell Labs, Lucent. Ramesh’s work was a Semi-finalist for the Franz Edelman Award in 2008-2009, Finalist for the Wagner Prize in 2003-2004, and his group at Bell Labs, Lucent Technologies, helped win the INFORMS Prize for the company in 1998. While at Bell Labs, he received outstanding awards from the Bell Labs President, for his performance on several projects. After joining academia, he was a visiting professor to top universities in the United States (e.g. Haas School of Business, University of California-Berkeley, Carnegie Mellon University, Pittsburgh), France (HEC School of Management, Paris), India (IIM-Ahmedabad), Italy (Politecnico Di Torino), Finland (Helsinki School of Economics), Ireland (Cork Constraint Computational Center). He has been invited to give talks at Stanford University, U.C. Berkeley, and at several companies including the Research group at Google’s Headquarters. To date, Ramesh has visited over 25 countries on research, teaching and leisure. He has guided over 25 MBA thesis projects in the college of business at SFSU. Ramesh has presented at over twenty international conferences in U.S. and Europe, and has published over 16 journal articles in international journals such as: *Management Science*, *Interfaces*, *Naval Research Logistics*, *Inform Journal of Computing*, *IIE Transactions on Scheduling and Logistics*, *European Journal on Operational Research*, *Decision Sciences*, *OR*

Letters, International Journal of Production Research, Transportation Journal, Journal of Mathematical Finance.