



Mathematical Modeling, Simulation and Optimization -2012

July 20, 2012

ADVANCE INFORMATION

INTRODUCTION

The merging of optimization and simulation technologies has seen a rapid growth in recent years. A Google search on "Simulation Optimization" returns more than five thousand pages where this phrase appears. The content of these pages ranges from articles, conference presentations and books to software, sponsored work and consultancy. This is an area that has sparked as much interest in the academic world as in practical settings. Through this conference, we will focus on some of the most relevant approaches that have been developed for the purpose of optimizing simulated systems.

The optimization of simulation models deals with the situation in which the analyst would like to find which of possibly many sets of model specifications (i.e., input parameters and/or structural assumptions) lead to optimal performance. For instance, a simulation model of a manufacturing facility may include factors such as number of machines of each type, machine settings, layout and the number of workers for each skill level. The responses may be cycle time, work-in-progress and resource utilization.

In the world of optimization, the factors become decision variables and the responses are used to model an objective function and constraints. Whereas the goal of experimental design is to find out which factors have the greatest effect on a response, optimization seeks the combination of factor levels that minimizes or maximizes a response. In the context of simulation optimization, a simulation model can be thought of as a "mechanism that turns input parameters into output performance measures". Viewing a simulation model as a function has motivated a family of approaches to optimize simulations based on response surfaces and metamodels.

OBJECTIVES OF MMSO-2012

Developments in the field of Engineering and Technology are based on scientific principles and theories which are best described with the help of Mathematics. The aim of this Conference is to bring together Eminent Mathematicians, Engineers and Scientists working in this challenging and thrust areas of Mathematical Sciences and their applications to provide young researchers an opportunity to become well informed about the current developments in Mathematical Modeling, Simulation and Optimization. We do hope that active involvement of prominent speakers, delegates and young research scholars and their innovative ideas will create a stimulating atmosphere for further active development of multidisciplinary and convergent research in these areas.

The Academic Program of the Conference will consist of Plenary Session, Invited talks, Poster Presentations and Paper Presentations.

IMPORTANT DATES

Submission of Abstract	:	01 May, 2012
Notification of acceptance to the submitted abstracts	:	15 May, 2012
Registration Deadline	:	25 May, 2012
Submission of Full Length Paper	:	10 June, 2012
Conference	:	20 July, 2012

CALL FOR PAPERS

Original contribution and review article on a topic related to Mathematical Modeling, Simulation and Optimization in Engineering and Technology are invited. Authors have to send abstracts (not exceeding 300 words) with font size of 12 (in Times Roman only), title in bold letters and names of Authors along with address by email at mmso2012@chitkara.edu.in

CONFERENCE THEMES

- Mathematical Modeling
- Operation Research
- Optimal Control Theory
- Probability and Stochastic Models
- Queuing Theory
- Performance Modeling
- Reliability and Availability
- Simulation
- Industrial Mathematics

REGISTRATION

For participation in the Conference, one author per paper must register and submit the registration form duly filled in along with the registration fee by a demand draft drawn in the favor of Chitkara Educational Trust.

Delegate Type	Delegate	Registration Fee
A	Industry/Govt.	Rs 1000/-
B	Faculty	Rs 1000/-
C	Research Scholars/Students	Rs 750/-

The participants/delegates are requested to make their own arrangements for travel, boarding and lodging. For further assistance, kindly contact the Organizing Committee.

ORGANIZING COMMITTEE

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Detailed Brochure will follow soon.