

Presenter

Michael Carter is Professor in the Dept. of Mechanical and Industrial Engineering at the University of Toronto and Director of the Healthcare Resource Modeling Lab.



For more than one decade, his research interests have been primarily focused on healthcare resource modelling. He has been involved in a variety of projects in hospitals, home care, rehabilitation, long term care, medical labs, and mental health institutions. Current projects include forecasting waiting lists in Ontario, operating room management and scheduling, allocation of HIV prevention resources, patient flow and capacity modelling, and cancer patient processing.

Prof. Carter has cooperated with a number of hospitals in Toronto including the Sunnybrook Health Sciences Centre, the Toronto Hospital, the Mount Sinai Hospital, and the Hospital for Sick Children.

Prof. Carter is a member of the "Nursing Effectiveness, Utilization and Outcomes Research Unit" and a mentor in the "Health Care, Technology and Place Program" at the University of Toronto. He is also an Adjunct Scientist with the Institute for Clinical Evaluative Sciences in Toronto.

Prof. Carter is a three time recipient (1988, 1992, 1996) of the Annual Practice Prize from the Canadian Operational Research Society (CORS). In 2000, he received the CORS Award of Merit for lifetime contributions to Canadian Operational Research. He also received an "Excellent in Teaching" Award from the University of Toronto Student Administrative Council. He is a member of the editorial board of the "Journal of Scheduling" and of the journal "Health Care Management Science".

Operations Research in Hospitals

Health care systems all over the world are in the midst of a serious financial crisis, and the situation will likely get worse in the next few years. Demand is growing as the population ages, health human resources are becoming critical, and costs are increasing as the drugs and tech-

nologies continue to get more complex and expensive. Of course, it would help if there were more money available. However, hospitals could be run a lot more efficiently. Operations Research is the discipline of applying quantitative methods to help make better decisions. Operations Research tools can help hospitals improve quality, reduce costs, improve effectiveness and increase efficiency. The objective of the tutorial is to introduce a few concepts from Operations Research and quantitative analysis in the health care sector. An overview of some potential areas of application will be provided and illustrated with a variety of techniques including performance measurement, simulation modelling, scheduling, queuing, forecasting, and mathematical programming.

Program

09:00-11:00 Introduction

- The role of hospitals within the health care system
- The importance of measuring performance and introduction to some measurement techniques

11:00-11:15 Coffee break

11:15-12:30 Patient flow and simulation modelling

- Issues of patient flow within the hospital
- Examples of using simulation to improve patient flow through hospitals

12:30-13:30 Lunch

13:30-15:00 Operating room scheduling

- The role and impact of scheduling within the hospital
- Examples of operating room scheduling
- The use of priorities to manage waiting lists effectively

15:00-15:30 Coffee break

15:30-17:00 Demand and capacity management

- The relationship between available resources in hospitals and expected demand for service
- Forecasting methods to determine future demand
- The use of queuing models for hospital planning
- Hospital bed capacity planning

Contact

For organizational questions contact

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Stamp
here

**Gesellschaft für Operations Research
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Am Steinknapp 14 b
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Germany**

Saarbrücken: September 4, 2007

G O R T u t o r i a l 2 0 0 7
Operations Research in Hospitals

preceding the

International Scientific Annual Conference
Operations Research 2007
Saarbrücken, September 5 - 7



Science Park II

Please register until August 24 by sending the form below by mail or email to gor@ruhr-uni-bochum.de or by fax to + 49 (0) 234 / 462245.

Note: The number of participants is limited.

Registration fee for the Tutorial of the GOR:

- GOR member (150,- €)
- Non-member (400,- €)

Surname

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Organization

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Location

Universität des Saarlandes
Science Park II
Building D1 2
66123 Saarbrücken

Directions



Further Information

Information about the city of Saarbrücken and accommodations as well as maps of the city and of the campus can be found on the conference's web site

www.or2007.de

For information concerning the GOR you may visit

www.gor-online.de



GOR

Tutorial 2007

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Preceding the International Scientific Annual Conference Operations Research 2007

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