

International Conference on Health Care Systems Engineering

Milan, San Raffaele Congress Centre, Ospedale San Raffaele, Italy

May 22-24, 2013

hcse2013.mecc.polimi.it

Conference program

Wednesday, May 22nd

14h30	Opening
14h45	<u>Keynote presentation</u> Emerging Needs and Future Perspectives of Italian Home Care Providers <i>Dr. G. Scaccabarozzi</i> , Dipartimento Interaziendale della Fragilità, ASL/AO of Lecco, Italy.
15h45	Coffee break
16h00	<u>Technical session 1</u> Home Care Services Delivery: Equity Versus Efficiency In Optimization Models <i>P. Cappanera, M. G. Scutellà, F. Visintin</i> Redesigning Organ Allocation Boundaries for Liver Transplantation in the United States <i>C.H. Chen, N. Koizumi, R. Ganesan, M. Gentili, N. Waters, D. Das Gupta, D. Nicholas, A. Patel, D. Srinivasan, K. Melancon</i> A Routing Problem for Medical Test Sample Collection in Home Health Care Services <i>Y. Kergosien, A. Ruiz, P. Soriano</i>
17h30	Coffee break
17h45	<u>Technical session 2</u> Applying the Cardinality-Constrained Approach in Healthcare Systems: The Home Care Example <i>E. Lanzarone, G. Carello</i> Synchronization between human resources in Home Health Care context <i>M. Di Mascolo, M.L. Espinouse, C.E. Ozkan</i> A Two-Stage Approach for Solving Assignment and Routing Problems in Home Health Care Service <i>S. Yalcindag, A. Matta, E. Sahin, J.G. Shanthikumar</i>
19h30	Dinner
21h30	End of the first day

Thursday, May 23rd

08h30

Keynote presentation

Mathematical modeling of healthcare engineering problems

Prof. X. Xie, Industrial Engineering and Health Care Engineering Departments, Ecole Nationale Supérieure des Mines, Saint Etienne, France

09h30

Coffee break

09h45

Technical session 3

Optimizing Efficiency and Operations at a Large California Safety-Net Endoscopy Center: A modeling and simulation approach

L.W. Day, D. Belson, M. Dessouky, C. Hawkins, M. Hogan

Simulation-Based Optimization of Patient Flow in Elective Surgery

T. Taurino, D. Antonelli, G. Bruno

Analysis of Gastroenterology (GI) Clinic: A Systems Approach

J. Li, X. Zhong, J. Song, S.M. Ertl, L. Fiedler

11h15

Coffee break

11h30

Technical session 4

Operating Room Joint Planning and Scheduling

N. Bulgarini, D. Di Lorenzo, A. Lori, D. Matarrese, F. Schoen

Investigating the Relationship Between Resources Balancing and Robustness in Master Surgical Scheduling

P. Cappanera, C. Banditori, F. Visintin

Risk-Aware Scheduling of Elective Surgeries

G. Dellino, C. Meloni, M. Pranzo

13h00

Lunch

14h00

Technical tour in the hospital

15h30

Technical session 5

A Robust Optimization Approach for the Operating Room Planning Problem with Uncertain Surgery Durations

B. Addis, G. Carello, E. Tànfani

The Methodological Approach to Process Analysis for Robotic Surgical Procedures: The Experience of SAFROS and I-SUR Projects

R. Dodi, E. Oleari, A. Sanna

Expert's Evaluation of Innovative Surgical Instrument and Operative Procedure Using Haptic Interface in Virtual Reality

G. Thomann, D.M. Pan Nguyen, J. Tonetti

17h00

Coffee break

17h15	<u>Technical session 6</u> Epidemic State Estimation with Syndromic Surveillance and ILI data using Particle Filter <i>T. Lee, H. Shin</i> A Whole-System Approach To Identify The Sources of Variation In Patient Flow <i>N. Arbabzadeh, K. Seyed, M.A. Jafari</i> A Broader View on Health Care System Design and Modelling <i>N. Vandaele, C. Decouttere</i>
18h45	End of the second day
19h30	Bus to dinner place

Friday, May 24th

09h00	<u>Technical session 7</u> Analyzing the impact of Lean Approach in Pharmaceutical Supply Chain <i>A. Portioli Staudacher, A. Bush</i> A Decision-Making Approach Supporting Hospital Drug Logistics <i>A.C. Cagliano, S. Grimaldi, C. Rafele</i> Portable Optokinetic Stimulator for Vestibular Rehabilitation <i>C.P. Malça, F. Moita, I. Araújo</i>
10h30	Coffee break
10h45	<u>Technical session 8</u> Using Simulation to Analyze Patient Flows in a Hospital Emergency Department in Hong Kong <i>O. Rado, B. Lupia, J.M.Y. Leung, Y.H. Kuo, C.A. Graham</i> Modeling and Simulation of a French Extended White Plan: A hospital Evacuation Before a Forecasted Flood <i>A. Guinet, A. Ruiz, W. Chen</i> Managing a Fleet of Ambulances to Respond to Emergency and Transfer Patient Transportation Demands <i>Y. Kergosien, M. Gendreau, A. Ruiz, P. Soriano</i>
12h15	Open discussion on future conferences and activities
12h45	Lunch
14h00	Closure & Social event

Scientific committee

- **John FOWLER**
Chair (FSC) & Professor
Arizona State University
- **Ettore LANZARONE**
Researcher
Istituto di Matematica Applicata e Tecnologie Informatiche (IMATI), Consiglio Nazionale delle Ricerche (CNR)
- **Jingshan LI**
Associate Professor
College of Engineering, University of Wisconsin-Madison
- **Andrea MATTA - *conference chair***
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Dipartimento di Meccanica, Politecnico di Milano
- **Evren SAHIN**
Associate Professor
Laboratoire Génie Industriel, Ecole Centrale Paris
- **Alberto SANNA**
Researcher
e-Services for Life & Health Director, Ospedale San Raffaele

Local organising committee

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- **Semih YALCIDAG**
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- **Alberto SANNA**
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- **Elettra OLEARI**
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- **Riccardo DODI**
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