Call for Chapters

Book on:
"Engineering and Management of IT-based Service Systems: an Intelligent Decision-making Support Systems Approach"

Book series:
"Intelligent Systems Reference Library"
Springer-Verlag, London Ltd
http://www.springer.com/series/8578

BOOK'S RATIONALE:

A service economy has been recognized as the dominant paradigm in present times (Chesbrough and Spohrer 2006). Such a service-oriented worldview demands new engineering and management scientific (both fundamental and applied) knowledge to cope with the planning, design, building, operation and evaluation (including the disposal of non adequate) IT-based service systems (IfM and IBM 2008).   Such challenges emerge from the paradigm shift from a product-based manufacturing economy to this new service-oriented one (Dermikan et al. 2011). In turn, Intelligent Decision-Making Support Systems (i-DMSS) are specialized IT-based systems that support some or several phases of the individual, team, organizational or inter-organizational decision making process by deploying some or several intelligent mechanisms (Forgionne et al. 2002; Phillips-Wren et al. 2009). In particular, Artificial Intelligence (AI) has been recognized as a significant enhancement tool for DMSS (Goul et al. 1992; Eom, 1998) since several decades. However, the utilization of i-DMSS for engineering and management of IT-based service systems is still scarce. We believe that fostering its research and utilization is relevant and needed for advancing the progress of IT-service systems. Consequently, in this book will pursue to following academic aims: (i) generate a compendium of quality theoretical and applied contributions in Intelligent Decision-Making Support Systems (i-DMSS) for engineering and management IT-based service systems (ITSS); (ii) diffuse scarce knowledge about foundations, architectures and effective and efficient methods and strategies for successfully planning, designing, building, operating, and evaluating i-DMSS for ITSS, and (iii) create an awareness of, and a bridge between ITSS and i-DMSS academicians and practitioners in the current complex and dynamic engineering and management ITSS organizational (Mora et al. 2011).

References:

Chesbrough, H. and Spohrer, J. (2006). A research manifesto for services science. Communications of the ACM. 49(7). 35–40.

Dermikan, H., Spohrer, J. and Krishn, V. (2011). Introduction of the Science of Service Systems. In: H. Demirkan, J. Spohrer, and V. Krishna (Eds). The Science of Service Systems. Service Science: Research and Innovations in the Service Economy Series, Springer, New York, 1-10.

Eom, S. (1998). An Overview of Contributions to the Decision Support Systems Area from Artificial Intelligence. *Proceedings of the AIS Conference* (1998), Baltimore, MA, USA, August 14-16.

Forgionne, G.A., Gupta, J. N. D., Mora, M. (2002). Decision making support systems: Achievements, challenges and opportunities: In : Mora, M., Forgionne, G., Gupta, J.N.D. (Eds.) :*Decision making support systems: achievements and challenges for the new decade*. Idea Group, Hershey, PA, 392-403.

Goul, M., Henderson, J., Tonge, F. (1992). The Emergence of Artificial Intelligence as a Reference Discipline for Decision Support Systems Research. *Decision Sciences*, 23, 1263-1276.

IfM and IBM. (2008). Succeeding through Service Innovation: Developing a Service Perspective for Education, Research, Business and Government. Cambridge, UK: University of Cambridge Institute for Manufacturing.

Mora, M., O'Connor, R., Raisinghani, M., Macias-Luevano, J. & Gelman, O. (2011). An IT Service Engineering and Management Framework (ITS-EMF). International Journal of Service Science, Management, Engineering and Technology (IJSSMET), 2(2), 1-16.

Phillips-Wren, G., Mora, M., Forgionne, G., and Gupta, J. (2009). An Integrative Evaluation Framework for Intelligent Decision Support Systems. European Journal of Operational Research (EJOR), 195(3), 642-652.

TOPICS OF INTEREST:

High quality fundamental or applied research-oriented chapters are welcome on the following key topics:

Section I. Foundations on IT-based Service Systems

Topics: fundamental concepts, models/architectures, frameworks/schemes or theories for planning, designing, building, operating or evaluating IT-based service systems using i-DMSS.

Section II. Cases on Engineering and Management of IT-based Service Systems supported by i-DMSS

Topics: cases of innovative real or potential (proof of concept) i-DMSS applications for supporting the planning, designing, building, operating or evaluating of IT-based service systems in the main service domains such as: financial, legal, healthcare, logistics, educational, and military. AI-based technologies as such: logic rule-based systems, ontology-based systems, machine learning techniques, multi-agent systems techniques, neural networks systems, fuzzy logic systems, cased-based reasoning systems, genetic algorithms techniques, data mining algorithms, intelligent agents, user intelligent interfaces among others are welcome.

Section III. Trends and Challenges on Engineering and Management of IT-based Service Systems supported by i-DMSS

Topics: emergent AI-based technologies, integrations of these technologies, and the implications, challenges and trends for supporting the individual, team, organizational or inter-organizational decision-making processes applied to IT-based service systems, from a technical and organizational perspective.

IMPORTANT DATES:

- **June 30, 2012** – submission deadline of a 3-page chapter proposal including title, authors and their affiliations, and a 500-word abstract (chapter goal, problem statement, main related work, research method, and expected contributions), and a list of main references.
- **July 31, 2012** – notification deadline of accepted chapter proposals for its full elaboration.
- **September 31, 2012** – submission deadline of first version of full chapters.
- **November 15, 2013** – notification deadline of editorial results (definitively accepted chapter, conditioned chapter, or definitively rejected chapter).
- **February 28, 2013** – submission deadline of second improved version of conditioned chapters.
- **March 31, 2013** – notification deadline of definitive editorial decision on conditioned chapters.
- **April 15, 2013** – submission deadline of camera-ready versions of accepted chapters**.**
- **November to December 2013** – estimated publishing period**.**

SUBMISSION PROCESS:

Interested authors, please send your 3-page chapter proposal before or on **June 30, 2012**, to Dr. Manuel Mora at mmora@securenym.net with copy to dr.manuel.mora.uaa@gmail.com. Each chapter proposal will be evaluated by book guest co-editors with support of senior experts in the specific themes. Tentative accepted proposals will be asked to be fully elaborated for their first academic evaluation. It will be realized in a blind-mode by at least two external reviewers. Conditioned chapters will have an additional opportunity for being improved and evaluated. In the second evaluation, a definitive editorial decision among: accepted or rejected will be reported. All of the accepted chapters must be submitted according to the Editorial publishing format rules timely. Instructions for authors can be downloaded at:
http://www.springer.com/cda/content/document/cda_downloaddocument/T1-book.zip?SGWID=0-0-45-392600-0

EDITORS:

Manuel Mora, EngD, Autonomous University of Aguascalientes, Mexico
Jorge Marx Gómez, PhD, Oldenburg University, Germany
Leonardo Garrido, PhD, Tecnológico de Monterrey, Campus Monterrey, México
Francisco Cervantes-Pérez, PhD, CCADET, UNAM, México