



GLOBAL CLEANER PRODUCTION
AND SUSTAINABLE CONSUMPTION
CONFERENCE

SITGES, BARCELONA, SPAIN
1-4 NOVEMBER

2015

First Call for Papers

Workshop

Theory and Applications of Operations Research for Sustainability

Nov 2-3, 2015 - Barcelona, Spain

Sponsored by

International Federation of Operational Research Societies - IFORS

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Ernesto DR Santibanez Gonzalez and Nelson Maculan

Co-chairs

Alexander Dolgui, Carlos Bana e Costa, Erwin Pesch, Joseph Sarkis, Lenny Koh

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“By 2050, humanity could devour an estimated 140 billion tons of minerals, ores, fossil fuels and biomass per year – three times its current appetite – unless the economic growth rate is “decoupled” from the rate of natural resource consumption.” UNEP, 2011.

Sustainable development is a rich area for academic research that is still in its infancy and has the potential to affect future government policy, current production operations, and identify new business models (Linton, Klassen, & Jayaraman, 2007). To help to accelerate the process in the societal transformation journey, prospective authors are challenged to integrate qualitative and quantitative approaches to address the numerous issues involved in Cleaner Production and Sustainable Consumption of goods and services in the context of global climate change realities. In that context, much work is needed in researching and applying ways to make effective and equitable transitions to sustainable, post-fossil carbon societies.

From a practical point of view, sustainability concepts help businesses reduce risk, avoid waste generation, increase material and energy efficiency, and innovate by creating new and environmentally friendly products and services. It is a process by which companies integrate their economic, social and environmental objectives into their business strategies and optimize the balance between these three dimensions (Székely & Knirsch, 2005).

As part of the Global Cleaner Production and Sustainable Consumption Conference, this workshop is designed to bring new theory and applications of different Operation Research (OR) and Management Sciences (MS) techniques and methodologies in the domain of sustainability, and at the same time to identify challenges and opportunities for future research. With regard to OR/MS, we will use scientific approaches to support decision-making in complex systems (Altay & Green, 2006). We focus mainly, but not exclusively, on analytical techniques as these constitute the main approaches by which decision support systems and tools for complex systems such as the development of a sustainable society require. These techniques include

simulation, optimization, and probability and statistics, and soft OR techniques and methodologies from OR's sister areas like decision theory, systems dynamics, multi-criteria decision making, and expert systems.

This 2-day workshop was designed to help to close the gaps among the past, present and future strategic, tactical and operational concepts and approaches to achieve sustainable societies. To achieve these objectives we will integrate qualitative and quantitative methods and tools from Operations Research and Computer Science, to develop and implement the strategies and roadmaps to sustainable future societies. Overall, the OR/MS research community has just started to develop models to deal with the "people" performance measure. This creates an excellent research opportunity for the OR/MS to make important contributions in the near future by analyzing ways to help corporations and regional societal grouping to achieve the triple bottom line objectives (Tang & Zhou, 2012).

We challenge researchers to submit papers pertaining to cutting-edge developments, concepts, practices and research, which combine qualitative and quantitative approaches, which can assist decision-makers to envision, construct and support equitable, sustainable societies. Authors should design their research within the context of existing relevant theories and they are also encouraged to modify, expand present theories and/or to develop new theories that may evolve as a result of their research. It is anticipated that their findings will be applicable to and supporting the transitions to sustainable, equitable, post-fossil carbon societies.

Therefore, papers, which examine emerging practices and new concepts in developed, and developing economies, are invited. Methodologies adapted in these studies may be built upon mathematical models or simulations, and should also build upon real world findings and in-depth case studies, or be based upon empirical survey-based research.

Submissions guidelines can be found in this link: <http://www.cleanerproductionconference.com/submit-abstract.asp>.

Please submit abstracts for presentations using the [online submission form](#) selecting this workshop. All abstracts will be refereed. Deadline for extended abstract submission is April 17, 2015.

If you have any doubt or require further information please e-mail: santibanez.ernesto@gmail.com quoting the workshop title.

Further information regarding the Global Cleaner Production and Sustainable Consumption Conference can be found in the following link: <http://www.cleanerproductionconference.com/>

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