

IEEE Transactions on Engineering Management
Special Issue Call for Papers
Engineering Management and Sustainability

IEEE Transactions on Engineering Management is sponsoring a special issue on sustainable technology and engineering management research and practice.

Over the past three decades, the topic of sustainability has generated considerable attention in society. Environmental and social concerns intertwined with economic development make sustainability a complex issue for nations, industries, and communities. These dimensions of sustainability go beyond the past or current study of organizations, but require consideration of inter-generational and inter-organizational issues. According to The World Business Council for Sustainable Development, organizations need to be able to meet the requirements of the present without compromising the ability of future generations to meet their needs. Thus, a balance of the ‘triple-bottom-line’ of social, environmental and economic issues along with concerns for future generations, are important characteristics of sustainability.

Sustainability has traditionally placed limits on organizations. More recently, it has become a source of inspiration and innovation. Organizations have initiated efforts to design their business models on the basis of sustainability. Sustainability and sustainable practices have become critical concerns for engineering managers within organizations. A variety of internal and external issues related to sustainability have emerged as important. Health, safety, and security of workers are examples of social dimensions that need to be managed internally. Product and process design for environment, environmental management system implementation and monitoring, green technology and innovation management and investment, are examples of internal environmental concerns facing managers. Externally, managers need to help their organizations to develop and build community ties, contribute to various social programs,

manage in an evolving green technology policy environment, and maintain ethical practices in emerging and developing nations. Sustainability, therefore, requires new expertise and new skills in organizing, collaborating and communicating – both internally and externally. These examples illustrate the aspects requiring engineering management education and knowledge development. The scope of this call for papers is necessarily broad to provide flexibility to researchers for developing topics and manuscripts on this evolving and emergent topic.

The following is a list of comprehensive, but not necessarily exhaustive, set of topics:

1. Management of green technology including technology transfer and diffusion of green technology within and across companies and industries.
2. Collaborative innovation for sustainability (partnerships between academia, governments, and private industry). How should organizations advance on the “innovation ladder” from simple, one-dimensional innovation to complex, societal innovations?
3. Innovation as a ‘co-evolutionary route.’ How do you prepare an organization for such a route? How can organizations build relevant competencies?
4. Sustainable and closed-loop supply chain management.
5. Design for the Environment (eco-design) and Cradle-to-Cradle (C2C) efforts.
6. Ecological modernization at the social and organizational level; the role of innovation in response to regulatory policy.
7. Training and integration of engineers and staff on sustainability topics.
8. Integrating life-cycle analysis into organizational projects.
9. Management of corporate social responsibility (CSR) systems (e.g. environmental, safety, health and management systems such as ISO 14000 and ISO 26000) and their dovetailing relationship to sustainability.

We invite high-quality modeling and empirical study approaches for advancing sustainability research in these and other IEEE-TEM topics. Analytical, Economic, Quantitative tools and methodological developments are all welcome. We will also invite conceptual review papers that provide a broader understanding and contribution to theory and practice. We also welcome Focus on Practice articles intended to directly impact practice in the area of sustainability. Thus, normative, descriptive, and empirical approaches are all welcome for submission to this special issue. Accepted papers are expected to be within the scope of the IEEE TEM. Authors are referred to the home page <http://www.umsl.edu/~ieeee-tem/> All manuscripts will be double-blind reviewed by at least two reviewers. Papers will be evaluated based on scientific quality, considering rigor, scientific novelty and scientific contribution.

Potential contributors with questions can contact any of the editors to this special issue. The deadline for submissions of the completed manuscripts is **July 15, 2011**. The complete anticipated schedule for the special issue is:

July 15, 2011: Deadline for submission of complete manuscript
October 15, 2011: Anticipated date for providing First-round Decision to Authors
January 15, 2012: Deadline for submission of First Revision
February 28, 2012: Completion of Final Decisions
Mid-2012: Publication of Special Issue

Papers may be submitted electronically through the journal's manuscript central site at:

<http://mc.manuscriptcentral.com/tem-ieee>.

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