



# 10th Global Conference on Sustainable Manufacturing

## Towards Implementing Sustainable Manufacturing



MIDDLE EAST  
TECHNICAL  
UNIVERSITY

October 31st – November 2nd, 2012  
Istanbul, Turkey

### Honorary Chairmen:

#### Prof. Dr. Ahmet Acar

Rector of Middle East Technical University,  
Ankara, Turkey

#### Prof. Dr.-Ing. Jörg Steinbach

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Berlin, Germany

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Department, Atilim University, Ankara,  
Turkey

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Department of Machine Tools and Factory  
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Germany

### Co-Chairman:

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Department of Mechanical Engineering,  
Middle East Technical University,  
Ankara, Turkey

### General Coordinator:

#### Prof. Dr.-Ing. Izzet Furgac

Department of Machine Tools and Factory  
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### Deadlines:

#### April 23<sup>rd</sup>, 2012

Abstract submission

#### May 7<sup>th</sup>, 2012

Notification of abstract acceptance

#### July 9<sup>th</sup>, 2012

Full paper submission

#### September 3<sup>rd</sup>, 2012

Notification of paper acceptance

#### September 24<sup>th</sup>, 2012

Deadline for the final manuscript submission

### Hotel Accommodation:

Official PCO – BAKHUS INC. features  
Conference Hotel with special prices for  
participants.

Hotel information is published on the 10th  
GCSM website.



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### Objective

Sustainable manufacturing has emerged as the leading paradigm to address the dilemma of maintaining a progressive economic growth based on production of goods and services without continuing to damage our environment. While manufacturing is a major driver of civilized development which provides high quality living standards, it can be harmful to natural environment. If not managed and minimized, this impact may include damage such as depletion of natural resources, global warming and toxic wastes which can significantly harm natural habitat and human health.

Turkey has started to adopt sustainable development policies due to the pressure created by rapid population growth and industrialization on natural resources and energy supplies. Turkey's national vision within the scope of global warming is to become a country which has integrated its climate change policies into the sustainable development policies. This vision will let the energy efficiency become widespread and increase the use of clean and renewable energy resources. Becoming signatory to the Kyoto Protocol encouraged Turkey to track its greenhouse gasses and adopt sustainable manufacturing. Recent legislative arrangements in Turkey play an important role especially for controlling greenhouse gas emissions and the efficient use of energy. As announced by the Ministry of Energy and Natural Resources of Turkey, Turkey will come up with policies supported by external sources of finance, which aim at helping to implement the clean development targets by the end of 2012. Being the cultural, financial and economic center of Turkey and cradle of civilizations, Istanbul welcomes international participants to build relationships and expand horizons at the crossroads of Europe and Asia.

The 10<sup>th</sup> Global Conference on Sustainable Manufacturing (10<sup>th</sup> GCSM) is expected to attract representatives from science and industry from all over the world to Istanbul. The conference serves as a forum for international research institutes and industrial companies related to the area of sustainable manufacturing. The conference offers keynote speeches, panel discussions, parallel sessions and a poster forum.

This 10<sup>th</sup> GCSM supported by the International Academy for Production Engineering (CIRP) shall be a follow-up to previous conferences held at University of Economics and Finance, St. Petersburg, Russia in September 2011, at Masdar Institute of Science and Technology, Abu Dhabi University, UAE in November 2010, at the Indian Institute of Technology Madras, India in December 2009, Pusan National University, Korea in October 2008, at Rochester Institute of Technology in Rochester, NY, USA in September 2007, at University of Sao Paulo, Brazil in October 2006, at Jiao Tong University, Shanghai, China in October 2005, at Technical University, Berlin, Germany in September 2004, as well as the Environmentally Benign Manufacturing workshop held in Birmingham, Alabama, USA, in January 2003.

## International Scientific Committee

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**Erkut Tanrıseven** Bakhus Tourism Industry and Trading Inc., Ankara

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**Otto Bauer** Regional Manager, Festo, Istanbul  
**Ali Kantur** Managing Director, Kantur and Aktaş Construction Co. Inc., Ankara  
**Orhan Aydın** Director of OSTIM Industrial Zone, Ankara

## Topics

- Value creation by sustainable manufacturing
- Product design for resource efficiency and effectiveness
- Manufacturing process and equipment
- Life Cycle Engineering and assessment
- Maintenance, repair, and overhaul
- Remanufacturing, reuse and recycling
- Green supply chain and transportation
- Information and communication technologies for sustainability
- Sustainability assessment and optimization
- Innovative energy conversion
- Qualification for sustainability engineering
- Adequate environments for entrepreneurial initiative
- Sustainability as a service
- Renewable energy initiatives in Turkey
- Water resource management for sustainability
- Awareness for sustainability in public, government and economics
- Case studies in implementing various aspects of sustainable manufacturing

## Submission Information

Interested authors should submit full papers (maximum 6 pages) in English, as a PDF or MS Word file. Guidelines to prepare the full papers is available in MS Word format in the conference website. These papers should be uploaded into the website for review and comments by the international and local committees. English is the official conference language.

## Peer Evaluation

The submitted papers will be evaluated by scientists of the international and local committees.

## Publication

All accepted papers will be in the conference proceedings CD, which will be available at the conference. At least one author must be registered and pay the registration fee in order for the papers to be published in the conference proceedings. Selected papers in their expanded versions will be fully reviewed and considered for possible publication in the International Journal of Sustainable Manufacturing.

## Conference Venue and Organizers



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