



**INTERNATIONAL CONFERENCE ON  
"DESIGN AND ADVANCES IN MECHANICAL ENGINEERING"**

**16 – 17 December 2011  
Tamilnadu, INDIA**

**ORGANIZER:**

Department of Mechanical Engineering  
S.K.P Engineering College  
Tiruvannamalai, Tamilnadu, India

**ABOUT THE CONFERENCE**

Department of Mechanical Engineering, S.K.P. Engineering College, Tiruvannamalai, India, is organizing an international conference on "Design and Advances in Mechanical Engineering". This conference will provide a platform in expressing application trends, progress and future course of computer aided engineering & simulation in Mechanical Engineering. The Conference will include plenary sessions, keynote lectures and technical sessions.

**AIM & SCOPE:**

The aim of this conference is to provide an interdisciplinary forum for engineers, researchers and student technocrats to discuss and promote research and technology transfer of design and advances in Mechanical Engineering. This conference is focused on fundamental research and computational tool related to design and advances in Mechanical Engineering and comes at an appropriate time when the whole world is moving towards innovation. The objective of ICDAAME-2011 is to establish an effective channel of communication among those in academia, industry and others concerned with computer aided engineering theories, methods, enabling technologies in mechanical engineering researches. The present conference will bring researchers, educators, professional engineers and technologists into a single forum in order to discuss & debate on the innovative and intelligent design of engineering products, processes, materials, mechanisms and other advanced systems. It is hoped that at the end of the conference there will be possible solutions and conclusions on the challenges emerging out of the theme.

**TOPICS**

The scope of the conference will be fulfilled through discussion of the papers on the following topics:

Product development: Product modeling, visualization techniques/ Concurrent product development/ Collaborative and distributed design/Rapid Prototyping/ Product life-cycle modeling and management/ Reverse engineering/ Sustainable product development

Design theory: Conceptual design/ Computational design synthesis/ Design for X (adaptability, reconfigurability, energy, life cycle, etc.)/ Emerging design theory and methodologies

Virtual design and development: Numerical modeling/ Finite element modeling, simulation and validation/ Computational fluid dynamics/ Rotor dynamics/ Multi-body dynamics/ Failure Prevention/Fatigue and fracture/ Bio-mechanics



*Design optimization: Structural and topology optimization/ Multi-disciplinary optimization/Sensitivity analysis/ Artificial Intelligence/ Reliability, robust design/Simulation based design*

*Machine design: Theoretical and computational kinematics/ Mechanism analysis and synthesis/ Vibration and noise/Dynamics and control/Gearing and transmission system*

*Material and Machining process design: Design and application of biomaterials, ceramics, composites/ Process design and modeling: casting, forming, joining, conventional and unconventional machining/ Machine tools and cutting tools*

*Manufacturing system design: Modeling, simulation and optimization of manufacturing processes/ Lean, agile, reconfigurable manufacturing system/ Assembly line design/ Metrology and inspection/ Tolerance Analysis*

*Design of advanced system: Nano and micro system/ equipments/Robotics, mechatronic systems/ Material handling systems/ Vehicle design*

*Thermal and fluid system design: Thermal system/equipment design/Advanced IC engine/ propulsion/ Combustion modeling/ pressure vessels/ Micro-fluid systems/ Energy and energy conversion system*

**IMPORTANT DATES:**

|                                 |                      |
|---------------------------------|----------------------|
| Acceptance of full paper        | October 15, 2011     |
| Registration (without late fee) | October 31, 2011     |
| Conference dates                | December 16-17, 2011 |

**CONTACT:**

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