



# 17<sup>th</sup> Annual (International) Conference on Mechanical Engineering (ISME2009)

**CHAIRMAN:**

**Professor Vahid Esfahanian**

**Tuesday–Thursday**

**19–21 May 2009**

**Faculty of Mechanical Engineering**

**College of Engineering**

**University of Tehran**

**Tehran, Iran**

**Further information:**

[www.isme.ir/isme2009](http://www.isme.ir/isme2009)

On the 75th anniversary of the College of Engineering, University of Tehran, the 17th Annual (international) Conference on Mechanical Engineering (ISME2009) has been organized by the Faculty of Mechanical Engineering.

The conference is concerned with the latest theoretical, mathematical and scientific developments in mechanical engineering as well as applications of established techniques to new domains. It will provide an international technical forum for experts and researchers from both the academia and industry to meet and exchange new ideas and present their findings in various mechanical engineering disciplines.

## Conference Scopes and Themes

### Fluids Mechanics

Compressible and Incompressible Flows, Turbulent Flows, Computational Fluid Dynamics, Combustion, Multi-Phase Flows, Non-Newtonian Fluids, Hydraulic, Turbomachinery, and Flow in Porous media

### Solid Mechanics

Plates and Shells, Pressure Vessels, Fracture Mechanics, Impact, Elasticity, Plasticity, Visco Elasticity, Computational and Experimental Methods of Stress Analysis, Fatigue and Creep, Machine Design, Composites and Novel and Intelligent Materials, Metal Welding and Non Destructive Tests

### Dynamic Systems, Control, and Vibration

Automatic Control, Automobile Dynamics, Process Control, Robotics and Mechatronics

### Thermodynamics and Heat Transfer

Thermal System Design, Heat Transfer (Conduction, Convection, Radiation), Inverse Heat Transfer, Condensation, Vaporization, Solidification and Cooling and Heating Facilities

### Energy and Environment

Thermal Power Plants, Gas Turbines, Internal Combustion Engines, Fuel Cell, Renewable Energies, Combustion and Air Pollution and Energy Usage Optimization in Industry and Building

### Computational Mechanics

Spectral Methods, Computational Algorithms, Finite Difference, Finite Element, Finite Volume, Boundary Element, Simulation and Optimization

### Micro and Nano Mechanics

Heat Transfer and Fluid Mechanics in Micro and Nano Scale, Nano Materials, MEMS and NEMS

### Mechanical Engineering Development Needs

Customer Rights, Competitive Private Division, Knowledge Development and Transfer of New Technologies, Essential Legal Structure, Government and its Function in New Strategies and Engineering Moral Values

### Interdisciplinary Concepts and IT Related to Mechanical Engineering

