



# HCMUTE

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Faculty of Mechanical Engineering, Ho Chi Minh City, University of Technology and Education, Vietnam

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## THE 1<sup>ST</sup> SYMPOSIUM ON MECHANICAL ENGINEERING (SME 2016)

NOVEMBER 26, 2016

### CALL FOR PAPERS

**The 1<sup>th</sup> Symposium on Mechanical Engineering, SME 2016** will be held in the Faculty of Mechanical Engineering, Ho Chi Minh City University of Technology and Education, Vietnam during November 26, 2016. The conference is organised by the FME.

It focuses on both theory and applications mainly covering the topics of mechanical engineering.

The topics of interest include, but are not limited to:

**A. Automation, Mechatronics and Robotics**

1. Linear and Nonlinear Control Systems
2. Process Control, Optimal Control, Adaptive Control, Robust Control, Predictive Control
3. Chaotic Systems, Intelligent Systems
4. Advanced Motion Control
5. Systems Identification, Signal Processing, Fuzzy Logic Systems, Neural Networks
6. Artificial Intelligence and Intelligent Control
7. Guidance and Navigation, Network Traffic Control
8. Micro/Nano Mechatronics
9. Fault detection and Diagnosis
10. Mechatronics applications (Medical, Bioengineering, Aeronautics,...)

**B. Dynamics and Vibration**

11. Acoustics
12. Noise Control
13. Multi body Dynamics
14. Nonlinear Dynamics
15. Structural Dynamics
16. Conventional energies
17. renewable energies
18. Energy management

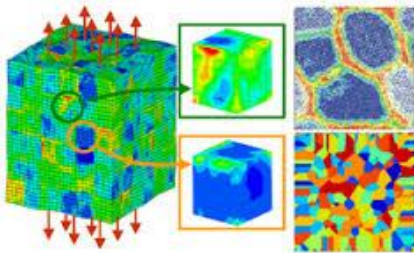
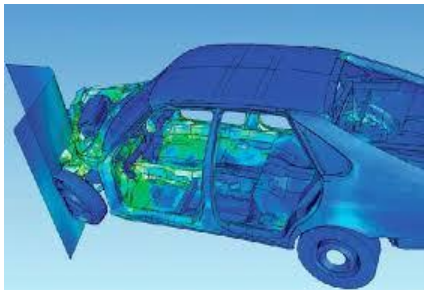
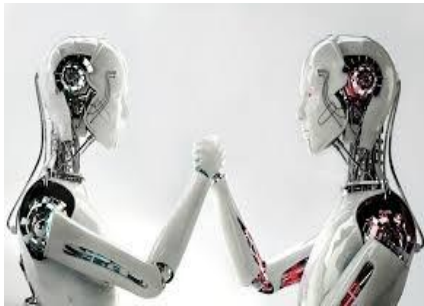
**C. Energy Engineering**

19. Conventional energies
20. renewable energies
21. Energy management

**D. Damage, fracture and failure**

22. Fracture and failure of materials and structures
23. Damage mechanics
24. Dynamic failure and fracture
25. Plasticity

**E. Flow problems**



26. Fluid mechanics
27. Fluid dynamics
28. Multi-phase flows
29. Inviscid and viscous flows
30. Unsteady flow computation
31. Heat transfer
32. Compressible flows

#### **F. Manufacturing and Maintenance**

33. Structural Monitoring
34. Production Processes
35. Construction Management

#### **G. Materials**

36. Materials science
37. Polymers and polymer composites
38. Steel-Concrete Composite
39. Mechanical response of composites
40. Smart structures and materials
41. Functionally graded materials
42. Glass, Ceramics and Refractories
43. Piezoelectric Materials
44. Sensor Materials
45. Actuator Materials
46. Shape Memory Alloys

#### **H. Numerical simulation methods**

47. Adaptive modeling and simulation
48. Atomistics simulations
49. Extended discretization methods
50. High order nonlinear numerical methods
51. Meshless and wavelet methods
52. Numerical algorithms for particle methods (lattice - Boltzmann, direct simulation Monte Carlo)
53. Particle-based methods

#### **I. Optimization, inverse problems and control**

54. Computational inverse problems and optimization
55. Evolutionary and deterministic methods for design, optimization and control

#### **J. Biological systems**

56. Biomechanics
57. Bio-fluid dynamics

#### **K. Special Technological Sessions**

### **Important Dates:**

**Deadline for Invited Session Proposal Submission**

**November 20, 2016**

**Extended Deadline for Full Paper Submission**

**November 23, 2016**

**Notification of Acceptance**

**November 25, 2016**