

## Preface

# Engineering Ethics and Visualization



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Engineering ethics is the standards for engineers' obligations to the public. Ethical approaches by discipline and jurisdiction are influenced by whether engineers are independently providing professional services to the public. In spite of existence of the pure ethics, many incidents to betray engineering ethics, such as mislabeling, food contamination, concealment of structural defect, intentionally-fabricated data, have happened over the world, which cause disturbances to the public. One of the typical cheatings to betray the engineering ethics is defective building because of insufficient reinforcing bars to save the cost. Currently, we have heard that a nondestructive visualization technique to check the reinforcing bars number in the concrete beams has large demands in the world ironically. It means defect buildings supervised by unethical engineers are rampantly grown in the world. Surely this kind of technology would not be necessary if every engineer had strong mind to oblige to the public. Our feeling is complicated about infestation of the cheating and necessity of the nondestructive techniques. Essential education system to teach engineering ethics should be provided in the world to avoid the unethical behavior.

In this issue Volume 11 Number 2, Journal of Visualization carries seven articles on the latest advanced visualization topics. The first five papers represent fundamental and academically interesting research on flow visualization including Junction Flows by Altering the Section Shapes of the Cylinders, Vortex Structure in a Pulsed Rectangular Jet, Detached Shock Waves around Flying Cylinders, Local Structure of Two-phase Flows in Horizontal Ducts, and Near-field Acoustic Characteristics of Screech Jet. The remaining two papers are visualization techniques, focusing on Anisotropic Flakes and Liquid Crystal Thermometry. Several high quality articles are published in this current issue from the 9<sup>th</sup> International Symposium Fluid Control, Measurement and Visualization (FLUCOME 9) held in Tallahassee, Florida USA from September 16 to 19<sup>th</sup> 2007. The rest of the papers submitted to Journal of Visualization from FLUCOME are published in the next issue. We would like to appreciate all authors for their contributions.

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