

Human resource development and visualization



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We are pleased to present the *Journal of Visualization* Volume 12, Number 1, to readers around the world. One of the current key words we hear often in academic environment is human resource development. An unique program to enlighten young and senior people to empower their abilities are established due to financial support by a government. In order to strengthen the human resource development, the academic society should take an initiative to establish a collaborative relationship among industry, government and academia. We believe that the visualization academic society is not exception because the human resource development for training visualization technology leads to the potential to become a new core industry. The visualization academic society must have responsibility for cultivating many intellectuals with sophisticated theoretical knowledge and excellent practical skills. With a broad overview of the future, they will be playing active roles in their own fields to serve the general public. As you may know, the word of visualization becomes a big word covering mechanical engineering, electrical engineering, computer science, sociology and science and so on. It means the stage for their appeals are extremely wide and blight.

This issue of JOV includes one short paper and 9 regular papers. The several papers are submission from Asian Visualization Symposium held from June 4 to 8, 2007 in Hong Kong and the Ninth International Symposium on Fluid Control, Measurement and Visualization held from September 17 to 19 2007 in Florida USA. The papers introduce fundamental flow measurement and visualization research in such areas as piezoelectric synthetic jet flow, dimple arrays and pressure distribution. Moreover, this issue has unique interests of heat transfer and flame visualization in such areas as pool boiling of nano-fluids, flame behavior in a flickering methane/air diffusion flame, and temperature measurement of dilute hydrogen flame. Of course, computer science fields such as CFD and neural net modeling are published at the end. Finally, the 2nd International Symposium on Recent Advances in Experimental Fluid Mechanics held in Vijayawada India during March 3 – 6, 2008 is reported. We hope that all our readers will enjoy these full-color articles.

Managing Editors

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Cover Photo

Laboratory-scale blast wave phenomena - optical diagnostics and applications

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Adapted from: Shock Waves, 14- 5/6 (2005) 343-357.

This figure shows simultaneous visualization of color schlieren method and double exposure infinite fringe holographic interferometry of spherical shock wave generated by exploding a 10 mg silver azide pellet with pulse laser beam irradiation on it. The color tune represents density gradient and the fringe pattern represents density distribution. A pronounced jet of combustion products is generated in the direction of laser irradiation.