

Revitalize the Visualization



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In Japan, visualization information studies started to be organized at the flow visualization symposium that was pre-predecessor of the Visualization Society of Japan, and has its origin in October 1972. Reflecting back on my involvement in flow visualization study, it was in 1969 at a research workshop of Japanese Society of Mechanical Engineers on unsteady flow measurement that I was first involved with visualization, and my first work was to marshal unsteady flow measurement using the flow visualization technology. Then, in 1980th, encountered significant progress of computer, I launched the study to combine visualization and computer. In 1984, I created the Computer Aided Flow Visualization study group that is the first research group of the Flow Visualization Society. The pillar of study at this group was to quantify the flow information obtained through the combination of physical flow visualization technologies and computer, as well as to visualize information including the results of computer simulation. The former has led to the creation of new fields in flow measurement, Particle Imaging Velocimetry and Particle Tracking Velocimetry, and the latter has become an engine for the development of computational science through the representation of huge information born from computer simulation on fluid phenomena including turbulent flow calculation such as Large Eddy Simulation. The visualization has great importance in my life as a researcher.

It has been only 20 to 30 years since I was involved in visualization study, and ten years since the Visualization Society of Japan brought out its English journal, while times have changed significantly. In Japan, the word "visualization" is now used in discussion at general conferences, and also widely accepted in the fields of science and technology. There is on one hand the visualization of immense space such as birth of the universe, and ultramicroscopic visualization of molecule or atomic scale is talked about on the other hand. There is the visualization of the inner structure of metallic part by strong X-ray pictures. Visualization of mind by utilizing electroencephalogram signal is also discussed. That is, the visualization is the common method of information representation or indication in all the fields of science, whether or not using the word visualization. The "visualization" as universal technology is of growing importance. To put it the other way around, conventional visualization related studies are losing impact. In the days when we had to explain the meaning of word at the beginning, the visualization itself could be a topic. There was avidity and centripetal force until the visualization tool was launched.

Now in 10th year of our English journal, the journal seems to need a new feature.

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