Applications of Computer Vision in 3D Perception

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

As robots and autonomous systems deviate from laboratory setups towards complex real-world scenarios, both the 3D perception capabilities of these systems and their abilities to acquire and model 3D semantic information must become more powerful. This Special Issue focuses on a broad variety of topics in the area of computer vision in 3D perception, from novel 3D imaging methods, optical sensors, signal processing, geometric modeling, representation, and transmission to visualization, analysis, interaction, and a variety of applications.

ACQUISITION: Geometry; Calibration; Physics-based vision and shape from X; Structure from motion and SLAM; Dense reconstruction and stereo; Structured light and TOF sensors

MODELLING: Shape representation and features; Geometry processing; Appearance modeling; Registration; Generative and morphable models; 3D motion modeling; High-level representation of 3D data

ANALYSIS: Shape recognition and analysis; Segmentation; Motion and tracking; Body, face, and gesture; Dataset and benchmarking

APPLICATIONS: Robotics; Industrial; Space; Medical; Entertainment; Sports; Biology

Dr. Yang Li
Guest Editor

Special Issue

Editor-in-Chief

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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