**Special Session 8: 3D visual data acquisition and processing from 2D images**

Research to acquire and utilize 3D visual data from 2D images is one of the emerging research topics in the image and video processing community. In general, the information in the real world that a person perceives is 3D data (i.e., with depth information). On the other hand, because 2D visual data are very easily obtainable, visual data exist mostly in the form of 2D data for a long time since the invention of camera, and image processing technology based on 2D data has been continuously developed. Naturally, 2D data acquired without equipment for 3D information (such as depth cameras and multiple cameras), is inferior in the performance of applications toward recognition and the realism of the displayed information. Therefore, in order to utilize data from humans' cognitive viewpoint, many researchers have recently begun paying attention for obtaining information that is the basis of 3D data from 2D data. For this purpose, landmark, point cloud, and voxel information acquisition technology, which is the basis of 3D data information based on most image processing technologies, is developing. As a result, the accuracy of many applications, such as face recognition and scene creation, has increased significantly without the need for special depth acquisition equipment.

Organizers:

Sanghoon Lee
Yonsei University, Korea
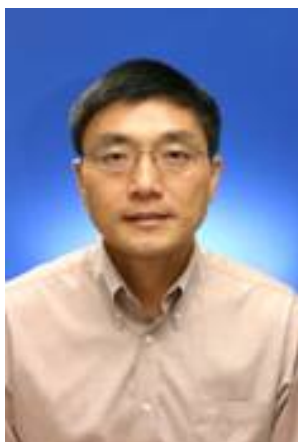
Weisi Lin
Nanyang Technological University, Singapore

Jiwen Lu
Tsinghua University, China