Title: 3D Visual Media for Mixed and Augmented Reality

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Recent progress of computer vision technology makes innovative progress in 3D visual media industry. One typical influential research project was Virtualized Reality in CMU, in which we capture whole 3D structure of objective events with 50 cameras for synthesizing and displaying the events in various viewpoints freely based on the state-of art computer vision technology. In my talk, I will talk about such multiple view analysis for synthesizing 3D visualization and its application to sports events. Then, I would like to show that such 3D visual media can also be displayed for virtual/augmented reality applications. For such augmented reality, the important technology is real-time camera motion tracking. I will also talk about our recently developed camera motion tracking method and its application to printed map augmentation.