## <u>Session 1E. Robotics, Automation, and Control 3</u> Moderator: Kevin Han (NC State University)

13:00 #146. Enhancing Visual SLAM with Occupancy Grid Mapping for Real-Time Locating Applications in Indoor GPS-Denied Environments

Lichao Xu, Chen Feng, Vineet Kamat and Carol Menassa

- 13:15 #310. Industrialized Construction: Emerging Methods and Technologies

  Mohamad Ahmadzade Razkenari, Qi Bing, Andriel Evandro Fenner, Hamed Hakim, Aaron Costin

  and Charles Kibert
- 13:30 #371. Automating the Digital Fabrication of Concrete Formwork in Building Projects: Workflow and Case Example
  Mohammad Sadra Fardhosseini, Hamid Abdirad, Carrie Dossick, Hyun Woo Lee, Renzo DiFuria and Joshua Lohr
- 13:45 #301. State-of-the-Art Review on the Applicability of Al Methods to Automated Construction Manufacturing

Mohsen Hatami, Ian Flood, Bryan Franz and Xun Zhang

14:00 #64. Game Simulation to Support Construction Automation in Modular Construction Using BIM and Robotics Technology – Stage I

Oscar Wong Chong and Jiansong Zhang

- 14:15 #234. UAV-UGV Cooperative 3D Environmental Mapping Pileun Kim, Leon Price and Yong Cho
- 14:30 #416. Vision-based Obstacle Removal System for Autonomous Ground Robots Using Robotic Arm

Khashayar Asadi, Rahul Jain, Ziqian Qin, Mingda Sun, Mojtaba Noghabaei, Kevin Han, Jeremy Cole and Edgar Lobaton

14:45 #404. Factors Influencing Measurement Accuracy of Unmanned Aerial Systems (UAS) and Photogrammetry in Construction Earthwork

Xi Wang, Julia Chen and Gabriel Dadi