

Title: Point Cloud Processing and Applications

Abstract: In this talk, I will share the recent research and development in Nanyang Technological University on point cloud processing from multi-modal imaging. Applications in construction, particularly Building Information Modeling will be discussed.

Bio: Professor Yiyu Cai is a tenured faculty with Nanyang Technological University (NTU), Singapore. In NTU, he heads the Computer-aided Engineering Labs, and directs the Strategic Research Program of VR & Soft Computing. He is also deputy director of NTU's Center of Augmented & Virtual Reality. Currently, he is leading a team in NTU developing Virtual & Augmented Reality Technology to enhance learning.

He has over 20 years' experience doing R&D in Virtual & Augmented Reality, Simulation & Serious Games, Artificial Intelligence, and their applications in medicine, engineering and education. His research has been supported by Singapore's National Research Foundation, Temasek Trust Funded Singapore Millennium Foundation, Ministry of Education, and many other public and private sectors. He has co-invented 6 international patents, and published 5 books (Springer) and over 100 technical articles in SCI/SSCI journals and leading international conferences. He has organised more than 20 international conferences and will organise the prestigious AI medical conference MICCAI2022 in Singapore. He has given near 60 keynote or invited speeches in 20+ countries including France, Hollands, and Japan. He was former president of International Simulation and Gaming Association which was founded in Europe 50 years ago. Over the years, he has been working closely with world class scientists and educators from Johns Hopkins Medical School (USA), University of Toronto (Canada), University College London (UK) and Utrecht University (The Netherlands).