專題演講

Speaker: Prof. Sanghoon Lee, Yonsei University, Korea
Lecture style: In person
Location: Conference Room (95213), Chimei Building 2nd Floor of National Cheng-Kung University
The date and time: 2024/1/30 [11:00 – 12:00 (Taipei Time)]
Title: Music-conditioned pluralistic dancing and a multi-camera system

Abstract

In this talk, I would like to present "music-conditioned pluralistic dancing" and what we have done in our lab. toward building a multi-camera system for future research. When coming up with phrases of movement, choreographers all have their habits as they are used to their skilled dance genres. Therefore, they tend to return certain patterns of the dance genres that they are familiar with. What if artificial intelligence could be used to help choreographers blend dance genres by suggesting various dances, and one that matches their choreographic style? Numerous task-specific variants of autoregressive networks have been developed for dance generation. Yet, a serious limitation remains that all existing algorithms can return repeated patterns for a given initial pose sequence, which may be inferior. To mitigate this issue, we proposed MNET, a novel and scalable approach that can perform music-conditioned pluralistic dance generation synthesized by multiple dance genres using only a single model. Here, we learned a dance genre aware latent representation by training a conditional generative adversarial network leveraging Transformer architecture. After demonstration of the dancing, I would like to introduce the effort of our labs. for implementation of our multi-camera system. From the camera-system, we can expect numerous possibilities of developing core technologies in the fusion research areas of combining computer vision and computer graphics.

Biography

Sanghoon Lee is a Professor at the EE Department, Yonsei University, Korea. His current research interests include image processing, computer vision, and graphics. He was an Associate Editor of the IEEE Trans. on Image Processing from 2010 to 2014. He served as a Guest Editor for the IEEE Trans. on Image Processing in 2013. He was the General Chair of the 2013 IEEE IVMSP Workshop. He has been serving as the Chair of the IEEE P3333.1 Working Group since 2011. He served as an Associate Editor for the IEEE SPL from 2014 to 2018, and a Senior Area Editor of the IEEE SPL from 2018 to 2022. He was the IEEE IVMSP/MMSP TC (2014–2019)/(2016–2021) and the IVM TC Chair of APSIPA from 2018 to 2019. He has been serving as an Associate Editor of IEEE Trans. on Multimedia and a member of the Senior Editorial Board of the IEEE Signal Processing Magazine from 2022. He is a Board of Governors member of APSIPA, and also an Editor in Chief of APSIPA News Letters.

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