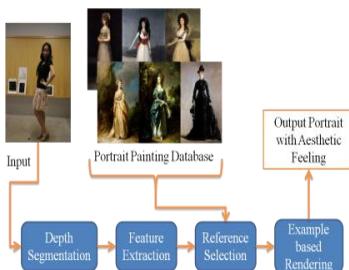


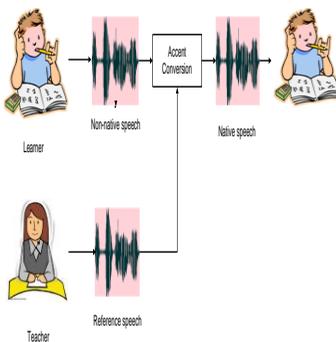


The IMI-PhD Seminar Series is a platform for knowledge dissemination and information sharing on research-in-progress of IMI doctoral candidates. These seminars aim to increase interactions amongst IMI doctoral candidates, the expert faculty members and the business community in order to generate the interdisciplinary research collaborations in New Media and Innovation.



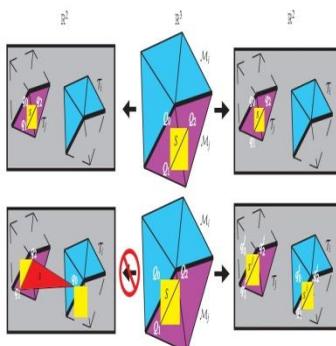
Example-based Portrait Photograph Rendering Zhang Xiaoyan, PHD Student, IMI, EEE & ADM

The research proposed to develop algorithms for example-based portrait rendering based on depth. The reference portrait paintings are selected based on contrast across depth layers for example based photograph rendering to improve its aesthetic appeal. Then the portrait photograph is rendered referring to one of the selected references by contrast mapping.



Accent Reduction for Computer-Aided Language Learning Zhao Sixuan, PhD Student, IMI & EEE

With the advent of advanced speech & language processing technologies, computer-aided language learning (CALL) is playing an increasingly important role in language learning. The conventional approach for speaking skills training requires the learner to repeat a sentence after the sentence uttered by a native speaker is played back to him. However, the dissimilarity between the voice features of the teacher and the learner can distract the latter from his pronunciation or prosody deficiency, thus reducing the learning efficiency. In our study, speech synthesis & conversion techniques are used to improve the prosody and pronunciation of the learner's utterances, while maintaining the original learner's identity. The modified utterances are then used as reference utterances for speaking skills training. Experiments have shown an improvement in the "nativeness" of the modified utterances with limited distortions.



Hardware Accelerated Chinese Ink Mesh Painting Cheng Peng, PhD Student, IMI & SCE

Mesh painting is a well accepted and intuitive metaphor for adding high-resolution detail to given 3D polygon model. The designer simply color the elements as texture or geometry information onto the mesh with a brush interface. We propose a fully GPU-accelerated Chinese ink mesh painting technique providing real-time feedback. As the user moves a brush over the 3D mesh, its paint pattern is projected onto the 3D geometry at the current viewing angle and copied to the corresponding region in the object's texture atlas. The painting metaphor will supports real-time texturing, sculpting, smoothing and multi resolution surface deformation.

DATE : 06 March 2012
TIME : 11:00 am – 12:30 pm
VENUE : IMI Seminar Room
Research Techno Plaza
X Frontiers Block, Level 03-01