

Digital Archiving Technology Group

Project Leader

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Digital Archiving of Intangible Cultural Properties



Aim of the Project

- Archiving body motion data of intangible cultural properties
- Analyzing dance body motion data
 - Similarity based data retrieval
 - Motion segmentation/recognition
 - Extracting *Kansei* information
- Use of archived motion data
 - CG animation
 - Virtual Reality application
 - Immersive display
 - Dance collaboration



Digital Archive of Dance Motion with Motion Capture

- Motion capture system
 - Installed in 2000
 - MAC Eva/RT System with 16 Eagle and Hawk cameras



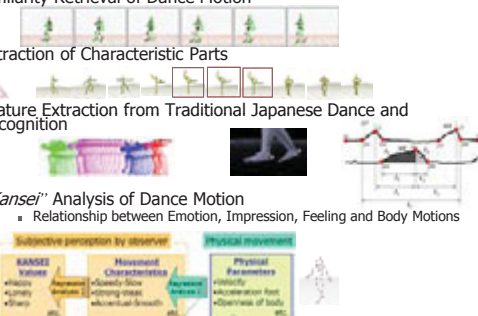
Optical Motion Capture




Noh Nihon-buyo Kabuki Awa-odori

Analysis of Dance Body Motion


- Segmentation of Dance Motion
- Similarity Retrieval of Dance Motion
- Extraction of Characteristic Parts
- Feature Extraction from Traditional Japanese Dance and Recognition
- “*Kansei*” Analysis of Dance Motion
 - Relationship between Emotion, Impression, Feeling and Body Motions



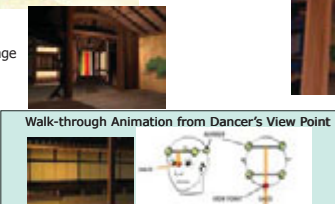
Restoration of *Noh* Stage and CG Animation of *Noh*



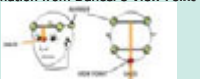
CG restoration of Historical Noh Stage



CG Animation of Noh Play



Walk-through Animation from Dancer's View Point



Estimation of gaze direction

Digital Archives and Virtual Reality

- Immersive VR Environment with cylindrical screen
- Reproduction of archived performances
- Dance collaboration in VR and networked environment



Animation of Noh-play on IVE



Virtual Dance Collaboration