



IEEE Computer Society
Pattern Analysis & Machine Intelligence TC

December 7- 8, 2000

Marriott at the Capitol Hotel

Austin, Texas USA

Workshop on
Human Motion

The study of human motion is a fascinating subject in computer vision, given the attendant complexities of both non-rigidity and occlusion. Following in the steps of earlier workshops such as Motion of Non-rigid and Articulated Objects (Austin 1994), Nonrigid and Articulated Motion (Puerto Rico 1997, HuMANs 2000 Workshop (Hilton Head 2000) and the First International Workshop on Articulated Motion and Deformable Objects (Palma de Mallorca, 2000) the IEEE Computer Society Workshop on Human Motion seeks to bring together the most current research on topics in computer vision for human motion.

Workshop Co-Chairmen

J. K. Aggarwal
Alexander Pentland

Program Co-Chairmen

Aaron Bobick
Larry Davis

Program Committee

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Takeo Kanade
Steve Maybank
Dimitris Metaxas
Pietro Perona

Mubarak Shah
Yoshiaki Shirai
Mohan Trivedi
Christopher Wren

Advance Program

Thursday, December 7, 2000

Session 1. 8:30-10:30 am Direction & Tracking I

Invited Paper: Real-time detection and tracking of people. *Larry Davis*

Phase in Model-Free Perception of Gait. *Jeffrey E. Boyd and James J. Little*

A computational model for motion detection and direction discrimination in humans. *Yang Song and Pietro Perona*

Study of joint stability behaviour using high temporal resolution image sequences. *R. Gabriel, J. Abrantes, A. Mourão, A. Mendonça, J. Bulas-Cruz, P. Melo-Pinto*

Session 2. 11:00-Noon Direction & Tracking II

Specialized Mappings and the Estimation of Human Body Pose from a Single Image. *Romer Rosales and Stan Sclaroff*

TALKING HEADS: Introducing the tool of 3D motion fields in the study of action. *Jan Neumann and Yiannis Aloimonos*

Session 3. 1:30-3:00 pm Motion Estimation & Recognition I

Invited Paper: *Author and title to be announced.*

A Framework for Motion Recognition with Applications to American Sign Language and Gait Recognition. *Christian Vogler, Harold Sun and Dimitris Metaxas*

An Incremental Approach Towards Automatic Model Acquisition for Human Gesture Recognition. *Michael Walter, Alexandra Psarrou and Shaogang Gong*

Session 4. 3:30-5:00 pm Motion Estimation & Recognition II

Individual recognition from periodic activity using hidden markov models. *Chris Debrunner*

On the Improvement of Anthropometry and Pose Estimation from a Single Uncalibrated Image. *Carlos Barrón and Ioannis A. Kakadiaris*

Human Activity Detection in MPEG Sequences. *Burak Ozer, Wayne Wolf and Ali N. Akansu*

ELEVIEW An Active Elevator Video Surveillance System. *Hui Shao, Liyuan Li, Ping Xiao and Maylor K. H. Leung*

Robust Head Motion Computation by Taking Advantage of Physical Properties. *Zicheng Liu, Zhengyou Zhang*

Advance Program continued

Friday, December 8, 2000

Session 5. 9:00-10:30 am
Multiple Persons or Multiple Cameras I

Invited Paper: Gait variation and its potential as a visual biometric. *Aaron Bobick*

Ray Carving with Gradients and Motion. *Bradley V. Stuart*

Tracking Multiple Objects in the Presence of Articulated and Occluded Motion. *Shiloh L. Dockstader and A. Murat Tekalp*

Session 6. 11:00-12:30
Multiple Persons or Multiple Cameras II

Human Motion Tracking System Based on Skeleton and Surface Integration Model Using Pressure Sensors Distribution Bed. *Tatsuya Harada, Tomomasa Sato, Taketoshi Mori*

Activity monitoring and summarization for an intelligent meeting room. *Ivana Mikic, Kohsia Huang, Mohan Trivedi*

Camera Handoff Tracking in Multiple Uncalibrated Stationary Cameras. *O. Javed, S. Khan, Z. Rasheed and M. Shah*

Session 7. 1:30-2:30
Modeling/Counting

Modeling the Constraints of Human Hand Motion. *John Lin, Ying Wu, and Thomas S. Huang*

Person Counting Using Stereo. *David Beymer*

Session 8. 3:00-4:30 pm
Interaction and Shape Estimation

Realistic Synthesis of Novel Human Movements from a Database of Motion Capture Examples. *Luis Molina Tanco and Adrian Hilton*

Face Detection and Attentional Frames for Visually Mediated Interaction. *Jonathan Howell and Hilary Buxton*

Real-time Human Motion Analysis and IK-based Human Figure Control. *Satoshi Yonemoto, Daisaku Arita, and Rintaro Taniguchi*

Human Motion from Active Contours. *Jane Wilhelms, Allen Van Gelder, Leon Atkinson-Derman, Luo Hong*

Hand Shape Estimation Using Image Transition Network. *Yasushi Hamada, Nobutaka Shimada and Yoshiaki Shirai*

Workshop Registration

Fees: IEEE Computer Society Members, \$350 Non-members \$425 Students \$120

For advance registration, please obtain a registration form at the HUMO 2000 website, <http://www.ece.utexas.edu/projects/cvrc/humo/>.

Accommodations

The Austin Marriott at the Capitol (<http://www.marriotthotels.com/>) is a AAA Four-Diamond Hotel located in downtown Austin, just minutes from the central business district, State Capitol, University of Texas, and Austin's entertainment districts. A limited number of rooms has been blocked for this workshop at a guaranteed rate of \$130 per night. Hotel reservations may be made on line at <http://www.marriotthotels.com/reservations>. Follow the links to the Austin Marriott at the Capitol and enter the reservation dates. The group code is HUMHUMA. The workshop rate is available December 6 – 8, 2000. Reservations may also be made by telephone by calling 1-800-228-9290 or by fax using the hotel registration form on the HUMO 2000 website to fax number 512-478-3700.

RESERVATIONS MUST BE MADE BY NOVEMBER 16 TO RECEIVE THE GROUP RATE.

For further information, please contact Prof. J. K. Aggarwal or Debi Prather, 512/471-3259, aggarwaljk@mail.utexas.edu or dprather@mail.utexas.edu.

