



ICAT 2008

18th International Conference on Artificial
Reality and Telexistence

December 1-3, 2008
Keio University, Yokohama, Japan

ICAT2008 18th International Conference on Artificial Reality and Telexistence

Dec 1 (Mon)

0930-1030 Invited Talk 1 □ □ □ □ □ Chairs: Hideo Saito

How to Make Augmented Reality User Interfaces Work
Bruce Thomas (University of South Australia)

1050-1230 Oral Session 1 (O1) Display

Chairs: Bruce Thomas

Gaze Tracking for Near to Eye Displays
Timo Pylvänäinen / Toni Järvenpää / Ville Nummela

Correct Occlusion Effect in the Optical See-through Immersive Augmented Reality Display System.
Kaori Murase / Tetsuro Ogi / Kota Saito / Takahide Koyama

Implementation of EOG-based Gaze Estimation in HMD with Head-tracker
Hiromu Miyashita / Masaki Hayashi / Ken-ichi Okada

Closed-Line Based Representation of 3D Shape for Point Cloud for Laser-Plasma Scanning 3D Display
Hiroyo Ishikawa / Hideo Saito

CAGRA: Occlusion-capable Automultiscopic 3D Display with Spherical Coverage
Yusuke Doyama / Tomohiro Taniakawa / Kazuyoshi Tagawa / Koichi Hirota / Michitaka Hirose

1230-1430 Lunch, Poster Session 1 (P1)

(Announce: Tsuyoshi Moriyama)

1430-1610 Oral Session 2 (O2) Haptics Interface

Chairs: Sabine Coquillart

A Comparison of Output Quality among Haptic Media Synchronization Algorithms
Shuchun Sun / Takeshi Fujimoto / Yutaka Ishibashi / Shinji Sugawara

A Texture-Based Haptic Model Design with 3D Brush
Wataru Wakita / Kenji Murakami / Shun Ido

A Proposal of a Clutch Mechanism for 6DOF Haptic Devices
Masaharu Isshiki / Takahiro Sezaki / Katsuhito Akahane / Naoki Hashimoto / Makoto Sato

TeleTA: Teleoperation System with Tactile Feedback aimed at Presentation of the Physical Contact on Entire Robot Arm Surface to the Human Operator
Dzmitry Tsetserukou / Susumu Tachi

1620-1740 Oral Session 3 (O3) Multimodal System

Chairs: Michael Cohen

A Haptic Dial System for Multimodal Prototyping
Laehyun Kim / Manchul Han / Sangkyun Shin / Sehyung Park

Experiment on Teleolfaction Using Odor Sensing System and Olfactory Display Synchronous with Visual Information
Takamichi Nakamoto / Norihiro Cho / Nimsuk Nitikarn / Bartosz Wyszynski / Hiroki Takushima / Masashi Kinoshita

Construction of Dental Simulation System with Mixed Visual, Tactile, and Sound Realities
Hiroshi Noborio / Daisuke Sasaki / Yusuke Kawamoto / Tomoaki Tatsumi / Taiji Sohmura

A Method of Supporting Personal Activities in Virtual Reality Space Utilizing Physiological Data
Masaki Hayashi / Hiromu Miyashita / Ken-ichi Okada

Dec 2 (Tue)

0930-1030 Invited Talk 2

Chairs: Hideo Saito

Natural user interfaces for collaborative environments
Michael Haller (Upper Austria University of Applied Sciences)

1050-1230 Oral Session 4 (O4) Application

Chairs: Yasushi Ikei

Calculation Model of Jellyfish for Simulating the Propulsive Motion and the Pulsation of the Tentacles
Junsei Hirato / Yoichiro Kawaguchi

An Improved Facial Orthopedic Surgery Planning System with Pre-processing FEM Modeling
Lei Pan / Lixu Gu, Zhennan Yan / Sizhe Lv / Bo Zhu

Simulation of Sutures for Virtual Surgery Applications
Hans-Georg Menz / Kup-Sze Choi

An easy-to-use Framework to integrate Data Processing and Data Fusion in VR Applications
Pierre Boudoin / Samir Otmane / Malik Mallem / Hichem Maaref

Moving Between Contexts - A User Evaluation of a Transitional Interface
Raphael Grasset / Andreas Dünser / Mark Billinghurst

1230-1430 Lunch, Poster Session 2 (P2)

(Announce: Tsuyoshi Moriyama)

1430-1550 Oral Session 5 (O5) Perception



Chairs: Andrei Sherstyuk

Study of stereoscopic shape perception for virtual design
Laure Leroy / Philippe Fuchs / Alexis Paljic / Guillaume Moreau

1:1 Scale Perception in Virtual and Augmented Reality
Emmanuelle Combe / Javier Posselt / Andras Kemeny

Adaptive Body use of multipede driven by coupled neural oscillators
Shogo Yonekura / Shinichiro Yagi / Yoichiro Kawaguchi

Pulse Ejection Technique of Scent to Create Dynamic Perspective
Junta Sato / Kaori Ohtsuki / Yuichi Bannai / Ken-ichi Okada

1600-1740 Oral Session 6 (O6) Virtual Environment

Chairs: Guillaume Moreau

Sliding Viewport for Interactive Virtual Environments
Andrei Sherstyuk / Dale Vincent / Caroline Jay

Proxy-based Mechanism in Mobile Distributed Virtual Environment
Lin Xu / Xiaohui Liang / Ke Xie

Virtual Exploring to Jing-Hang Grand Canal
Zhigeng Pan / Shengnan Chen / Liqiang Xu / Huaqing Shen / Gengdai Liu / Kangde Guo / Yibin Ye

Simulator for Regional Anaesthesia in Virtual Environments with Electric Nerve Stimulation
Sebastian Ullrich / Oliver Grottko / Wei Liao / Thomas Deserno / Rolf Rossaint / Torsten Kuhlen

Biometrics Security in a Virtual Environment
Andrea Kanneh / Ziad Sakr

Dec 3 (Wed)

0930-1030 Invited Talk 3

Chairs: Hideo Saito

Haptics of Humans and Robots
Takashi Maeno (Keio University)

1050-1150 Oral Session 7 (O7) Augmented Reality / Mixed Reality

Chairs: Michael Haller

Creating Mixed Reality Manikins for Medical Education
Andrei Sherstyuk / Dale Vincent / Benjamin Berg

AR Representation System for 3D GIS based on Camera Pose Estimation using Distribution of Intersections
Hideaki Uchiyama / Hideo Saito / Vivien Nivresse / Myriam Servières / Guillaume Moreau

A Hierarchical Annotation Database and a Dynamic Priority Control Technique of Annotation Information for a Networked Wearable Augmented Reality System
Daisuke Takada / Takefumi Ogawa / Kiyoshi Kiyokawa / Haruo Takemura

1150-1300 Lunch

1300-1400 Ending Talk

Chairs: Yoshifumi Kitamura

Haptics and Pseudo-Haptics: from Reserach to Industry
Sabine Coquillart (INRIA and LIG)

★ICAT2008 registrants can attend ACE2008 on this day.

1415-1330 ACE Keynote Talk 1

Human-Entrained Embodied Interaction and Communication Technology
Tomio Watanabe (Okayama Prefectural University)

1545-1730 ACE Special Session: Entertainment in Dining

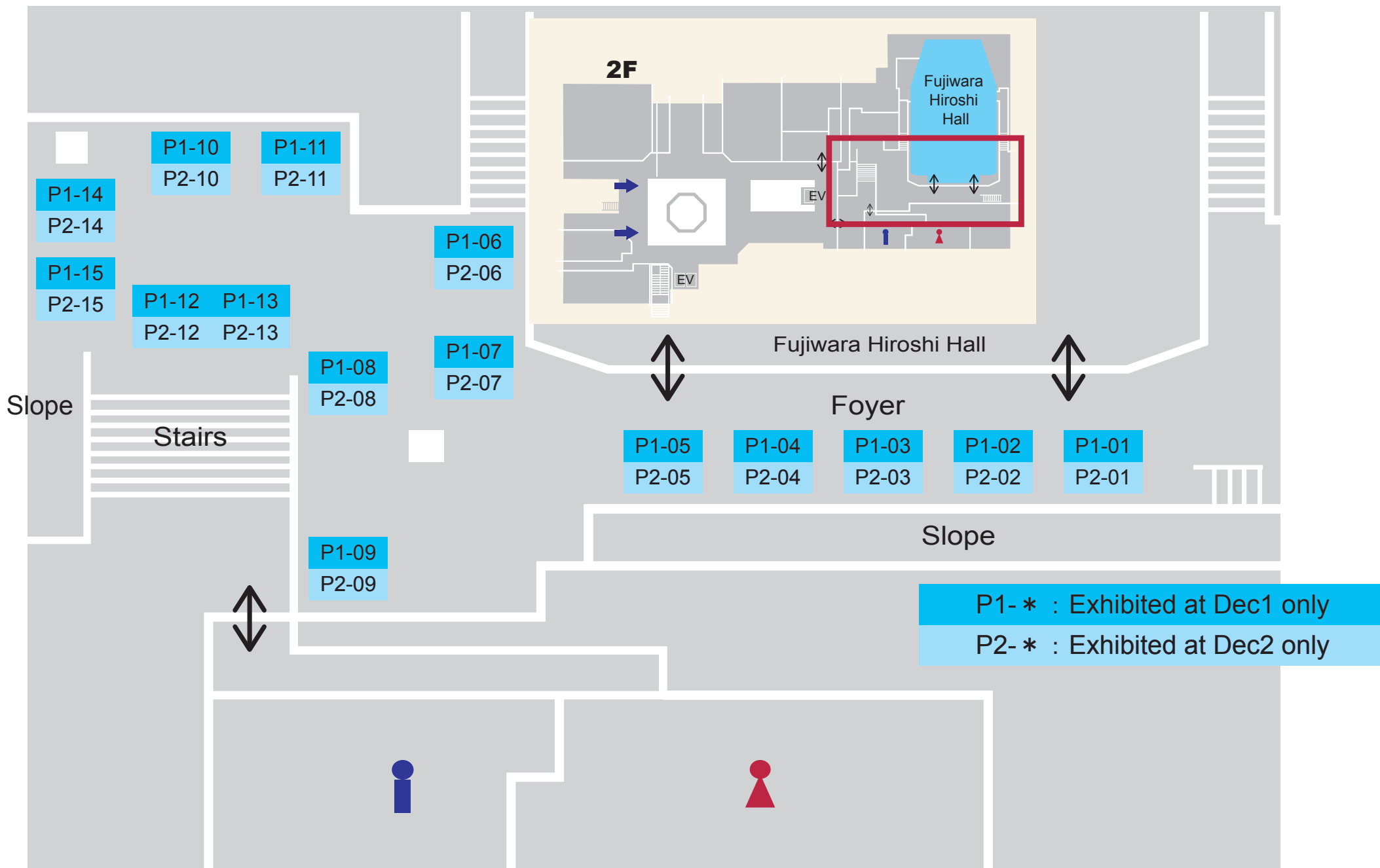
Information and Communication Technologies for Food and Entertainment
Shuntaro Yamazaki (NEC Central Research Laboratory)

Eat with Eyes: Work of Food Sample
Kitayama Kousei (Iwasaki Co., Ltd)

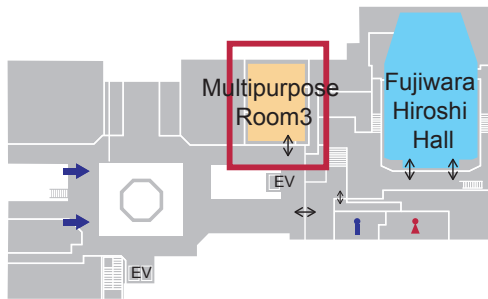
19:00-21:00 ICAT & ACE Banquet



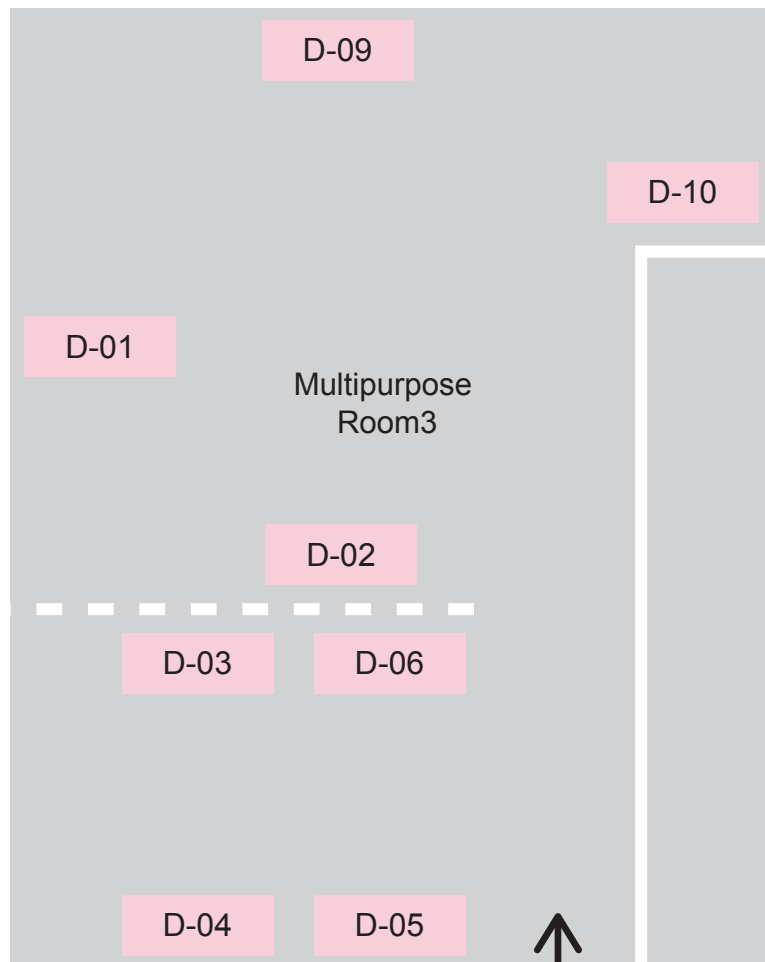
★You cannot miss the boarding time!!



Demo Session 1



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Poster Session Dec 1-2

- P1-01 □ Virtual Roommates in Ambient Telepresence Applications
- P1-02 □ Real-time Upper Body Pose Detection using Stereo Vision ASIC
- P1-03 □ GPU-based photometric reconstruction from screen light
- P1-04 □ Study of Maintaining Concentration by Auditory Brain Computer Interface
- P1-05 □ Pattern-based Gesture Interaction with a Digital Table
- P1-06 □ Study on perceptual properties of images presented by Saccade-based display
 - --- Asynchronous and depth perception
- P1-07 □ Angle-changeable Immersive Projection Display
- P1-08 □ Free versus constrained motion for assessing wind turbines' impacts on landscape in virtual environments
- P1-09 □ A Distributed Software Architecture for Collaborative Teleoperation based on a VR Platform
 - and Web Application Interoperability
- P1-10 □ An invariant-based approach to static Hand-Gesture Recognition
- P1-11 □ Task-Based Second Language Learning VR System
- P1-12 □ EEG-Based Photo Pickup
- P1-13 □ Multiple Conference Support Method Using Variable Speed Playing and Video Image Switching
- P1-14 □ Application of Computational Fluid Dynamics Simulation to Olfactory Display
- P1-15 □ Experimental identification of model parameters in welding simulator and its performance
 - evaluation by veteran welders
- P2-01 □ Collaborative Work between Heterogeneous Haptic Interface Devices: Influence of Network Latency
- P2-02 □ A Study for Touchable Online Shopping System with Haptical Force Feedback
- P2-03 □ Development of Modified Motorcycle Simulator Assessment and Training System for the Spinal Cord Injury Patients
- P2-04 □ AR Mapping of GIS Information by Pattern-based Tracking with Particle Filter
- P2-05 □ A study on user attitude toward the interactive floor
- P2-06 □ A New Concept of Brain-Computer Interface with Environmental Event Sensing
- P2-07 □ Motion Tracking with Velocity Update and Distortion Correction from Planar Laser Scan Data
- P2-08 □ Interconnection between Different Types of Haptic Interface Devices: Absorption of Difference in Workspace Size
- P2-09 □ Vibration Signal Synthesis for Representing Cutaneous Tactile
- P2-10 □ The use of Haptic Guide with 3D Interactions in a Large Scale Virtual Environment
- P2-11 □ The Shadow Dancer: An interactive performance system with a foot interface
- P2-12 □ FloatingPad: A Touchpad Based 3D Input Device
- P2-13 □ Navigation Assistance for Wayfinding in the Virtual Environments: Taxonomy and a Survey
- P2-14 □ Gesture Interpretation for Domestic Appliance Control
- P2-15 □ Effects of video reflection by wearable memory enhancement system

Demo Session Dec 1-2

- D-01 □ 4DCap: Multi-View Dynamic 3D Object Reconstruction System
- D-02 □ Clutching Methods for Haptic Interaction System.
- D-03 □ Graph-Sono 4C Hand Drawing Sound.
- D-04 □ PONYO-PONYO!
- D-05 □ MIMAMORI-Phone.
- D-06 □ Odor Playback Based on Computational Fluid Dynamics Simulation.
- D-07 □ K-Cave demonstration: Seismic information visualization system using the OpenCABIN library.
- D-08 □ Super High Definition Stereo Image using 4K Projection System.
- D-09 □ Ryugo Kijima Demo Proposal: Screen-less Head Mounted Projector with Retrotransmissive Optics.
- D-10 □

