

laboratory

Sight

Hearing

## Proceedings

Smell

Taste

International Symposium:  
Toward a Development of *KANSEI* Technology

Touch

*KANSEI* 2001

Satellite Venture Business Laboratory

Satellite Venture Business Laboratory (SVBL),  
Muroran Institute of Technology,  
Muroran, Hokkaido, Japan.

October 5 - 6, 2001

**Organizer:**

SVBL, Muroran Institute of Technology, Japan

**In cooperation with:**

Japan Society of *KANSEI* Engineering (JSKE)

Society of Instrument and Control Engineers (SICE)

Research Society of Nonlinear Theory and its Applications, IEICE (NOLTA)

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## 国際シンポジウム ( KANSEI 2001 ) プログラム

### Invited Talks

*Strategies for Creation of Technology Ventures*

Michael Summers, Stanford Research Institute, USA

*KANSEI AND BUSINESS*

Shin'ya Nagasawa, Ritsumeikan Univ., Japan

*Genetics of Olfactory Individuality*

Kunio Yamazaki, Monell Chemical Senses Center, USA

*Human Sensibility Ergonomics (KAMSUNG) Project in Korea*

Min Byung-Chan, KRISS, Korea

*The Therapeutic POWER of Music*

Arthur W. Harvey, University of Hawai'i, USA

*Effect of common noise on synchronization of chaotic oscillators*

Jürgen Kurths, Potsdam Univ., Germany

*Music Understanding and Expressive Performance*

Roger B. Dannenberg, Carnegie Mellon Univ., USA

*Transfiguration among the Uncertainty Measures Based on the Evidential Theory*

Yahachiro Tsukamoto, Meijo College, Japan

*Computational Modeling of Kansei Processes for Human-centered Information Systems*

Toshikazu Katoh, Chuo Univ., Japan

*Emergent Communication Mechanisms as KANSEI Technologies*

Katsunori Shimohara, ATR, Japan

*"KANSEI" Technology and Trainable Artificial Brain*

Yong-Guang Zhang, Inst. of Systems Science, Academia Sinica, China

### Sensing and Physiological Foundation of KANSEI

*Heart rate fluctuations in avian embryos that heated and failed to hatch*

Ryuichi Akiyama, Tomomasa Nagashima and Hiroshi Tazawa

*Study of the influence of temporal change in rhythms on sleep levels*

Makoto Fukumoto, Yoshiyuki Kusunoki and Tomomasa Nagashima

*ANN Based Approach to Extract User Frustration from EEG*

Yuko Ishiwaka, Hiroshi Yokoi and Yukinori Kakazu

*Geometry and Popularity of 'KAMON' – Japanese Family Emblems*

Ken-ichi Itakura and Junichi Kiriya

*The perceptivity hysteresis on sound source identification*

Yoshiyuki Kusunoki, Makoto Fukumoto, Yuuki Matsubayashi, Hiroshi Ono,  
Shusaku Nomura and Tomomasa Nagashima

*Study on the human impression of odors by covariance structure analysis*

T. Miura, K. Shimada, A. Terai, H. Yamada, N. Kaneki and H. Tanaka

*Effects of manipulating sleep-wake cycle to sleep consolidation*

Shusaku Nomura, Yoshiyuki Kusunoki, Hiroshi Ono and Yoshifumi Okada

*Relationship between subjective preference of a sound field and alpha waves range of magnetoencephalography (MEG)*

Y. Soeta, S. Nakagawa, M. Tonoike and Y. Ando

*Psychophysiological Responses to the Speed and Driving Mode of a Vehicle*

Eun-Jung Sung, Byung-cChan Min, Soon-Cheol Chung,  
Hyun-jae Choi and Chul-Jung Kim

*Effect of fragrance on autonomic nervous system in cold pressor test*

Akio Terai, Takayuki Miura, Hiroyuki Yamada,  
Koji Shimada, Hirotoshi Tanaka and Noriaki Kaneki

*Unperceivable Text Switch during Saccade*

Takanori Terashima, Masashi Toda, Takeshi Nagasaki and Toshio Kawashima

*Facial EMG in the facial expression of emotions and in the presentation of pleasant and disgusting odors*

Hiroshi Yamada, Noriaki Kaneki, Koji Shimada and Hiroshi Hara

*Interaction of personality and cancer modulator gene*

Mitsukuni Yasui, Taichi Yamaguchi and Naoyuki Sugimoto

## **Modeling, theoretical consideration or analysis of KANSEI**

*Frequency Domain Analysis and Synthesis of the Waveform Fluctuations in Sustained Vowels*

Naofumi Aoki

*Towards a conceptual space for Kansei communication*

Nadia Bianchi-Berthouze

*On the quantitative relationship between robot movements and consequent mental stresses*

Naohiko Hanjima, Ikuo Sasahara, Mitsuhsa Yamashita and Hiromitsu Hikita

*Mutual Access of Different Kinds of Media Data Having Similar Impression*

Teruhisa Hochin and Tatsuo Tsuji

*The tongue color image processing systems*

Naoya Ikeda, Takashi Uozumi and Koichi Ono

*Hierarchical Structure of Assessment Words for the Evaluation of Information of High Order Sensations of Musical Sound*  
Tomoharu Ishikawa and Makoto Miyahara

*Evaluation of fish Freshness using Potentiometric Gas Sensors*  
Noriaki Kaneki, Hirotoishi Tanaka, Koji Shimada, Tkayuki Miura and Hiroshi Hara

*A Method of Obtaining the Aesthetic Impression from Paintings*  
Hiroyuki Kitajima, Toshinori Yamasaki and Tetsuo Hattori

*Extracting Personal Behavior Based on Snapshot Sequence*  
Takeshi Nagasaki, Masashi Toda, Toshimasa Iijima and Toshio Tanikawa

*Influence of the threshold values of 3D CT images on the shape recognition*  
Katsuhiko Ogasawara, Kazuhiro Ogasawara, Takumi Tanikawa, Toshihide Koyama and Motomichi Sakata

*Study of the auditory event-related potential using complexity by entropy*  
Hiroshi Ono, Nobuhiko Nishimura, Yoshiyuki Kusunoki and Tomomasa Nagashima

*Human Color Impression Model for Color Signal Sequence with Minimum Distance*  
Naotoshi Sugano and Youichi Matsushita

*Study on the pattern matching in the data mining*  
Tatsuya Tamaru, Jun-ichi Yatsuyanagi and Tomomasa Nagashima

## **Computer Techniques dealing with KANSEI information**

*Development of a Speech Synthesis System Utilizing a Lisp XML Interface*  
Nofumi Aoki and Alexander Burger

*Dance CG animation tool producing subjective impressions*  
Tkashi Arakai and Kiyoshi Hoshino

*Construction of Kansei Database and Adaptive Search Method for User's Preference*  
Machie Atarashi, Tadaaki Yokoyama, Shao-Chi Wang, Yuichi Sato and Hiroshi Kubo

*Kansei in a Psychodynamic Agent*  
Andrzej Buller and Katsunori Shimohara

*Automatic Composing System: Fugue and Impression of its Music*  
Hiroshi Hasui

*Japanese Sign Language Synthesis with Facial Expressions and Gestures*  
Seiji Igi, Shan Lu and Reiji Watanabe

*Traditional act of playing with electronic media: extending a human's sensitivity*  
Isao Kataoka, Katsunori Simohara, Michio Okada and Osamu Katai

*On the Development of a Virtual Dolphin Therapy System*

Yasuo Kudo, Keita Kojima and Takashi Uozumi

*MorPH – Music al Performance Humanizer*

Tetsuya Maeshiro and Katsunori Shimohara

*Study of the face image processing techniques for back-up and representation of psychological counseling*

Yoshihide Ohbayasi and Takashi Uozumi

*Intelligent document retrieval system enabling to extract dominant sentences in any system-generated clustered documents*

Yoshifumi Okada, Manabu Matsumura, Shunsaku Nomura and Tomomasa Nagashima

*SOAP oriented Mobile Agent System – Kansei Information Processing over the Internet*

Yuichi Sato, Takashi Uozumi, Hiroshi Kubo and Yukinori Kakazu

*Psychological Analysis and Counseling Support Systems*

Takashi Uozumi, Yasuo Kudo and Tsunetsugu Munekata

*Development of a 3D Object Design System for Using KANSEI Information*

Shao-Chi Wang, Hiroshi Kubo, Hiromitsu Hikita and Yuichi Sato

*The Synthesis of MPEG-4 Based Facial Animation by Tracking Feature Points of Facial Images*

Yosuke Yamada, Naofumi Aoki and Tsuyoshi Yamamoto

## **Industrial applications of KANSEI**

*Kansei Design Using 1/f Fluctuations and Development of Integrated Image Processing System*

H. Kitajima, T. Matsunaga, M. Arakawa, M. Ishida and T. Morinishi

*Real Eye Communicator: A Pointing Device for Real World Computing*

Yuichi Matsudo and Ken Mogi

*The Effect of KANSEI Modeling on the Visualization of Imagery*

Miki Namatame and Akira Harada

*AN ALEATORY PROCESS MODELING FOR AESTHETIC DESIGN WORKS*

Yoshiyuki Shiroma

*A Methodology for Evaluation of Artistic Bridge Design from the Structural Mechanics Viewpoint by Qualitative Physics*

Nobuyuki Yabuki

*Application of text mining to extract “KANSEI” information*

Jun-ichi Yatsuyanagi, Tatsuya Tamaru and Tomomasa Nagashima