"Ergonomics in the Digital Age"
August 24 - 29, 2003
Seoul, Korea
VOLUME 3 CONTENTS

INDUSTRIAL ERGONOMICS

◆ AFFECTIVE DESIGN

AFFECTIVE DESIGN

Culture Involvement in Ergonomics Products
Pierre Henri Dejean and Kok-Hin Chan

Development of an Affective Product Design System
Jongseo Kim, Sung H. Han, Gerard Jounghyun Kim, Kwang Jae Kim, and Sang W. Hong

Affective Technology and Affective Human Factors Design in an Era of Rapid Technological Change
Alastair S. Macdonald

Design of a Mobile Phone for Older Adults
H.K.Yun, B. K. Song, and K.T. Jung

Development of a Music Retrieval System Specialized in Individual Kansei Trait
Taro Sugihara, Kazunari Morimoto, and Takao Kurokawa

Event-Related Brain Potential (ERPs) as a Measure of Affective User Satisfaction
Jungchul Park, Sung H. Han, Sang W. Hong, and Rina Maiti

◆ AUTOMOTIVE ERGONOMICS

AUTOMOTIVE ERGONOMICS I

Ergonomic Design of New Interfacing Modalities for Vehicle Cockpit
Jean-Marc Tissot and Claude Lemarchand

Computer-Based Protocol for Human Simulation Report
Mikael Blomé, Dukic Tania, Hanson Lars, and Hogberg Dan

Development of Excavator Simulator and Experiment Using the Simulator
Kiyoshi Fukaya, Takahiro Nakamura, Shigeo Umezaki, Juan Lu, and Yoshiyuki Egawa

Development of Hierarchies of Customer Needs and Impressions for Passenger Car Interiors Based on a Survey of Car Reviews on Internet
Taebeum Ryu, Seungwoo Shin, Ingyu Lim, Kyunghee Oh, Daekee Min, Misun Sun, Heechoon You, Kwangjae Kim, and Myunghwan Yun

A Computer-Aided Ergonomic Panel Layout in Modern Locomotive
Yuanyuan Xu, Fang Weinng, Tian Shengcai, and Yu Wuiqiang

Experimental Study of the Relationship between Ride Comfort and Deceleration Pattern
Koji Omino, Hiroaki Shiroto, and Ayano Saito
AUTOMOTIVE ERGONOMICS II

Evaluation of a Haptic Interface for In-Vehicle Systems
Jessica P. Isaksson, Jonas Nordquist, and Peter Bengtsson

Application of Fuzzy Logic for Modeling Driver Visual Demand and Safety Perception When Operating Control Buttons in Vehicles
Lars Hanson, T. Dukic, K. Holmqvist, L. Sperling, and C. Wartenberg

Driver Acceptance of Adaptive Cruise Control Systems
H.K. Nam and W.S. Lee

A Composite Approach Towards Whole-Body Vibration Comfort Analysis
Bart Haex, H. Druyts, L. Hostens, W. de Craecker, T. Huysmans, P. Coorevits, G. Van der Straeten, R. Van Audenberge, and H. Ramon

The Ergonomic Research and Design Evaluation of Child Car Safety Seating Device
Hsin-Hsi Lai

Useworld.net - Socialware for a Virtual HMI-Community
Kerstin Roese, Sandro Leuchter, and Leon Urbas

AUTOMOTIVE ERGONOMICS III

Fundamental Study on Evaluation of Drivers' Learning and Adaptive Process When Using in-Vehicle Navigation Systems
Toshihisa Sato, Tatsuru Daimon, and Hironao Kawashima

Designing an Automotive Multifunctional Device under Human Factors Criteria
Peter Roessger

Conversations in Cars: The Relative Hazards of Mobile Phones
Peter C. Burns, Andrew M. Parkes, and Terry C. Lansdown

Adaptive Strategies while Driving and Using Mobile Phone When Approaching an Intersection with Traffic Light
Yung-Hui Lee and Bor-Shong Liu

An Analysis of Driving Fatigue: relate with Vehicle Seat Vibration
Se Jin Park, H. M. Seong, and Y. R. Yoon

AUTOMOTIVE ERGONOMICS IV

A Study of Man-Machine Interface Evaluation (MMIE) Model for Child Car Seat Design
Hsin-Hsi Lai

Measurement of Korean Driver's Important Design Reference Points for Seat
Se Jin Park, Sun Woong Kim, and Young Shin Lee

Effects of Seat Angle and Seat Softness on the Comfort of Interface Pressure for Child Car Seats
Hsin-Hsi Lai

The Study of Drivers' Visibility for Vehicle Design
Jen-Cheng Chen, Hsin-Hsi Lai, and Min-Ru Liao

Composite Analysis and Evaluation of Glare at LCD in Locomotive's Driving Environment during Night-time
Wuqiang Yu, Fang Weining, and Yuanyuan Xu

MEASUREMENT AND ANALYSIS OF DRIVER'S BEHAVIOR
Organizer: Ichiro Kageyama

Estimating Sleepiness during Expressway Driving
Mitsuo Yasushi and Masatoshi Yanagidaira

Driver Monitoring for Driver Assistance Systems with Better Acceptance
Sadayuki Tsugawa and Shin Kato

Database of Driving Behavior Measured with Equipped Vehicles in the Real Road Environment
Motoyuki Akamatsu, Yasuo Sakaguchi, Masayuki Okuwa, Tetsuro Kurahashi, and Ken-ichiro Takiguchi

Drivers' Psychophysiological Responses on Abrupt Events
Mieko Ohsuga, Kazuhiro Miya, Toshihide Satake, Masahiko Kurishige, Noriyuki Inoue, and Kazumichi Tsutsumi

Study on a Driver Strain-State Estimating Method Using Facial Temperature
Yuka Ueno

A Study on Evaluation Model of the Mental Workload for Driver
Yukiyo Kuriyagawa and Ichiro Kageyama

HUMAN FACTORS IN FUTURE CAR DRIVING (1): MEASUREMENT OF DRIVER'S STATE
Organizer: Motoyuki Akamatsu

Physiological Assessment while Using In-Vehicle Information System
Hiromi Terashita

Biochemical Measurement for Driver's State Based on Salivary Components
Kiyomi Sakakibara and Toshiyuki Taguchi

Influence of Secondary Task Execution on Driving Performance
Jürg Breuer

Driver Assistance Systems: Guidance for Designers Regarding Human Capabilities
Terry C. Lansdown and Alan Stevens

Driver's Status Assessment Using Physical Measures
Motoyuki Akamatsu, Tetsuo Kurahashi, and Motonori Ishibashi

HUMAN FACTORS IN FUTURE CAR DRIVING (2): ASSESSMENT OF DRIVER'S BEHAVIOR AND PSYCHOLOGY
Organizer: Motoyuki Akamatsu

Evaluation of Cellular Phone Conversation Load while Driving - Effects of Information Processing Load on Gaze Control
Yoichi Asano, Nobuyuki Uchida, and Akira Iihoshi

Exploring Skill Acquisition at the Performance of an In-vehicle HMI Task: Influences of Situational Demands and HMI Design
Georg Jahn, Josef F. Krems, and Christhard Gelau

Basic Assessment of Automobile Navigation Systems from a View Point of Visual Psychology
Toshiki Miura, Kazumitsu Shinohara, and Takahiko Kimura

Developing Measurements of Driving Performance for the Effects of Active Safety Systems
Erik Hollnagel

IMPROVED HUMAN-VEHICLE-INTERACTION IN RAILWAY TECHNOLOGY
Organizer: Manfred Rentzsch
The Project European Driver's Desk (EUDD) - A Multidisciplinary Approach Towards the Future Modular Train
Wolfgang H. Steinicke and Thomas Meissner

Results of a Study Regarding Driver’s Working Conditions at Selected European Railway Companies
Walter Hackl-Gruber and Markus F. Rothbauer

Lessons Derived from Aeronautics for the Design of the EUDD Locomotive Driver’s Desk
Pedro R. Mondelo, Jacques Sorin, Ines Dalmau, and Wolfgang H. Steinicke

Ergonomic Design of an European Driver’s Desk for Cross-Border Traffic
Manfred Rentzsch and L. Gelbert

Developing a Baseline Operational Specification of Driver Requirements for UK ERTMS
W. Ian Hamilton and Nick Colford

Aesthetic Aspects of Workplace Design in Railway Vehicles
Lutz Gelbert

HUMAN MODELING

Modelling a Reach Movement Posture and Discomfort
Raquel Santos, Jean Pierre Verriest, and Kelo Correia da Silva

Digital 3D Ergonomic Anthropometry of Virtual Worker’s Model
Budimir Mijovic and Sarajko Baksa

An Analysis of Hand Measurements for Digital Hand Models
Shin’ichi Kasai, Makiko Kouchi, Natsuki Miyata, and Masaaki Mochimaru

A Method of Simulating Brassiere-Wearing Figures Using Shape Variability of a Three-Dimensional Human Body Model
Dong Eun Choi, Jiang Zhili, and Kurokawa Takao

3D Modeling of Fall Protection Harnesses
Martin Friess

Evaluation of a Surface Curvature Based Landmark Extraction Method for Three Dimensional Head Scans
Peng Li, Brian D. Corner, and Steven Paquette

DIGITAL HUMAN MODELING AND SIMULATION: OPPORTUNITIES AND CHALLENGES
Organizer: Don B. Chaffin

Simulating Hand Grasp Motion: Three Modules Integrated into One Computer Application
Xudong Zhang, Sang-Wook Lee, Peter Braid, Robert Hefner, and Mark Redden

Advances in Predicting Motor Behaviour, Comfort and Performance for Digital Human Models
Nico Dellaman and Aernout Oudenhuijzen

Research for a Strength Based Discomfort Model of Posture and Movement
Heiner Bubb
PRODUCT DESIGN

PRODUCT DESIGN I
A European Standard on Ergonomic Design Principles Under Revision
Martti Launis

Different Cultures, Different Design Solutions: Case Study for Industrial Process Control Systems
Kerstin Roese, T. Govinderaj, T. Komischke, and M. Takahashi

Inside the Destructive Mind - Communication Design for Social Change
Patrick W. Jordan

Applying Ergonomics in Design - Mapping Lines of Sight
Stephen Ward and Jonathan Talbot

Evaluation of a Product Acceptance Based on Human’s Motivation Factors in a Customer Driven Environment
Chui Wa Yeung and John K.L. Ho

Optimal Characteristics of Brassiere Wire Suitable for Breast Types
Hyun Young Lee and Kyunghi Hong

PRODUCT DESIGN II

Integration of Ergonomics into the Product Development Process
Matthias Goebel and Wolfgang Friesdorf

An Anthropometries-based Design Assistant for the Development of Optimized Sleeping Systems

A Study the Elderly Women’s Lower Body Type Classification and Lower Garment Sizing Systems
Ji Youn Moon and Yun Ja Nam

Ease of Closure of Youth Baseball Gloves
Herbert Yoo and Rebecca Bolt

Dimensions for Fitting Footwear
Luximon Ameersing and Ravindra S. Goonetilleke

Smart Footwear for Dynamic Fit and Comfort
Ameersing Luximon, Xiaoming Teo, and Ming Zhang

PRODUCT DESIGN III

How to Make Great Stuff that People Love
Patrick W. Jordan

Research in Design: Situated Individuality versus Summative Analysis
H. Kanis

New Century Supertrends - Lifestyle and User Centered Design
Patrick W. Jordan

Students’ Learning Activity Choices in Distance-Learning Environment
Dong-Yool Kim and Colin G. Drury

Communicating the Priority of Problems Discovered During a Product Evaluation
Heather L. McQuaid and David Bishop
Ergonomic Design in Latin America
Hector Prado Chicaiza and Pedro R. Moncelo

PRODUCT DESIGN IV

Public Space and Street Furniture in Barcelona: Diversity and Accessibility as Ergonomic Factors in Design
Leonardo Mosquera Cemeilo, Aquiles C. Hernandez, and Pedro R. Moncelo

Development of a Human Centered Systemic Showering System for Rehabilitation Care
Makoto Nakamura, Shizuma Yamaguchi, Tetsuro Saeki, Kenichiro Tokuhisa, Eiji Morimoto, Yoshihiro Miyoshi, and Yoshiro Sakai

Evaluation of Kitchen Work Centres and Storage Structures in Households
Veena Sangwan, Rajani Sharma, and Deepa Singh

The Ergonomics' Design of Cutting Tools of Stick “TAHU” at Tahu-Tawa Soponyono Kadiri Manufacturer
Bambang Tjitro S., Budi S. Goutama, and Denny Yoananta

On Behavior Based Assessment of Kitchen Design - Towards Modeling of Cooking Behavior
Kazuo Nakamura and Hiroko Takahashi

Optimal Positioning of Various Operating Interface on Walls in a Toilet
Satoshi Kose, Ken Nunota, Yoshiaki Goto, and Shinji Tanaka

PRODUCT DESIGN V

Developing a Scale for the Subjective Evaluation of the Usability of Interactive Consumer Products
Susan Harker and James Tilley

Integrated Evaluation System for Multimedia Contents
Tetsuri Inoue, Takashi Kawai, Mizuho Kazama, Asaka Ito, Hiroyo Fujimura, Tsuyoshi Hanamura, and Naoki Sakaki

Cellular Phone Usability Evaluation: Acquisition of Task Performance Data Using Public Telecommunications Network
Kenji Ido, Kei Tomioka, and Hiroyuki Ikemoto

Development of Stereoscopic 3D Display System with Optical Correction
Takashi Shibata, Takashi Kawai, Keiji Ohta, Nobuyuki Miyako, Yoshihiro Yoshihara, Tetsuri Inoue, Tsuneto Iwasaki, and Nobuyoshi Terashima

PRODUCT DESIGN VI

New Design of a Planar-Electrogoniometer to Measure Knee Flexion-Extension Angle
Rina Maiti and Gaur G. Ray

How to Optimize Bicycle Helmet Design in Order to Avoid Traumatic Scull and Brain Damage
C. Van Lierde, Bart Depreitere, Jos Vander Sloten, Remy Van Audekercke, Georges Van der Perre, and Jan Goffin

One-Third Octave Band Spectral Characteristics and Human Sensation of Fabric Sound
Eunjou Yi, Gilsoo Cho, John G. Casali, and Gary S. Robinson

Subjective Evaluation of a Commercial Industrial Inspection Workplace versus an Ergonomically Designed System with Product-Specific Lighting Scenarios
Johannes Bronbach, Erwin Keller, and Helmut Strasser

School Children and Ergonomic Risks
Sonja Pavlovic and Miroljub Grozdanovic

How Much Longer is Longer? The Meaning of Comparative Modifiers
PRODUCT DESIGN I

The Use of Three Dimensional Body Scan Data for Body Measuring with AutoCAD Program
Jongsuk Chun and Yonsun Chung

The Comparison of Body Measurements at Four Different Postures for Apparel Construction
Jongsuk Chun and Seolyoung Oh

Standardization of Anthropometric Measurements for Korean Standards
Ku Ja Kim, Soon Won Lee, Hwa Kyung Sung, and Myong Sook Jung

Development of an Automatic System for the Measurement of Crotch Height
Byung Chan Min, Eun-Ho Lim, and In-Hyeng Kang, Boo-Ja Sim, and Chul-Jung Kim

Large Displays in Controlling, Monitoring and Surveillance Rooms
Guy Van Wijmeersch

A Comparison Study on Behaviors of Korean Mobile Phone Users
Hoon-Yong Yoon, Woo Soon Yoon, Sung-Ha Park, and Jae-Min Park

PRODUCT DESIGN II

Migration from Technological Innovation to Emotional Innovation
Nicolas Bouché

New Hand-Piece Type Light Irradiator for Hardening the Cavity Filling Materials in Dental Practice
Masayuki Kawamoto, Nobuhiko Kishida, Kazuhisa Sunada, Tedao Kohmi, Masayoshi Inoue, and Kazunari Matoba

Development of Vibration Reducing Tractor Seat by Evaluation of Dynamic Ride Quality
Sun Woong Kim, Se Jin Park, Chul Jung Kim, Young Shin Lee, and Kyu Sik Kwon

Thermal Sensation and Contact Temperature for Lap-Top Use of Notebook PCs
Kiyoko Moriguchi and Kazuo Tsuchiya

Applied Research of PET Bottles Recycling for Product Manufacturing
Julio Silva, Bernardo Senna, Jorge Lopes, and Pedro Zöllner

Suitability Evaluation of Jean Pants for Women Using 3D Scanner
Hae Kyung Kim, Chu Yeon Suh, Eun Young Suk, and Soon Jee Park

A Study on the Frequency Weighting Curve for the Riding Comfort Evaluations of the Railway Vehicles- Motion Sickness in Tilting Trains
Hiroaki Suzuki and Hiroaki Shiroto

PRODUCT DESIGN III

Ergonomic Evaluation of Monocular Head Mounted Display
Kousuke Hirasawa, N. Shiramato, T. Okamoto, Y. Sato, A. Michimori, and T. Makita

Fabric Image and Preference for Male’s Formal Suits

Ken Nah
Young Ah Kwon and Ji-Eun Lee.

Sensibility Evaluation of Drivers to the Speed and Driving Mode in a Driving Simulator
Hyo-Jeong Jeon, Byung-Chan Min, Eun-Jung Sung, In-Hyeng Kang, and Chul-Jung Kim

Development of Pillow Design Method Depending on the Head Shape
Sejin Park and Hyun Ja Lee

Development of Human-Bed System for Comfortable Bed Selection
Sejin Park and Hyun Ja Lee

Evaluation and Development of a New Concept of School Furniture
Teresa Froufe and Francisco Rebelo

PRODUCT DESIGN IV

Digital Body Anthropometry in Virtual 3D Ergonomical Forming of Cockpit of the SUV
Sarajko Baksa, Budimir Mijovic, and Ines Baksa

Human Sensibility Evaluation on Positive and Negative Visual Stimuli Using On-Line Subjective Assessment
Byung Chan Min, Soon-Chul Chung, In-Hyeng Kang, Ji-Yeon Choi, Sang-Tae Lee, and Chul-Jung Kim

Comparison of Kansei Words Expressing about Hand of Cloth between Japan and Korea
Dong eun Choi, Kazunari Morimoto, Takeo Kurokawa, and Koo Kang

Creating a Child-Friendly Computer Environment: Development of a Computer Desk and Chair for Primary School Children
Akutsu Masahiro and Madoka Yamamoto

Operability Evaluation of Pedals by Measurement of Psycho-Psychological Responses in Foot Transfer from the Accelerator to the Brake Pedal
Kazushi Mitsui, Satoshi Hosoya, Masayoshi Kaminoue, Nobuyuki Minamihata, Tsugutake Sadayama, and Yoshio Shimizu

Segmentation of Adolescent Students According to Their Lifestyle, Individualism-Collectivism and Sensibility
Young joo Na and Kyung mi Han

Visual Behavior and Impressions of Pedestrians under Roadside Illumination and Foot Illumination
Manabu Takasaka, Hisahiro Noda, Noriko Yagi, and Tadahiko Fukuda

PRODUCT DESIGN V

The Evaluation of the Facial Lotion Package 1: How the Impression of the Whole Box Influences the Decision-Making Process of Consumers
Elena Kanno, Mai Toda, Natsuko Miura, Naoko Takahara, and Tadahiko Fukuda

The Evaluation of the Facial Lotion Package 4: The Analysis of the Eye Movement
Yasuhiko Tanaka, Aya Tonooka, Naoko Takahara, and Tadahiko Fukuda

Proposal for Universal Design Framework Approach- Case Study for Universal PC
Kazuhiko Yamazaki

The Comparison and Utilization of the Current Dress Form and Human Body for Reasonable Clothing Structure
Seohoe Lee

Anthropometric Data of Selected Filipinos in Metro Manila for Residential Seat Design: A Pilot Study
Avigail A. Vergara and Aura C. Matias

The Evaluation of the Facial Lotion Package 2: How Design Influences Purchasing Decisions
Naoko Takahara, Elena Kanno, Kensuke Nakata, and Tadahiko Fukuda

XV
Determining a Neck Curve on a 2-D Block Pattern for a Garment
Yoshio Noguchi and Ako Urano

The Evaluation of the Facial Lotion Pakage 3: The Effective Advertising Copy of Backside Outer Carton
Kayoko Watanabe, Raika Tsuzura, Keiko Watanabe, Yukiko Nomura, and Tadahiko Fukuda

KANSEI ENGINEERING

Revised Semantic Difference Method- Application of SDM Method to the Image Analysis of Hollywood Actress
Eitaro Masuyama and Katsuichiro Dohkan.

Tactile Symbols with ATM for Visual-Impaired Users
Kazuhiko Hirano and Masatoshi Nomura

A Survey of Images of the Underground Space: Comparison between Korea and Japan
Kyung Duk Cho and Sigeru Ichihara

The Orientation of the Stripes on the Wall Affects the Apparent Room Size
Shigeru Ichihara and Miho Endo

2-D Representation of 3-D Image Space Based on the Theory of Visual Space Distortion - Studies on Subjective Perspective Transformation
Tetsuya Kajitani and Hitoshi Watanabe

KANSEI ENGINEERING / KANSEI ERGONOMICS

A Study of Basic Kansei Rule about a Combination of Color and Form Ratio
Mitsuo Nagamachi and Tatsuo Nishino

Extraction of Design Rules for Basic Product Designing Using Rough Set Analysis
Tatsuo Nishino and Mitsuo Nagamachi

Smoothing of Ordinal Categorical Data and Its Application to Analysis of 2-Dimensional Data of Hair Design Kansei Evaluation Data
Shigekazu Ishihara, Keiko Ishihara, Mitsuo Nagamachi, and Tatsuo Nishino

A Study on the Visual Evaluation of Changes in Bridge Structure
Makoto Ichitsubo, Hiroshi Yamada, Hiroaki Maruoka, Shigekazu Ishihara, Keiko Ishihara, Tatsuo Nishino, and Mitsuo Nagamachi

Evaluation of Human Kansei to Food
Taki Kanda

Kansei Ratings and Time Dependencies
Jorgen Eklund and Liisa Kiviloog

UNIVERSAL DESIGN
UNIVERSAL DESIGN
Organizer: Toshiki Yamaoka

How to Employ Design Practical Guidelines and Analyze Requirements
Toshiki Yamaoka, Kazuhiko Yamazaki, Akira Okada, Sohsuke Saito, Masatoshi Nomura, and Koji Yanagida

Construction and Application of the User Segments Table as a Tool Proposed in the Universal Design Practical Guidelines
Akira Okada, Sohsuke Saito, Masatoshi Nomura, Koji Yanagida, Toshiki Yamaoka, and Kazuhiko Yamazaki

Design Process for Universal Practical Guideline by Using UD Matrix and UD User Segments
Kazuhiko Yamazaki, Sohsuke Saito, Masatoshi Nomura, Koji Yanagida, Toshiki Yamaoka, and Akira Okada

Disability Participation to Design an Assistive Product for Cerebral Palsy Patient
Chien-Hsu Chen, Han-Ting Ke, and Fong-Gong Wu

Shoulder-Care Product Design for Computer-Users
Fong-Gong Wu, Zo-Han Chang, and Chien-Hsu Chen

MOBILE DEVICES

DESIGN AND EVALUATION OF MOBILE INTERFACE
Organizer: Hiroshi Tamura

Action Models of Cellular Text Input
Hiroshi Tamura and Masami Choui

Visibility of Mobile Phones - Display Characteristics and Visual Function
Masako Omori, Tomoyuki Watanabe, and Masaru Miyao

Usability Evaluation for Mobile Phones with Built-in Camera Based on Digital Image Analysis
Tomoyuki Watanabe, Masako Omori, and Masaru Miyao

An Intuitive Navigation Method Based on the Window Metaphor Using the Portable Information Terminal
Yu Shibuya, Tomoya Narita, Takeshi Yoshida, Itaru Kuramoto, and Yoshihiro Tsujino

Reconsideration and Proposal of Mobile Interface Design
Katsuo Inoue, Kenta Kawahara, Tomoaki Tsukada, and Masahito Tsuchiya

SOCIAL IMPACT OF MOBILE COMMUNICATION
Organizer: Masaru Miyao

Cross Border Text Input Methods
Masami Choui and Hiroshi Tamura

Student’s Responses to Text Messaging in University Classes
Masami Choui and Sayaka Uenunai

Enhancing Interaction in School Hours by Using the Cellular Phones
Akinobu Ando, Hiraku Abiko, and Makoto Kinefuti

Its as a Killer Application for 3G Wireless Communications
Chung H. Lu

For Appropriate Use of Digital Everyday Appliances
Hiroshi Tamura
GENERAL

MOBILE SERVICE WORK
Organizer: Holger Luczak

Investigation of Personnel Qualification Requirements and Responsibilities by Mining Job Posting Web Pages
Zhizhong Li, Dirk Roesler and Katalin Meszlery

Task Analysis of CEP Service Drivers in Terms of Ergonomics and Logistics
Jun Sang Park, Katalin Meszlery, Dirk Roesler, Matthias Brueggmann, and Holger Luczak

Realization of an Open Framework for Shared Workspaces and its Application for a Community Portal
Alexander Kunzer, Kerstin Rose, Ludger Schmidt, and Holger Luczak

HUMAN ASPECTS FOR UBIQUITOUS COMPUTING
Organizer: Hirohiko Mori

Personal Fitting Driver Assistance System Based on Driving Behavior Model
Motoyuki Akamatsu and Yasuo Sakaguchi

Realization of a Compact City Using Ubiquitous Urban Information Technologies
Sawada Hidekazu and Tadashi Hana

A Tangible User Interface Approach for the Calm Technology - Toward Realizing Free Metaphor User Interface
Hirohioko Mori

Ubiquitous Computing and Human Communications
Hirasawa Naotake and Mitsuhiko Karashima

ERGONOMIC ASPECTS OF NOTEBOOK PC USING
Organizer: Ryoji Yoshitake

Recent Ergonomic Features of Notebook PCs
Ryoji Yoshitake and Kiyo Moriguchi

Ergonomic Evaluation of Work Posture for Using Notebook PC
Shin Saito, Zojiro Katoh, and Masaru Miyao

Ergonomic Concerns in the Use of Notebook PC
Hiroshi Jonai, Maria Beatriz G. Villanueva, Midori Sotoyama, Tatsuya Marumoto, and Susumu Saito

Towards the Promotion of Health and Safety in the Use of Notebook Personal Computers
Susumu Saito, Hiroshi Jonai, and Maria Beatriz G. Villanueva

CONCEPTUALISATION AND MEASUREMENT OF COMFORT/DISCOMFORT FOR DIFFERENT PRODUCTS I
Organizer: Michiel de Looze

Seat Appearance and Sitting Comfort
Michiel De Looze, Frank Krause, Karen Reijneveld, Pieter Desmet, and Peter Vink

What Is in a Word? Describing Affect in Product Design
Martin Helander and Desmond Wei Loong Tay

Perspectives on the Feasibility of Index Formulation (Seat Comfort)
Denis A. Coelho and Sven Dahlman
A Method for Evaluating Comfortably in Door Operations by Measuring Their Mechanical Environmental Factors
Wataru Asaine, Akiko Mori, and Akio Baba

Optimizing Wearing Comfort of Helmeted Powered Respirators
Ze Li and Klaus-Dieter Frohner

CONCEPTUALISATION AND MEASUREMENT OF COMFORT/DISCOMFORT FOR DIFFERENT PRODUCTS II
Organizer: Michiel de Looze

Just Noticeable Pressure Differences on the Buttocks
Richard H. M. Goossens and Snijders C. J.

Measuring Comfort and Ride Roughness in Mining Vehicles
Barbara McPhee and Gary Foster

Objective Seat Evaluation Methodology for Suspended Seats
Ivo Hostens, Bart Haex, Heinz Schaerli, Alex Bullinger, Oliver Stefani, Alfred Dangelmaier, Evangelos Bekiaris, and Angelos Amditis

An Ergonomic Evaluation of Operability for Key Manipulation of Mobile Devices
Hideki Oyama, Yosuke Ohwa, and Kageyu Noro

An Evaluation of Psychological Comfort of Users on Exterior Lighting
Masanori Takemoto and Yusaku Okada