Contents

Part I  Design of Human Interface and Affective Communication

Questionnaire Survey Result of the Use of Communication Robots for Recreational Activities at Nursing Homes .............. 3
Teruko Doi, Noriaki Kuwahara and Kazunari Morimoto

Representation of Fundamental Movements and Pauses for Archiving Traditional Skills ........................................ 15
Hiroki Nomiya and Teruhisa Hochin

Consideration of Appropriate Photo Image to the Conversation of the Elderly and Youth by Using Facial Expression Analysis ........ 29
Miyuki Iwamoto, Noriaki Kuwahara and Kazunari Morimoto

Development of the Micro-Silk Through the Breeding of Transgenic Silkworm ..................................................... 41
Kyu-Beom Kim, Min-Ju Kim and Kang-Min Choi

Study on Design Elements of Cardinal Direction Based on Cognitive Analysis ......................................................... 49
Min Ju Kim, Kaznari Morimoto and Noriaki Kuwahara

Perceptions on Clothing by Elderly Females ......................... 57
Saori Kitaguchi, Mio Matsumoto, Tetsuya Sato and Kanji Kajiwara

Interactive System Supporting Children Pleasurable Learning ...... 67
Wafa Almukadi and Lucas Stephane

Which Design Seems Easy to Use? An Analysis of Individual Differences in Mental Models .................................. 79
Yukiko Nishizaki, Toshihisa Doi and Toshiki Yamaoka

Presenter Supporting System with Visual-Overlapped Positive Response on Audiences ........................................ 87
Keiko Yamamoto, Kyoko Kassai, Itaru Kuramoto and Yoshihiro Tsujino
Affective Design Factors Derived from an Analysis on Body Shape and Waist Size of Male Workers and Design Concept of Work Pants of Large Waist Size ............................................ 95
Kanako Ohsawa, Kazunari Morimoto, Yoshinari Gyoba, Minju Kim and Masanobu Nishimura

Adaptive UI for Enhanced Music Experience ......................... 105
Irwin Tay Khai Cheng and Swee Lan See

Using Holograms to Increase Interaction in Museums ........ 117
Alexiei Dingli and Nicholas Mifsud

Human Friendly Applications of Functional Fibers in Aging Society .................................................. 129
Chiyomi Mizutani, Akemi Yahata, Katsusaza Takahashi, Hirofusa Shirai, Takako Tokuyama and Kanji Kajiwa

Part II Kawaii/Affective Value Creation

A Perceptual Study of Robot Design in the Japanese Robot Anime Series, “Mobile Suit Gundam” .......................... 139
Naoto Hayashi and Masashi Yamada

A Perceptual Study of Monster Design in the Context of Cool Japan Contents ........................................... 147
Riu Yanagida and Masashi Yamada

Proportion of Facial Features for Constructing a “Moe” Character ... 155
Yudo Iijima, Yuki Wada and Masashi Yamada

Impression of Characters in the Japanese Magical Girl Anime Metaseries, “Pretty Cure” ........................................ 165
Shizuka Oosawa and Masashi Yamada

Evaluation of Levels of Kawaii Ribbons Among Genders and Generations of Japanese and Saudi Arabians .......... 171
Enayyah Barnawi and Michiko Ohkura

The Study of Kawaii Feeling by Using Eye Tracking ................. 185
Tipporn Laohakangvalvit, Ikumi Iida, Saromporn Charoenpit and Michiko Ohkura

A Soft-Computing Approach for Quantification of Personal Perceptions ..................................................... 199
Luis Diago, Julian Romero, Junichi Shinoda, Hiroe Abe and Ichiro Hagiwara
The Effect of Immersive Head Mounted Display on a Brain Computer Interface Game .................................. 211
Yudai Iidal, Daisuke Tsutsumi, Shunichi Saeki, Yuya Ootsuka, Takuma Hashimoto and Ryota Horie

Women’s Negotiation Support System—As Affected by Personal Appearance Versus Use of Language ......................... 221
Kohei Suzuki, Hikari Tamada, Ryuichi Doizaki, Yumi Hirahara and Maki Sakamoto

Evaluation of Feelings of Excitement Caused by Auditory Stimulus in Driving Simulator Using Biosignals .................. 231
Kodai Ito, Yoshihiro Harada, Tomoki Tani, Yuya Hasegawa, Haruhiko Nakatsuji, Yousuke Tate, Hiroki Seto, Takeshi Aikawa, Norio Nakayama and Michiko Ohkura

Effects of Impression Evaluations on Structure of Living Rooms in Narrow Site Houses ........................................... 241
Michiko Ohkura, Wataru Morishita, Yae Aoyagi and Yoko Watanabe

Affective Evaluation for Material Perception of Bead-Coated Resin Surfaces Using Visual and Tactile Sensations: Preparation of Adjective Pairs to Clarify the Color Effect .......................... 251
Wataru Morishita, Ryuji Miyazaki, Michiko Ohkura, Masato Takahashi, Hiroko Sakurai, Kiyotaka Yarimizu and Akira Nakahara

Three Layer Model of Aesthetics .................................................. 259
Masaaki Kurosu and Ayako Hashizume

Part III Affective/Emotion in Design Education (ADE)

Action Research of Importing Digital Service into Local Brand Marketing—The Workshop Practice ......................... 269
Tsen-Yao Chang

What Makes a Good UX Questionnaire? User-Centered Scorecard Development ......................................................... 281
Seunghyun “Tina” Lee and Melody Ivory

A Study on the Rationality of Office Feng Shui Based on Ergonomics ................................................................. 295
Xinke Shen, Wei He, Bo Chen and Li Ding

When Design Encounters Anthropology: Study on Approaches Where Anthropology Gets Involved in Design .................. 305
Mingyue Lyu
Part IV  Design for Smart Environments and Well Living

Relationship Between Kansei Value and Recognition on Abstract Metaphorical Beverage Packages .......................... 317
Yigang Huang and Namgyu Kang

Research on Lift Assistance Seat for Elderly People—Focusing on Analysis of Motion Capture and EMG .......................... 329
Toshiki Matsuo, Kenta Yamada, Wonseok Yang and Alireza Ahrary

Lighting the Way to Independent Living: Preventative Methods for Senior Health Inspired by Daylight .......................... 339
Leilla Czunyi and David Craib

The Awareness of Human’s Sedentary Behavior in the Workplace and Product Design Guidelines .......................... 349
Dosun Shin and Yue Huang

Rodrigo Balestra F. de Paiva

Part V  Emotional Engineering

Affective Speech Design: Emotional I/O .................................. 377
Logan T. Hale

Aesthetic Intelligence for Effective and Pleasurable Design ........ 385
Daniela Alina Plewe and Carsten Röcker

Perceived Quality and Craftsmanship—Common Terminology Proposal for Automotive World with Guidance of Kansei Engineering ............................................. 391
Emel Ünlükal İlhan and Hafize Çelik

Accessing the Function of Emotion in Appreciated User Experience Design .................................................. 401
Amic G. Ho

Affective and Pleasurable Values that Ergonomics Provides to the Product Design Inspired and Produced from Natural Amazon Resources .................................................. 411
Susana Paixão-Barradas, Karla Mazarelo and Mirella de Sousa

Method to Handle Haptics Optimization of Products Based on Simulation Models ............................................. 423
Peter Gust and Frank Mersch
Oliver Korn, Peter Muschick and Albrecht Schmidt

Japanese Packaging Design: An Approach Through Ideogram Language .................................................................................. 447
Marlon Mercaldi, Ekaterina Emmanuil Inglesis Barcellos, Luiz Carlos Paschoarelli and Galdenoro Botura

Affective Response to Photographs of Natural Landscapes Based on OCEAN Model .......................................................... 459
Andrea Low Hui Ling, Victoria Lim Sue-Wei and Swee Lan See

Using Biometric Data to Assess Affective Response to Media Experiences ............................................................................... 471
Charlotte Thodberg Jensen, Anne Mette Kærne Jessen, Lotte Ishoy Jorgensen, Jeanette Kølbæk Laursen, Lars Bo Larsen and Jacob Lyng Wieland

Attribution of Meanings to Eco-materials Through the Expressive-Sensory Experience ................................................. 481
Stefania Camplone

Tackling Design Fixation of Cultural Product Designers Through Homeomorphism ...................................................... 491
Edward C.K. Hung

A Trial on Systematic Terminology Approach to Aid for Delight Design .................................................................................. 499
François Charles Rovere, Tamotsu Murakami and Hideyoshi Yanagisawa

A Kansei Database Framework for the Delight Design Platform ...... 511
Hideyoshi Yanagisawa, Sohya Nakano and Tamotsu Murakami

A Walking Promotion Method Using the Tuning of a Beat Sound Based on a Two-Dimensional Emotion Map ...................... 519
Eiichiro Tanaka, Keiichi Muramatsu, Yusuke Osawa, Shozo Saegusa, Louis Yuge and Keiichi Watanuki

Haptic Feedback System Using Informative Resisting Torque for Lever Joystick Operation .................................................. 527
Kazunori Kaede and Keiichi Watanuki

Preliminary Study of Ontological Descriptions of Emotions Using Motion Assistance Apparatus ............................................. 535
Keiichi Muramatsu, Eiichiro Tanaka and Keiichi Watanuki

Perceived Quality and Craftsmanship: An Engineering Approach to Trunk Lid Cutline ......................................................... 543
Emel Ünlükal İlhan, Celal Utku Ünal and Yaşar Evren Altınok
Analysis of Brain Activity During Change of Indoor Thermal Environment ................................................................. 555
Keiichi Watanuki and Lei Hou

Emotional Entrainment Enhancement Using an Active Display Interface ........................................................................ 563
Teruaki Ito and Tomio Watanabe

Emotion and Decision-Making in an Age of Unpredictable Changes ................................................................. 571
Shuichi Fukuda

Part VI Empathetic Design

Indirect Teaching for All and Autism Spectrum Disorder (ASD) in Design Class (ITAD) Encouraging Their Emotional Empathy ........ 581
Hyun-Jae Jo, Seung-jin Chung and Debra Satterfield

Affective Multimodal Story-Based Interaction Design for VR Cinema ................................................................. 593
Jiyoung Kang

Can Digital Signage in Subway Stations Serve as a Valid Communication Platform for Citizens? ............................ 605
Minjeong Kang

Designing for People’s Pleasure: Amusement Parks in North Korea .......................................................................... 615
Heesun Choi

Comfort Experience in Everyday Life Events ........................................................................................................... 625
Naseem Ahmadpour

Uplift: Happiness and Communication in the Context of Cancer ........................................................................ 633
Salih Berk Ilhan

Part VII Designing Affective, and Pleasurable Interactions

Designing Alternative Interactive Techniques to Aid in Prosthetic Rehabilitation for Children ................................................................. 647
Matt Dombrowski, Peter Smith and Ryan Buyssens

Towards Joking, Humor Sense Equipped and Emotion Aware Conversational Systems .................................................. 657
Pawel Dybala, Motoki Yatsu, Michal Ptaszynski, Rafal Rzepka and Kenji Araki

Human Avatars in Playful and Humorous Environments ......................................................................................... 671
Anton Nijholt
Designing a Humorous Workplace: Improving and Retaining Employee’s Happiness .......................................................... 683
Marvin Andujar, Anton Nijholt and Juan E. Gilbert

Bongkeum Jeong, Seung-In Kim and Sanghee Hah