

Contents

Part I Design Theory and Research Methodology

A Case Study in Participatory Service Design for Rural Healthcare System in India Using a Pattern Language.	3
Pramod Khambete, Uday Athavankar, Pankaj Doke, Ratnendra Shinde, Debjani Roy, Sujit Devkar, Sanjay Kimbahune and Sujata Chaudhary	
How Different Models of Value Change Affect Emergent Patterns in Design Practice: Agent Based Simulations	15
Vishal Singh and John Gero	
Multidisciplinary Design Behaviour Using Sketching and Mental Imagery: A Literature Review and Considerations for Future Research	27
Mia A. Tedjosaputro, Yi Teng Shih, Patrick Pradel and Chantelle Niblock	
Ways of Drifting—Five Methods of Experimentation in Research Through Design	39
Peter Gall Krogh, Thomas Markussen and Anne Louise Bang	
Design Space Configuration for Minimizing Design Information Entropy.	51
Petter Krus	
Design Research Model: Establishing a Link Between Design Education, Practice and Theory	61
Gayatri Menon	
Conduplicated Symmetries: Renegotiating the Material Basis of Prototype Research.	71
Arne Berger, Michael Heidt and Maximilian Eibl	

Notes for Rule-Based Design from Cognitive and Visual-Computational Models, Especially Shape Algebras 79
Paul Varghese

The Roles of Engineering and Spirit in Product Design 91
S. Saleem Ahmed

Holistic Approach to Product Design 101
S. Saleem Ahmed

Expanding DRM Framework to Formulate Supreme Causal Models from Research Articles in the Area of Product Disassembly 109
S. Harivardhini and Amaresh Chakrabarti

The Taguchi Method as a Means to Verify the Satisfaction of the Information Axiom in Axiomatic Design 121
Sergio Rizzuti

Part II Design Aesthetics, Semiotics, Semantics

Identification of User Perceptions and Design Parameters of Vehicle Cluster Instruments in Different Cultures 135
Pratap Kalenahalli Sudarshan, Matthias Wagner, Olesja Marinets and Michaela Kauer

Designing Alternative Paradigm for Traditional Visual Storytelling 145
Saptarshi Kolay and Shatarupa Thakurta Roy

An Introduction to the Tendency of Online Cosmetic Advertisement Design 159
Yen-Ting Lai, Ching-Yuan Huang and Mu-Chien Chou

Investigating Shape Comparison Tools for Benchmarking Differences in Product Appearance During Product Styling 169
Charlie Ranscombe, Philip Kinsella, Paul R. Stoddart and Gavin Melles

Research in Visual Ethnography Focusing on Markets of Kanpur 181
Siddharth and Satyaki Roy

How to Impress Your User: Guideline for Designing the Product Impression 193
Constantin von Saucken, Andreas Wenzler and Udo Lindemann

Creating Brand Recognition Through Product Design 205
Pablo Marcel de Arruda Torres

Kundan Jewellery Design-Diverse Style of Form Clusters a Methodical Study of Their Characteristics	215
Parag K. Vyas	
Sound Symbolism in India Comic Books	227
Subir Dey and Prasad Bokil	
Anatomy of Bengali Letterforms: A Semiotic Study	237
Subhajit Chandra, Prasad Bokil and Darmalingam Udaya Kumar	
Redefining the Grid in Visual Design	249
Prasad Bokil	
Investigating Frequently Used Stroke Sequence, of Handwritten Devanagari Letters, by Observing Second Script Learners	261
Santosh Kshirsagar and Ravi Poovaiah	
A Design Practice on Communicating Emotions Through Visual, Tactile and Auditory Simulations	279
Secil Ugur Yavuz, Monica Bordegoni and Marina Carulli	
Title Design in Bollywood Film Posters: A Semiotic Analysis.	291
Mohammad Shahid, Prasad Bokil and Darmalingam Udaya Kumar	
Processes, Methods and Knowledge Creation in Jewellery Design Practice	303
Noor Adila Mohd Rajili, Andre Liem, Elin Olander and Anders Warell	
Aesthetic Design Optimization of a Sustainable Human Cum Electric Powered Vehicle Through Implication of Golden Ratio Perspectives	315
Sachin Mishra and Pradeep Kumar	
Cognitive Theories of Product Emotion and Their Applications in Emotional Product Design	329
Anirban Chowdhury, Swathi Matta Reddy, Debkumar Chakrabarti and Sougata Karmakar	
Designing Meaning to Change Consumer Behaviour: An Exploration . . .	341
Gregor Waltersdorfer, Kilian Gericke and Lucienne Blessing	
Craft: A Narrative Barometer for Interior-Architecture Specific Focus on Stone Crafts in Religious Buildings of India	353
Smriti Saraswat and Gaurav Raheja	

Comparison of Indian and Central European Shape Contour Meaning Comprehension	363
Vanja Čok, Mihael Kline, Nikola Vukašinović and Jože Duhovnik	
Aesthetic Design Process: Descriptive Design Research and Ways Forward	375
Santosh Jagtap and Sachin Jagtap	
Mapping Sentences into Graphics to Communicate Engineering Design Information: Concept Revisited	387
Zeundjua Tjiparuro	
 Part III Human Factors in Design	
Competitive Play in Children with Intellectual Disability: Informing Design.	399
Aakash Johry and Ravi Poovaiah	
Redesign and Ergonomic Analysis of Scoop Stretcher for Full Body Immobilization During Casualties.	411
Mohammed Rajik Khan, Preeti Giri and Pavan Kumar Palarapu	
Design and Ergonomic Evaluation of Multipurpose Student's Bed.	421
P. Pavan Kumar and B.B.V.L. Deepak	
Ergonomic Risk Assessment on Women Handloom Weavers in Assam with the Introduction of Jacquard	431
Sangeeta Pandit and Debkumar Chakrabarti	
Evolving Process of Application of Methodology for Visual Perception of Urban Place: Case Study of Kolkata.	443
Mainak Ghosh, Sanjib Nag and Satyaki Roy	
A Study on Entrances and Foyers in Shopping Malls and Their Role in Influencing Perceptions.	457
Himanshu Bansal, Pradeep Yammiyavar and P.Y. Anita	
PSS for Healthcare Service Engineering, a User-Centered Approach Using Social Network	469
Tu Anh Duong, Romain Farel, Julie Stal-Le-Cardinal and Jean-Claude Boquet	

Skimming and Scrutinizing: Quantifying Two Basic Patterns of Visual Behavior in Design	479
Quentin Lohmeyer, Moritz Mussnug and Mirko Meboldt	
Sound Association for Product-Sound Design Using Semiotics	491
Kumari Moothedath Chandran, Prajakta Prabhune and Dibakar Sen	
Experience Tradeoff with Technological Advancement.	505
Bharat Sarkar and Shatarupa Thakurta Roy	
Cross-Cultural Issues in Working with Users in the Design of Interactive Systems.	515
Helen Petrie, Tanja Walsh, Olufunmilayo Odutola and Lei Ang	
Design of UI Component Model for Evaluation of Medical UI of Ventilator System in Intensive Care Unit	527
Ganesh Bhutkar, G.G. Ray, Dinesh Katre and Shahaji Deshmukh	
Designing of Mould for Brickfield Workers	539
Bijetri Bandyopadhyay, Amar Kundu and G.G. Ray	
Objectifying Usability in Product Design	549
Ranjit Konkar	
Assessment of Cause of Difficulty in Assembly Tasks	563
B. Santhi, B. Gurumoorthy, Amaresh Chakrabarti and Dibakar Sen	
Affect Component and Errors During Numerical Data Entry—A Study	573
Shrikant Salve, Shanu Shukla and Pradeep Yammiyavar	
 Part IV Design Training and Education	
The Pedagogy of Self-expression in Animation Film Design.	587
Pooja Pottenkulam	
Convergence—Divergence Paradigm in Design Education Curriculum	599
Ravi Mokashi Puneekar	
Moving with the Times in India Re-thinking the Foundation Course in Design	611
Indrani De Parker	

Quality Education Over Quantitative Education at Primary Level in India.	621
Priyanka Bharti and Bishakh Bhattacharya	
The Difference in Design Problems and Its Effect on Divergent Thinking in Middle School Children.	631
Anisha Malhotra and Ravi Poovaiah	
Design in the School Classrooms—Applying Design Tools to Improve Quality of Education.	641
Kshitiz Anand and Jean Haag	
Investigation of Key Principles of Game-Play and Their Abstraction to Enhance Learning in Rural Children	653
Abdul Sameer Ashraf, Aditi Padhi and Ravi Mokashi Puneekar	
Effectiveness of Precedent Based Design Pedagogy—A Case for Sustainability Precedents	665
Rupa Agarwal and Ravi Poovaiah	
Design Training via Industry Sponsored Projects in Undergraduate Engineering Program	677
Swaminathan Balachandran	
Author Index	687

ICoRD'15 – Research into Design Across Boundaries

Volume 1

Theory, Research Methodology, Aesthetics, Human
Factors and Education

Chakrabarti, A. (Ed.)

2015, XXV, 689 p. 241 illus., 119 illus. in color.,

Hardcover

ISBN: 978-81-322-2231-6