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## TABLE OF CONTENTS

### VOLUME 1

#### 1. DESIGN THEORY AND RESEARCH METHODS

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DISCRIMINATING ENGINEERING INFORMATION INTERACTION USING EYE TRACKING AND AN INFORMATION OPERATIONS MODEL .....	1
<i>Boa D. R., Hicks B. (GBR)</i>	
A CORPUS-LED STUDY INTO HOW 'DESIGN' IS REPRESENTED IN DESIGN THINKING RESEARCH.....	11
<i>Ghassan A. (GBR)</i>	
TOWARD A COMMON PROCEDURE USING LIKERT AND LIKERT-TYPE SCALES IN SMALL GROUPS COMPARATIVE DESIGN OBSERVATIONS .....	23
<i>Guerra A. L., Gidel T., Vezzetti E. (FRA)</i>	
MAPPING REQUIREMENTS TO PRODUCT PROPERTIES: THE MAPPING MODEL .....	33
<i>Mattmann I., Gramlich S., Kloberdanz H. (DEU)</i>	
THEORY OF SOCIAL SYSTEMS ENGINEERING .....	45
<i>Naumann T. (DEU)</i>	
UNDERSTANDING DESIGN THINKING IN DESIGN STUDIES (2006 - 2015): A SYSTEMATIC MAPPING STUDY .....	57
<i>Paula D., Cormican K. (IRL)</i>	
PROBLEM OR SOLUTION FOCUSED? ILL-DEFINED DESIGN PROBLEMS AND THE INFLUENCE OF DESIGN ABILITY .....	67
<i>Selj J. A. (KOR)</i>	
A REVIEW OF DESIGN SUPPORT PROGRAMMES IN THE EUROPEAN UNION COUNTRIES .....	77
<i>Swiatek P., Whicher A. (GBR)</i>	
WHAT'S THE BENEFIT OF PROBLEM EXPLORATION? .....	89
<i>Vasconcelos L. A., Crilly N., Chen C.-C., Campos F., Kelner J. (GBR)</i>	
SOLUTION PATTERNS – THEIR ROLE IN INNOVATION, PRACTICE AND EDUCATION .....	99
<i>Weber C., Husung S. (DEU)</i>	

#### 2. DESIGN METHODS

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KOPPELSYSTEMS: OBLIGATORY ELEMENTS WITHIN VALIDATION SETUPS.....	109
<i>Albers A., Pinner T., Yan S., Hettel R., Behrendt M. (DEU)</i>	
EMBEDDING MULTIPLE DESIGN STRUCTURES INTO DESIGN DEFINITIONS: A CASE STUDY OF A COLLISION AVOIDANCE ROBOT .....	119
<i>Behera A. K., McKay A., Chau H. H., Robinson M. A. (GBR)</i>	
GEAR PAIR GENERATION WITH THE METHOD OF TRANSPOSED LINES OF ACTION.....	129
<i>Bendefy A. G., Horák P. (HUN)</i>	
INTERDISCIPLINARY INSIGHTS FOUND FOR PRODUCT/SERVICE SYSTEM DESIGN .....	137
<i>Brambila-Macias S. A., Sakao T., Kowalkowski C. (SWE)</i>	

MODEL-BASED SUSTAINABLE PRODUCT DEVELOPMENT .....	145
<i>Buchert T., Pförtner A., Bonvoisin J., Lindow K., Stark R. (DEU)</i>	
A LENS ON FUTURE PRODUCTS: AN EXPANDED NOTION OF PROTOTYPING PRACTICE .....	155
<i>Camere S., Bordegoni M. (ITA)</i>	
COMUNICATION MANAGEMENT MODEL OF ENVIRONMENTAL ISSUES TO ENCOURAGE THE CONSUMPTION OF SUSTAINABLE PRODUCTS IN CHILE.....	165
<i>Cereceda G., Vidal M., Betancourt M. C. (CHL)</i>	
DESIGNING IN A UNIVERSITY AND START-UP CONTEXT: A STUDY OF THE DEPENDENCY BETWEEN DESIGN REQUIREMENTS.....	175
<i>Duran-Novoa R. A., Koh E. C. Y. (SGN)</i>	
INTEGRATED PRODUCT MODELLING THROUGH IFM-CPM/PDD.....	183
<i>Eisenbart B., Khan Y. I., Qureshi A. J. (NLD)</i>	
APPLYING THE ELEMENTAL INTERFACES APPROACH TO KINEMATIC DESIGN .....	193
<i>Freund T., Lotz J., Würtenberger J., Kloberdanz H. (DEU)</i>	
RE-DESIGN THE DESIGN TASK THROUGH TRIZ TOOLS.....	201
<i>Frillici F. S., Rotini F., Fiorineschi L. (ITA)</i>	
DATA MANAGEMENT FOR ADDITIVE MANUFACTURING: SURVEY ON REQUIREMENTS AND CURRENT STATE.....	211
<i>Gräßler I., Taplick P., Pottebaum J., Scholle P., Reiher T. (DEU)</i>	
MATERIAL CRITICALITY METHOD - PRODUCT VULNERABILITY FROM A SUSTAINABLE BUSINESS PERSPECTIVE.....	221
<i>Hallstedt S., Isaksson O., Wallin J., Zetterlund H. (SWE)</i>	
TECHNOLOGY-PULL AND BIOLOGY-PUSH APPROACHES IN BIO-INSPIRED DESIGN - COMPARING RESULTS FROM EMPIRICAL STUDIES ON STUDENT TEAMS.....	231
<i>Hashemi Farzaneh H., Helms M. K., Muenzberg C., Lindemann U. (DEU)</i>	
DRIVERS FOR ADAPTIVE SYSTEM DESIGN USING SMART MATERIALS .....	241
<i>Inkermann D., Vietor T. (DEU)</i>	
RISKS IN PRODUCT DEVELOPMENT: ADVANCEMENTS IN RECENT YEARS.....	251
<i>Juranić J., Marjanović D., Pavković N. (HRV)</i>	
INTEGRATION OF A SYSTEMATIC MATERIAL SELECTION INTO THE DYNAMIC DEVELOPMENT PROCESS OF VEHICLE STRUCTURE PARTS .....	261
<i>Kaiser R., Wicht D., Vielhaber M. (DEU)</i>	
MODEL-BASED SUPPORT FOR PRODUCT-SERVICE SYSTEM PLANNING.....	271
<i>Kammerl D., Winkler S., Schmidt D., Mörtl M. (DEU)</i>	
ORGANIZING END USER REQUIREMENTS FOR PRODUCT-SERVICE ENGINEERING PLATFORM	281
<i>Karvonen I., Rynänen T., Jansson K., Korhonen H. (FIN)</i>	
SIMULATION-BASED DEVELOPMENT OF PARETO-OPTIMIZED TAILORED BLANKS FOR THE USE WITHIN SHEET-BULK METAL FORMING.....	291
<i>Küstner C., Beyer F., Kumor D., Loderer A., Wartzack S., Willner K., Blum H., Rademacher A., Hausotte T. (DEU)</i>	
A MODEL OF DESIGNING AS THE INTERSECTION BETWEEN UNCERTAINTY PERCEPTION, INFORMATION PROCESSING, AND COEVOLUTION .....	301
<i>Lasso S. V., Cash P., Daalhuizen J., Kreye M. (DNK)</i>	

WHICH HYGIENIC PRODUCTS FOR WHICH CONTINENT? DESIGN FOR USAGE AND SUSTAINABILITY.....	311
<i>Leroy Y., Yannou B., Murthy L., Lallmahomed A., Yannou-Le Bris G. (FRA)</i>	
A STEPWISE METHOD TOWARDS PRODUCTS ADAPTED FOR REMANUFACTURING .....	321
<i>Lindkvist L., Sundin E. (SWE)</i>	
BIONIC INSPIRED INFILL STRUCTURES FOR A LIGHT-WEIGHT DESIGN BY USING SLM .....	331
<i>Lippert R. B., Lachmayer R. (DEU)</i>	
UNCERTAINTY IN SIZE RANGE DEVELOPMENT - AN ANALYSIS OF POTENTIAL FOR A NEW SCALING APPROACH.....	341
<i>Lotz J., Freund T., Würtenberger J., Kloberdanz H. (DEU)</i>	
APPLICATION, EVALUATION AND FUTURE RESEARCH POTENTIAL OF THE MATRIX AND GRAPH BASED PRODUCT MODEL .....	351
<i>Luft T., Wartzack S. (DEU)</i>	
INTEGRATED VALUE ENGINEERING - IMPLEMENTATION OF VALUE OPTIMIZATION POTENTIALS .....	361
<i>Maisenbacher S., Fürtbauer D., Behncke F., Lindemann U. (DEU)</i>	
VALIDATION OF THE ECO-TRANSFORMITY METHOD.....	371
<i>Midžić I., Štorga M., Marjanović D. (HRV)</i>	
APPLICATION OF QUALITATIVE SIMULATION FOR EARLY-STAGE SERVICE DESIGN.....	381
<i>Murakami F., Morishita Y., Kimita K., Hosono S., Izukura S., Sakaki H., Numata E., Shimomura Y. (JPN)</i>	
CONCEPTUAL DESIGN FRAMEWORK FOR ICT SERVICE SYSTEM DEVELOPMENT AND DELIVERY .....	391
<i>Numata E., Hosono S., Shimomura Y. (JPN)</i>	
METHOD RECOMMENDATION AND APPLICATION IN AGILE PRODUCT DEVELOPMENT PROCESSES.....	401
<i>Reiß N., Bursac N., Albers A., Walter B., Gladysz B. (DEU)</i>	
DESIGN FOR ADDITIVE MANUFACTURING: A CREATIVE APPROACH .....	411
<i>Rias A.-l., Bouchard C., Segonds F., Abed S. (FRA)</i>	
ESTIMATING THE POTENTIAL OF STATE OF THE ART DESIGN AUTOMATION - TASKS, METHODS, AND BENEFITS.....	421
<i>Rigger E., Münzer C., Shea K. (AUT)</i>	
EXPLORING THE DYNAMIC AND COMPLEX INTEGRATION OF SUSTAINABILITY PERFORMANCE MEASUREMENT INTO PRODUCT DEVELOPMENT.....	433
<i>Rodrigues V. P., Morioka S., Pigozzo D., Carvalho M., McAloone T. (DNK)</i>	
PROCESS-ORIENTED PERFORMANCE INDICATORS FOR MEASURING ECODESIGN MANAGEMENT PRACTICES.....	443
<i>Rodrigues V. P., Pigozzo D., McAloone T. (DNK)</i>	
EVALUATION OF LIFE CYCLE ANALYSIS CASE STUDIES: FINDINGS FOR APPLICATION AND FURTHER DEVELOPMENT.....	453
<i>Rosner A., Hollauer C., Kammerl D., Omer M., Mörtl M. (DEU)</i>	
A METHOD TO EXPLICATE SAFETY FUNCTIONS .....	463
<i>Roth M., Muenzberg C., Lindemann U. (DEU)</i>	

LEAN INNOVATION METHODS: INSIGHTS ABOUT ITS APPLICATION & EVALUATION DURING A STUDENT PROJECT .....	473
<i>Rötzer S., Wilberg J., Lindemann U. (DEU)</i>	
TIME-EFFICIENT ECO-INNOVATION WORKSHOP PROCESS IN COMPLEX SYSTEM INDUSTRIES	483
<i>Saidani M., Cluzel F., Leroy Y., Auclaire A. (FRA)</i>	
CLASSIFICATION OF DESIGN METHODS FROM THE VIEWPOINT OF DESIGN SCIENCE .....	493
<i>Sakae Y., Kato T., Sato K., Matsuoka Y. (JPN)</i>	
MATURITY-MODEL-BASED DESIGN OF STRUCTURAL COMPONENTS.....	503
<i>Sauthoff B., Gembarski P. C., Lachmayer R. (DEU)</i>	
INFLUENCES OF ADDITIVE MANUFACTURING ON DESIGN PROCESSES FOR CUSTOMISED PRODUCTS.....	513
<i>Spallek J., Sankowski O., Krause D. (DEU)</i>	
DEVELOPMENT OF A METHODOLOGY TO IMPLEMENT SET-BASED DESIGN IN A DAY .....	523
<i>Ström M., Raudberget D., Gustafsson G. (SWE)</i>	
POST-PROBABILISTIC UNCERTAINTY QUANTIFICATION: DISCUSSION OF POTENTIAL USE IN PRODUCT DEVELOPMENT RISK MANAGEMENT .....	533
<i>Tegeltija M., Oehmen J., Kozine I., Geraldi J. (DNK)</i>	
APPLICATION OF THE INTERFACE ANALYSIS TEMPLATE FOR DERIVING SYSTEM REQUIREMENTS.....	543
<i>Uddin A., Campean F., Khan M. K. (GBR)</i>	
DESIGN FOR DYNAMIC REQUIREMENT AND DIVERSE USER EXPERIENCE .....	553
<i>Wang Y., Yu S. (CHN)</i>	
A STRUCTURED LOOK AT NEW DESIGN POSSIBILITIES FOR ADDITIVE MANUFACTURING MACHINES.....	561
<i>Whitney T. S., Moultrie J. (GBR)</i>	
UNANSWERED QUESTIONS IN CONCEPTUAL DESIGN TOWARDS CIRCULAR ECONOMY .....	571
<i>Widgren M., Sakao T. (SWE)</i>	
DEVELOPMENT OF A METHODICAL APPROACH TO HANDLE UNCERTAINTY DURING THE PROCESS OF PRODUCT MODELLING .....	579
<i>Württenberger J., Lotz J., Freund T., Kloberdanz H. (DEU)</i>	

## TABLE OF CONTENTS

### VOLUME 2

#### 3. DESIGN SUPPORT TOOLS

---

FROM FMEA AS A PROBLEM SOLVING METHOD TO A DESIGN-ORIENTED PROCESS: TOWARD A DESIGN PERSPECTIVE OF FMEA .....	589
<i>Cabanes B., Hubac S., Le Masson P., Weil B. (FRA)</i>	
AN INITIAL APPROACH OF A STANDARD BASED FRAMEWORK TO MANAGE REALISTIC PRODUCT REPRESENTATIONS.....	601
<i>Ebeling R., Specht R., Eigner M. (DEU)</i>	
A METHOD FOR DESIGNING VISUALISATIONS AS PRODUCT DEVELOPMENT TOOLS.....	611
<i>Gebhardt N., Krause D. (DEU)</i>	
OPERATIONALIZATION OF MANUFACTURING RESTRICTIONS FOR CAD AND KBE-SYSTEMS ..	621
<i>Gembarski P. C., Sauthoff B., Brockmöller T., Lachmayer R. (DEU)</i>	
DEVELOPMENT OF A SUPPORT TOOL TO PREDICT MANUFACTURABILITY OF DEEP-DRAWING PARTS .....	631
<i>Goller D., Schreyer S., Alber-Laukant B., Rieg F., Volk W. (DEU)</i>	
THE COMBINATOR: A COMPUTER-BASED TOOL FOR IDEA GENERATION .....	639
<i>Han J., Shi F., Childs P. R. N. (GBR)</i>	
ASSESSMENT OF SIMULATION READY CAD MODELS IN A SET-BASED CONCURRENT ENGINEERING CONTEXT.....	649
<i>Heikkinen T., Johansson J., Elgh F. (SWE)</i>	
APPLICATION OF VECTORIAL TOLERANCES IN CAD-SYSTEMS DURING THE DESIGN PROCESS .....	659
<i>Husung S., Weber C., Kroschel A., Krone K.-H., Credo T., Müller B., Ackermann L. (DEU)</i>	
VIRTUAL CONTEXTUAL VALIDATION OF TECHNOLOGIES AND METHODS FOR PRODUCT DEVELOPMENT .....	669
<i>Isaksson O., Bertoni A., Levandowski C., Müller J., Wiklund D., Johansson P. B. V. (SWE)</i>	
AN APPROACH TO CAPTURE ENGINEERING KNOWLEDGE THROUGH VISUAL EVALUATION OF MASS GENERATED DESIGN PROPOSALS .....	679
<i>Johansson J., Stolt R., Raudberget D. (SWE)</i>	
INTEGRATING REAL GEOMETRY MODELS INTO PRODUCT SIMULATIONS: AN APPROACH OF A KNOWLEDGE-BASED PROCESS .....	689
<i>Katona S., Koch M., Wartzack S. (DEU)</i>	
FEATURE-BASED APPROACH FOR THE AUTOMATED SETUP OF ACCURATE, DESIGN-ACCOMPANYING FINITE ELEMENT ANALYSES .....	697
<i>Kestel P., Schneyer T., Wartzack S. (DEU)</i>	
AN INTEGRATED PRODUCT INFORMATION MODEL FOR VARIANT DESIGN IN COMMERCIAL VEHICLE DEVELOPMENT .....	707
<i>Kreimeyer M., Baumberger C., Deubzer F., Ziethen D. (DEU)</i>	

AN INTEGRATED APPROACH FOR AN EXTENDED ASSEMBLY-ORIENTED DESIGN OF AUTOMOTIVE WIRING HARNESS USING 3D MASTER MODELS .....	717
<i>Neckenich J., Zielbauer U., Winter R., Vielhaber M. (DEU)</i>	
DEVELOPING A SUPPORT TOOL FOR GLOBAL PRODUCT DEVELOPMENT DECISIONS .....	727
<i>Soendergaard E., Ahmed-Kristensen S. (DNK)</i>	
PROCESS INTEGRATED DESIGN GUIDELINES - SYSTEMATICALLY LINKING MANUFACTURING PROCESSES TO PRODUCT DESIGN.....	739
<i>Wagner C., Roos M., Gramlich S., Kloberdanz H. (DEU)</i>	
THE APPLICATION OF CREATIVITY METHODS IN VIRTUAL TEAMS IN PRODUCT DEVELOPMENT .....	749
<i>Walter B., Rapp S., Albers A. (DEU)</i>	
KEEP IT REAL: ON TOOLS, EMOTION, COGNITION AND INTENTIONALITY IN DESIGN.....	759
<i>Wendrich R. E., Kruiper R. (NLD)</i>	
MORPHIX: AN EVOLUTIONARY WAY TO SUPPORT CONCEPTUAL DESIGN .....	769
<i>Wünsch A., Pilz F., Vajna S. (DEU)</i>	
A TOOL FOR VISUALISATION OF COMPLEX CAD MODELS USING DSM.....	779
<i>Zubić A., Bojčetić N., Žeželj D., Flegarić S. (HRV)</i>	

#### **4. ENGINEERING DESIGN PRACTICE**

---

PGE - PRODUCT GENERATION ENGINEERING - CASE STUDY OF THE DUAL MASS FLYWHEEL.	791
<i>Albers A., Bursac N., Rapp S. (DEU)</i>	
DESIGN OF A MODULE FOR CONTINUOUS PASSIVE MOTION TO BE USED IN EQUIPMENT FOR THE REHABILITATION OF ELBOW AND FOREARM .....	801
<i>Callegaro A. M., Caten C. S. t., Jung C. F., Fogliatto F. S., Tonetto L. M. (BRA)</i>	
DESIGN OF AN INNOVATIVE NATURAL GAS TWO-STROKE ENGINE .....	811
<i>Diwisch P., Dinkel C., Rieg F., Alber-Laukant B. (DEU)</i>	
PROTOTYPES IN ENGINEERING DESIGN: DEFINITIONS AND STRATEGIES.....	821
<i>Jensen L. S., Özkil A. G., Mortensen N. H. (DNK)</i>	
INTRODUCING SELECTIVE LASER MELTING TO MANUFACTURE MACHINE ELEMENTS .....	831
<i>Lachmayer R., Zghair Y. A., Klose C., Nürnberger F. (DEU)</i>	
FINDING THE APPROPRIATE TEST CONTEXT FOR MOBILE APPLICATION PROTOTYPES - A DECISION MODEL BASED ON A CASE STUDY .....	843
<i>Meyer S., Häger F., Uflacker M. (DEU)</i>	
METHODOLOGY FOR ENERGY EFFICIENT DESIGN OF COOLING PLANTS.....	853
<i>Osman K., Pervan D., Tomaš Ž. (HRV)</i>	
HOLISTIC APPROACH TO MATERIALS SELECTION IN PROFESSIONAL APPLIANCES INDUSTRY.....	865
<i>Piselli A., Simonato M., Del Curto B. (ITA)</i>	
DYNAMIC DESIGNING OF DENTAL PROSTHESES .....	875
<i>Solaberrieta E., Minguez R., Brizuela A., Etxaniz O., Barrenetxea L., Iturrate M., De Prado I. (SPA)</i>	
APPLICATION OF DSM TO MECHANICAL CALCULATIONS OF VERTICAL HYDRO GENERATOR	881
<i>Triplat I., Vukšić M., Marjanović D. (HRV)</i>	

EVOLUTION OF ROTOR SPIDER DESIGN FOR VERTICAL HYDRO-GENERATORS.....	889
<i>Vukšić M., Triplat I., Marjanović D. (HRV)</i>	

## **5. DESIGN INNOVATION**

---

AN EXAMPLE OF HYBRIDIZATION BETWEEN THE "DISCOVERING MATRIX" AND THE "9 WINDOWS" TOOLS DURING IDEATION PHASES OF INTERCLUSTERING PROJECTS.....	897
<i>Ambrosino J., Legardeur J. (FRA)</i>	
IMPORTANCE OF PROBLEM SETTING BEFORE DEVELOPING A BUSINESS MODEL CANVAS.....	907
<i>Bekhradi A., Yannou B., Cluzel F. (FRA)</i>	
THINK.MAKE.START. - AN AGILE FRAMEWORK .....	917
<i>Böhmer A., Richter C., Hostettler R., Schneider P., Plum I., Böhler D., Lindemann U., Conradt J., Knoll A. (DEU)</i>	
A CATEGORIZATION OF CUSTOMER CONCERN FOR AN OT FRONT-END OF INNOVATION PROCESS IN IT/OT CONVERGENCE CONTEXT .....	927
<i>Bonnetto E., Yannou B., Yannou-Le Bris G., Boly V., Alvarez J. (FRA)</i>	
STIMULATED IDEATION SESSIONS IN PRODUCT PLANNING: ASSESSING QUANTITATIVE RESULTS OF INDIVIDUALS AND GROUPS .....	937
<i>Borgianni Y., Rotini F. (ITA)</i>	
USING CONTESTS FOR ENGINEERING SYSTEMS DESIGN: A STUDY OF AUCTIONS AND FIXED-PRIZE TOURNAMENTS .....	947
<i>Chaudhari A. M., Thekien J. D., Panchal J. H. (USA)</i>	
ARGUMENTATION AND REASONING IN DESIGN: AN EMPIRICAL ANALYSIS OF THE EFFECTS OF VERBAL REASONING ON IDEA VALUE IN GROUP IDEA GENERATION.....	957
<i>Cramer-Petersen C. L., Ahmed-Kristensen S. (DNK)</i>	
THE CASE OF AN INNOVATION CONTEST – PARTICIPATORY DESIGN IN A SOCIAL CONTEXT..	967
<i>Ericson A., Wenngren J., Holmqvist J., Hammarberg K. (SWE)</i>	
IMPACT OF COLLABORATIVE SPACE ON TEAM WORK IN ENGINEERING DESIGN EDUCATION	975
<i>Fechter M., Kett S. G., Luft T., Wartzack S. (DEU)</i>	
FACTORS INFLUENCING KNOWLEDGE APPLICATION: A REVIEW FROM THE KNOWLEDGE MANAGEMENT FIELD .....	985
<i>Fernandez Miguel R., Carro Saavedra C., Lindemann U. (DEU)</i>	
A FRAMEWORK FOR INNOVATION OPPORTUNITY IDENTIFICATION BASED ON BRAND EXPERIENCE .....	997
<i>Gonzalez I., Val E., Justel D., Iriarte I. (SPA)</i>	
ENHANCING SCENARIO TECHNIQUE BY TIME-VARIANT IMPACTS .....	1005
<i>Gräßler I., Scholle P. (DEU)</i>	
HOW TO IDENTIFY SUITABLE COLLABORATION STRATEGIES FOR OPEN INNOVATION? .....	1015
<i>Guertler M. R., Becerril L., Lindemann U. (DEU)</i>	
HUMOUR PROCESSES FOR CREATIVE ENGINEERING DESIGN.....	1025
<i>Hatcher G., Ion W., MacLachlan R., Wodehouse A., Sheridan M., Simpson B. (GBR)</i>	
APPROACH FOR CREATING A REFINED TASK AS PREPARATION FOR A TARGET-ORIENTED IDEA GENERATION PROCESS .....	1035
<i>Herrmann T., Binz H., Roth D. (DEU)</i>	

ASSESSING DESIGN CREATIVITY: REFINEMENTS TO THE NOVELTY ASSESSMENT METHOD	. 1045
<i>Jagtap S. (SWE)</i>	
INTERVENTION FRAMEWORK TO SUPPORT EMPLOYEE-DRIVEN INNOVATION BETWEEN R&D AND MANUFACTURING DEPARTMENT.....	1055
<i>Jensen C. S., Jensen A. R. V., Broberg O. (DNK)</i>	
MANAGING THE PARADOX OF EARLY PRODUCTION INVOLVEMENT AND INNOVATIVENESS – TO INVOLVE OR EVOLVE, IS THAT THE QUESTION?.....	1065
<i>Karlsson A., Törlind P. (SWE)</i>	
IDEA-SPACE SYSTEM ANALYSIS: THE STUDY OF AN IDEA-CREATION SYSTEM FOR CATALYZING BREAKTHROUGHS .....	1075
<i>Kiura T., Konita N., Shirasaka S. (JPN)</i>	
COLLABORATION IN OPEN ORGANISATIONS .....	1085
<i>Kremer S., Muenzberg C., Lindemann U. (DEU)</i>	
NETWORK INSIGHTS FOR PARTNER SELECTION IN INTER-ORGANISATIONAL NEW PRODUCT DEVELOPMENT PROJECTS.....	1095
<i>Parraguez P., Maier A. (DNK)</i>	
PERFORMANCE ASSESSMENT OF DESIGN DRIVEN NEW ENTREPRENEURIAL VENTURES.....	1105
<i>Petersen S. I. (USA)</i>	
LOOKING FOR FUNDAMENTAL ELEMENTS OF DESIGN THINKING .....	1115
<i>Rosa M., Rozenfeld H. (BRA)</i>	
A DATA MINING APPROACH TO ASSIST DESIGN KNOWLEDGE RETRIEVAL BASED ON KEYWORD ASSOCIATIONS .....	1125
<i>Shi F., Han J., Childs P. R. N. (GBR)</i>	
AN EXTENDED METHODOLOGY FOR THE ASSESSMENT OF TECHNICAL INVENTION EVOLUTION.....	1135
<i>Smojver V., Štorga M., Potočki E. (HRV)</i>	
OVERLAY PATENT NETWORK TO ANALYZE THE DESIGN SPACE OF A TECHNOLOGY DOMAIN: THE CASE OF HYBRID ELECTRICAL VEHICLES .....	1145
<i>Song B., Triulzi G., Alstott J., Yan B., Luo J. (SGN)</i>	
MANAGING THE PROCESS OF PREPARATION FOR PRODUCT DEVELOPMENT - IDEAS ASSESSMENT AND EVALUATION .....	1155
<i>Stevanović M., Marjanović D., Štorga M. (HRV)</i>	
THE ESM APPROACH: 8 MECHANISMS TO EFFICIENTLY SUPPORT ECO-IDEATION.....	1165
<i>Tyl B., Vallet F., Pialot O., Millet D., Le Duigou J., Graves G. (FRA)</i>	
IMPROVING CREATIVITY TRAINING: A STUDY OF DESIGNER SKILLS .....	1175
<i>Valgeirs dottir D., Onarheim B., Li-Ying J. (DNK)</i>	

## TABLE OF CONTENTS

### VOLUME 3

#### 6. DESIGN PROCESSES

---

APPROACH TO TRANSFER METHODS FOR DEVELOPING MODULAR PRODUCT FAMILIES INTO PRACTICE .....	1185
<i>Beckmann G., Gebhardt N., Bahns T., Krause D. (DEU)</i>	
MODELS FOR VALUE-DRIVEN ENGINEERING DESIGN .....	1195
<i>Bertoni M., Bertoni A. (SWE)</i>	
A COMPARISON OF DESIGN PROCESS MODELS FROM ACADEMIC THEORY AND PROFESSIONAL PRACTICE .....	1205
<i>Bobbe T., Krzywinski J., Woelfel C. (DEU)</i>	
SUPPLIER INTEGRATION IN PRODUCT DEVELOPMENT: A SEARCH FOR EXISTING APPORACHES IN OTHER INDUSTRIES.....	1215
<i>Bock J., Wilberg J., Lindemann U. (DEU)</i>	
FUNCTIONAL SPECIFICATION METHODOLOGY FOR AN ARCHITECTURAL MODELER SUPPORTING A MODULAR CONSTRUCTIVE SYSTEM .....	1225
<i>Boulanger C., Rahhal A., Delfosse V., Lorquet C., Leclercq P. (BEL)</i>	
A PRACTICAL APPROACH TO STRUCTURE THE PRODUCT DEVELOPMENT PROCESS USING NETWORK THEORY .....	1235
<i>Chahin A., Hoffmeister J., Paetzold K., Noori N., Vilasis Cardona X. (DEU)</i>	
A SEMIOTIC INTEGRATED PRODUCT DEVELOPMENT FRAMEWORK FOR INTEGRATING BRANDING IN AUTOMOTIVE PRODUCT DESIGN .....	1243
<i>Cini M., Farrugia P. (MLT)</i>	
DESIGN PLATFORM - SETTING THE SCOPE AND INTRODUCING THE CONCEPT .....	1253
<i>Elgh F., André S. E., Johansson J., Stolt R. (SWE)</i>	
X FOR DESIGN, A DESCRIPTIVE FRAMEWORK FOR MODELLING THE COGNITIVE ASPECTS OF DIFFERENT DESIGN ACTIVITIES .....	1265
<i>Filippi S., Barattin D. (ITA)</i>	
TOWARDS A FRAMEWORK OF CHOICES MADE DURING THE LIFECYCLES OF PROCESS MODELS .....	1275
<i>Gericke K., Eckert C. M., Wynn D. (LUX)</i>	
EFFECTS OF MODULAR PRODUCT STRUCTURES ON LIFE PHASES AND ECONOMIC FACTORS	1285
<i>Hackl J., Krause D. (DEU)</i>	
DESIGN MARGINS: IMPACTS ON BUILDING ENERGY PERFORMANCE .....	1295
<i>Jones D. A., Eckert C. M. (GBR)</i>	
DESIGN OF A SELF-OPTIMISING PRODUCTION CONTROL SYSTEM.....	1305
<i>Koechling D., Gausemeier J., Joppen R., Mittag T. (DEU)</i>	
APPROACH OF PARTIALLY AUTOMATED MODELLING OF A PROCESS MODEL .....	1315
<i>Laukemann A., Binz H., Roth D. (DEU)</i>	

MODEL GRANULARITY AND RELATED CONCEPTS.....	1327
<i>Maier J. F., Eckert C. M., Clarkson P. J. (GBR)</i>	
PRODUCT ARCHITECTURE DESIGN AS A KEY TASK WITHIN CONCEPTUAL DESIGN .....	1337
<i>Richter T., Inkermann D., Vietor T. (DEU)</i>	
ADDED VALUE PROCESS FOR COLLABORATIVE EARLY DESIGN USING SIMULATION MODELS IN AERONAUTICS AND AUTOMOTIVE INDUSTRIES.....	1347
<i>Roa Castro L., Stal-Le Cardinal J., Gasser L. (FRA)</i>	
THE IMPACT OF USER-DRIVEN CUSTOMIZATION ON THE DEVELOPMENT PROCESS.....	1357
<i>Roth M., Ulrich C. M., Holle M., Lindemann U. (DEU)</i>	
RECONFIGURABILITY AND MODULARIZATION FOR INTEGRATED MACHINE TOOLS BASED ON FUNCTIONAL ANALYSIS: A SYSTEMATIC APPROACH .....	1367
<i>Schmid A., Katzwinkel T., Schmidt W., Siebrecht J., Löwer M., Feldhusen J. (DEU)</i>	
SET-BASED PRODUCT DEVELOPMENT IN THE MANUFACTURING INDUSTRY.....	1377
<i>Schuh G., Rudolf S., Luedtke B. (DEU)</i>	
DESIGN FOR INDUSTRIE 4.0.....	1387
<i>Schuh G., Rudolf S., Riesener M. (DEU)</i>	
ENHANCEMENT OF COLLABORATION AND COMMUNICATION BETWEEN DESIGN AND SIMULATION DEPARTMENTS BY METHODS OF REQUIREMENTS ENGINEERING.....	1397
<i>Schweigert S., d'Albert H., Lindemann U. (DEU)</i>	
MODULAR FUNCTION DEPLOYMENT ADAPTED.....	1407
<i>Sonego M., Echeveste M., Fogliatto F. S., Tonetto L. M., Caten C. S. t. (BRA)</i>	
SUPPORTING THE DESIGN OF RECONFIGURABLE CELLULAR MANUFACTURING SYSTEMS BY COMPUTATIONAL DESIGN SYNTHESIS.....	1417
<i>Unglert J., Hoekstra S., Jauregui Becker J. (NLD)</i>	
CHALLENGES IN IMPLEMENTING MODULE AND PLATFORM STRATEGIES IN PLANT ENGINEERING COMPANIES .....	1427
<i>Weidmann D., Chucholowski N., Lindemann U. (DEU)</i>	
FRAMEWORK OF A VARIANT MANAGEMENT FOR MODULAR PRODUCT ARCHITECTURES ....	1435
<i>Weiser A.-K., Baasner B., Hosch M., Schlueter M., Ovtcharova J. (DEU)</i>	
ASSESSING IMPACTS OF MODULAR PRODUCT ARCHITECTURES ON THE FIRM: A CASE STUDY .....	1445
<i>Windheim M., Hackl J., Gebhardt N., Krause D. (DEU)</i>	

## **7. DESIGN ORGANISATION AND MANAGEMENT**

---

DIMENSIONS OF PRODUCT DEVELOPMENT SUCCESS.....	1455
<i>Bender B., Marion S. (DEU)</i>	
SYNCHRONIZATION IN PRODUCT DEVELOPMENT PROJECTS: A LITERATURE STUDY ON CHALLENGES AND PRACTICES.....	1465
<i>Chucholowski N., Lehmer K., Rebentisch E., Lindemann U. (DEU)</i>	
PLANNING THE PRODUCT DESIGN PROCESS .....	1475
<i>De Lessio M. P. (USA)</i>	

POSITION PAPER: DESIGNING COMPLEX SYSTEMS TO SUPPORT INTERDISCIPLINARY COGNITIVE WORK.....	1487
<i>Greene M., Papalambros P. Y., McGowan A.-M. (USA)</i>	
SUCCESS FACTORS FOR THE INDUSTRIALIZATION OF PRODUCTION TECHNOLOGIES IN THE PREDEVELOPMENT STAGE - AN ANALYSIS IN THE AUTOMOTIVE INDUSTRY .....	1495
<i>Hilt M. J., Wagner D., Ordung M., Kampker A. (DEU)</i>	
DESIGNING IN A UNIVERSITY AND START-UP CONTEXT: AN ANALYSIS ON ENGINEERING CHANGE PROPAGATION.....	1505
<i>Koh E. C. Y., Duran-Novoa R. A., Weigl J. D., Henz M. (SGN)</i>	
UNDERSTANDING THE RELATIONSHIP BETWEEN DESIGN MARGINS AND TRADE-OFFS.....	1515
<i>Lebjouli S., Eckert C. M., Earl C. (GBR)</i>	
A BUSINESS MODEL CANVAS FOR IDECIDE – HOW TO DESIGN A NEW DECISION MAKING APP?.....	1523
<i>Luft T., Lamé G., Ponn J., Stal-Le Cardinal J., Wartzack S. (DEU)</i>	
AN EXPLORATORY STUDY OF CRISES IN PRODUCT DEVELOPMENT .....	1533
<i>Muenzberg C., Gericke K., Oehmen J., Lindemann U. (DEU)</i>	
COLLABORATIVE DESIGN MANAGEMENT .....	1543
<i>Park J.-E., Choi Y., Holt C. (GBR)</i>	
A KNOWLEDGE FRAMEWORK FOR SAFETY ANALYSIS OF USER-INDUCED CHANGES.....	1553
<i>Roth M., Mayr L., Lindemann U. (DEU)</i>	
ANALYSIS OF SUCCESS FACTORS IN LEAN INNOVATION.....	1563
<i>Schuh G., Rudolf S., Koch J., Riesener M. (DEU)</i>	
A CONCEPT FOR MODELLING AND ANALYSING DESIGN PROCESS CHANGES .....	1573
<i>Shapiro D., Clarkson P. J. (GBR)</i>	
LITERATURE REVIEW OF EXISTING EVALUATION METHODS IN THE CONTEXT OF CHANGEABILITY .....	1585
<i>Stähler M., Weber J., Paetzold K. (DEU)</i>	
DIGITALIZATION CHALLENGES FOR LEAN VISUAL PLANNING IN DISTRIBUTED PRODUCT DEVELOPMENT TEAMS .....	1595
<i>Stenholm D., Bergsjö D., Catic A. (SWE)</i>	
ANALYSIS OF INFORMATION BEHAVIOUR IN PRODUCT DEVELOPMENT CONTEXT .....	1605
<i>Škec S., Štorga M., Antonić I. (HRV)</i>	
GLOBAL PRODUCT DEVELOPMENT: KPI SELECTION SUPPORT.....	1615
<i>Taylor T., Ahmed-Kristensen S. (DNK)</i>	
MULTIDISCIPLINARY INTEGRATION DURING CONCEPTUAL DESIGN PROCESS: A SURVEY ON DESIGN METHODS OF CYBER-PHYSICAL SYSTEMS.....	1625
<i>Zheng C., Le Duigou J., Hehenberger P., Bricogne M., Eynard B. (FRA)</i>	
<b>8. SYSTEMS ENGINEERING AND DESIGN</b>	
FOSTERING URBAN-CENTERED INNOVATION.....	1635
<i>Bekhradi A., Yannou B., Cluzel F., Chabbert F. (FRA)</i>	

AN INTERDISCIPLINARY MODEL-BASED DESIGN APPROACH FOR DEVELOPING CYBERTRONIC SYSTEMS.....	1647
<i>Eigner M., Dickopf T., Huwig C. (DEU)</i>	
SYSTEMATIC FOR FUNCTION-ORIENTED DEVELOPMENT OF SPATIAL CIRCUIT CARRIERS AND PROTOTYPES .....	1657
<i>Jürgenhake C., Dumitrescu R. (DEU)</i>	
TOWARDS IMPLEMENTING SYSTEMS ENGINEERING AS PART OF COMMERCIAL VEHICLE DESIGN .....	1669
<i>Karrer-Müller E., Fuss T., Schiffer M., Kreimeyer M., Schuh G. (DEU)</i>	
MANAGEMENT OF VEHICLE ARCHITECTURE PARAMETERS.....	1679
<i>Toepfer F., Naumann T. (DEU)</i>	

## TABLE OF CONTENTS

### VOLUME 4

#### **9. HUMAN BEHAVIOUR AND DESIGN**

---

THE INFLUENCE OF USER CHARACTERISTICS IN NEGATIVE USE EXPERIENCE AND THEIR IMPLICATIONS .....	1689
<i>Ahn Y. K., Kim C. J. (KOR)</i>	
INTEGRATION OF THE WELL-BEING IN THE EARLY PHASES OF THE AUTOMOTIVE DESIGN PROCESS: FIRST APPROACH AND CONTRIBUTION OF PHYSIOLOGICAL MEASURES.....	1697
<i>Bertin M., Blunzter J.-B., Roger M., Sagot J.-C., Del Fabbro L. (FRA)</i>	
COMPUTER AIDED DESIGN USER INTERACTION AS A SENSOR FOR MONITORING ENGINEERS AND THE ENGINEERING DESIGN PROCESS.....	1707
<i>Gopsill J., Snider C., Shi L., Hicks B. (GBR)</i>	
CONSIDERING EMOTIONAL IMPRESSIONS IN PRODUCT DESIGN: QUALITY OF LIFE THEORY AND ITS IMPACT ON DESIGN STRATEGY .....	1719
<i>Kett S. G., Wartzack S. (DEU)</i>	
DESIGNER'S IDENTITY: PERSONAL ATTRIBUTES AND DESIGN SKILLS .....	1729
<i>Kunrath K., Cash P., Li-Ying J. (DNK)</i>	
SHARING THE DESIGN INTENT BETWEEN INDUSTRIAL DESIGNERS AND ENGINEERING DESIGNERS.....	1741
<i>Laursen E. S., Møller L. (DNK)</i>	
INTRODUCING THE WAYFARING APPROACH FOR THE DEVELOPMENT OF HUMAN EXPERIMENTS IN INTERACTION DESIGN AND ENGINEERING DESIGN SCIENCE .....	1751
<i>Leikanger K. K., Balters S., Steinert M. (NOR)</i>	
METHOD TO CREATE MARKET-SPECIFIC CUSTOMER PROFILES FOR ENHANCING POSITIVE USER EXPERIENCES IN CARS.....	1763
<i>Michailidou I., Franzen F., Lindemann U. (DEU)</i>	
MANAGING USER EXPERIENCE DESIGN: THE ROLE OF A "STORYKEEPER" .....	1773
<i>Michailidou I., Lindemann U. (DEU)</i>	
EXPLORING THE ACTUAL PRACTICE OF USER EXPERIENCE AND SCENARIO-BASED METHODS .....	1783
<i>Michailidou I., Lindemann U. (DEU)</i>	
WHAT CAN ENGINEERING DESIGN LEARN FROM GAME DESIGN AND ITS PRACTICE? .....	1795
<i>Mombeshora M., Dekoninck E. (GBR)</i>	
USER-CENTRED APPROACH FOR PRODUCT-SERVICE DESIGN USING VIRTUAL MOCK-UPS.....	1805
<i>Peruzzini M., Marilungo E. (ITA)</i>	
APPLYING SIMPLE UX IDEATION TECHNIQUES TO IMPROVE THE USABILITY, DESIGN, AND ADOPTION OF ASSISTIVE TECHNOLOGY .....	1815
<i>Wilkinson C. R. (GBR)</i>	

## **10. SOCIOTECHNICAL ISSUES IN DESIGN**

---

THE PROCESS OF PARTICIPATORY ERGONOMICS SIMULATION IN HOSPITAL WORK SYSTEM DESIGN .....	1825
<i>Andersen S. N. (DNK)</i>	
A SIMULATION-BASED ANALYSIS ON THE INTEGRATION OF PROGRAM MANAGEMENT AND SYSTEMS ENGINEERING .....	1835
<i>Becerril L., Rebentisch E., Chucholowski N., Conforto E., Lindemann U. (DEU)</i>	
USING SECONDARY VIDEO MATERIAL FOR USER OBSERVATION IN THE NEEDFINDING PROCESS FOR NEW PRODUCT DEVELOPMENT AND DESIGN .....	1845
<i>Blindheim J., Wulvik A., Steinert M. (NOR)</i>	
KANO'S METHOD IN PRODUCT DESIGN: A STUDY OF DYNAMIC MODELS' RELIABILITY.....	1855
<i>Borgianni Y. (ITA)</i>	
GENERATIVE PARTICIPATORY DESIGN FOR INTERACTIVE MEDICAL DEVICES.....	1865
<i>Hare J., Thomas G., Andrews C., Eggbeer D. (GBR)</i>	
AN EMPIRICAL INVESTIGATION ON MODELLING OF SOCIO-TECHNICAL UNCERTAINTY LEVELS TO SUPPORT DESIGN PROCESS PLANNING .....	1875
<i>Hassannezhad M., Montagna F. (GBR)</i>	
CAN DIAGRAMS HELP IMPROVE HEALTHCARE SYSTEMS DESIGN AND CARE DELIVERY? ....	1885
<i>Komashie A., Clarkson P. J. (GBR)</i>	
ORGANIZATIONAL REDESIGN: INSIGHTS FROM ETHNOGRAPHIC STUDY BEFORE SIMULATION.....	1895
<i>Lamé G., Stal-Le Cardinal J., Jouini O. (FRA)</i>	
A KNOWLEDGE MANAGEMENT FRAMEWORK FOR IDENTIFYING INNOVATION POTENTIALS FROM USE PHASE INFORMATION .....	1905
<i>Omer M., Venkataraman S., Wilberg J., Hollauer C. (DEU)</i>	
AN APPROACH TO INCLUDE THE LIFE SITUATION OF ELDERLY PEOPLE IN PRODUCT DEVELOPMENT .....	1915
<i>Paetzold K., Walter J., Pelizäus-Hoffmeister H. (DEU)</i>	
AGENT-BASED SIMULATION FRAMEWORK TO SUPPORT MANAGEMENT OF TEAMS PERFORMING DEVELOPMENT ACTIVITIES .....	1925
<i>Perišić M. M., Martinec T., Štorga M., Kanduč T. (HRV)</i>	
DETERMINING WORK FOCUS, COMMON LANGUAGE, AND ISSUES IN ENGINEERING PROJECTS THROUGH TOPIC PERSISTANCE.....	1937
<i>Snider C., Skec S., Gopsill J., Hicks B. (GBR)</i>	
NEEDS ELICITATION FOR NOVEL PERVERSIVE HEALTHCARE TECHNOLOGY .....	1947
<i>Thorpe J. R., Forchhammer B. H., Maier A. (DNK)</i>	
WINNING FORMULAS FOR METAPHOR DESIGN: A CASE STUDY OF DESIGN COMPETITIONS .	1957
<i>Wang H.-H. (TWN)</i>	
A NETWORK APPROACH FOR UNDERSTANDING AND ANALYZING PRODUCT CO-CONSIDERATION RELATIONS IN ENGINEERING DESIGN .....	1965
<i>Wang M., Huang Y., Contractor N., Fu Y., Chen W. (USA)</i>	
A METHOD TO IMPROVE DESIGN PROCESS RESOURCE MANAGEMENT.....	1977
<i>Xin Chen H. L., Moullec M.-L., Clarkson P. J. (GBR)</i>	

## **11. DESIGN INFORMATION AND KNOWLEDGE**

---

TOWARDS A PLATFORM APPROACH SUPPORTING THE INTERFACE BETWEEN TECHNOLOGY-AND PRODUCT DEVELOPMENT .....	1987
<i>André S. E. (SWE)</i>	
A KNOWLEDGE-BASED SYSTEM FOR NUMERICAL DESIGN OF EXPERIMENTS .....	1997
<i>Blondet G., Le Duigou J., Boudaoud N. (FRA)</i>	
DESIGN CATALOGUES: KNOWLEDGE REPOSITORIES FOR KNOWLEDGE-BASED-ENGINEERING APPLICATIONS .....	2007
<i>Gembarski P. C., Bibani M., Lachmayer R. (DEU)</i>	
OPTIMIZING THE PROCESS OF PRODUCT DEVELOPMENT BY COLLABORATING & THINKING VISUALLY- CO-CREATION WITHIN HOWDEN .....	2017
<i>Grant D. A., Russell G., Wagner B., Fain N. (GBR)</i>	
TOWARDS KNOWLEDGE BASED ENGINEERING FOR MULTI-MATERIAL-DESIGN.....	2027
<i>Kleemann S., Türck E., Vietor T. (DEU)</i>	

## **12. DESIGN EDUCATION**

---

PROJECT-BASED LEARNING: A NEW WAY TO TEACH ERGONOMICS .....	2037
<i>Astolfi B. M., Costa D. G., Campese C., Costa J. M. H. (BRA)</i>	
TEACHING DESIGN METHODS WITH THE INTERACTIVE 'METHODOS' PORTAL .....	2049
<i>Bavendiek A.-K., Inkermann D., Vietor T. (DEU)</i>	
DISTRIBUTED IPD PROJECT-BASED LEARNING - A PHD SUMMER SCHOOL STUDENT'S PERSPECTIVE.....	2059
<i>EL Badawi EL Najjar R., Friedl M., Martinec T., Ouamer Ali M.-I., Partie M., Borg J., Vajna S. (AUT)</i>	
THE INFLUENCE OF PRODUCT COMPLEXITY ON TEAM PERFORMANCE WITHIN NPD.....	2069
<i>Fain N., Žavbi R., Vukašinović N. (GBR)</i>	
INDIVIDUAL DISPOSITIONS AND THE ADOPTION OF SURFACE LEARNING IN DESIGN.....	2081
<i>Hamat B., Badke-Schaub P., Schoormans J. (NLD)</i>	
CROSS-CULTURAL DESIGN (CCD) LEARNING REFLECTIVE TOOL BASED ON UK AND KOREA'S COLLABORATIVE DESIGN PROJECTS .....	2091
<i>Lee D. Y., Ha J. Y., Fairfax D. (GBR)</i>	
PROTOTYPE OF A NEW LEARNING FACTORY - AN EDUCATIONAL APPROACH TO INTEGRATE PRODUCTION AND PRODUCT DEVELOPMENT .....	2101
<i>Song Y.-W., Herzog M., Kreimeier D., Bender B. (DEU)</i>	
DESIGN THINKING AND THE HYPE CYCLE IN MANAGEMENT EDUCATION AND IN ENGINEERING EDUCATION .....	2111
<i>Spee J., Basaiawmoit R. V. (USA)</i>	
INTRODUCTION OF METHODOLOGY FOR DISTRIBUTED COLLABORATIVE INDUSTRY-ACADEMIA PROJECT BASED LEARNING .....	2125
<i>Vidovics † B., Vukašinović N., Pavković N., Kovačević A. (HRV)</i>	

## **13. INDUSTRIAL DESIGN**

---

CREATING IMPACT FROM INDUSTRIAL DESIGN RESEARCH: CASE STUDIES FOR APP, EXHIBITION, VIDEO, WEBSITE, CARDS AND AWARD .....	2137
<i>Evans M. (GBR)</i>	
DIFFICULTIES IN TRANSFORMABLE DESIGN AND ITS CAUSES .....	2147
<i>Lee H., Tufail M., Kim K. (KOR)</i>	
A QUANTITATIVE MODEL FOR IDENTIFYING REGIONS OF DESIGN VISUAL ATTRACTION AND APPLICATION TO AUTOMOBILE STYLING .....	2157
<i>Pan Y., Burnap A., Liu Y., Lee H., Gonzalez R., Papalambros P. Y. (USA)</i>	
FROM PROTOTYPE TO PRODUCTION: USING PLASTIC 3D PRINTED PARTS IN FURNITURE .....	2167
<i>Pandolfo B. (AUS)</i>	
IMPROVING HAJJ PILGRIMS HEALTH CONDITIONS THROUGH PRODUCT DESIGN .....	2175
<i>Razi M. (GBR)</i>	
A PRELIMINARY STUDY OF TRENDS IN PERCEIVED QUALITY DESIGN ATTRIBUTES IN THE AUTOMOTIVE LUXURY MARKET SEGMENT .....	2189
<i>Styliidis K., Burnap A., Rossi M., Wickman C., Söderberg R., Papalambros P. Y. (SWE)</i>	
DEVELOPMENT OF THE NEW PROTECTION PROCESSES AND SERVICES FOR SECURE PRINTING .....	2197
<i>Žiljak Vujić J., Crnjac S., Mitrović O. (HRV)</i>	

## **14. KEYNOTE**

---

DESIGN AND TECHNOSCIENCE – WHAT'S UP WITH RESPONSIBILITY?.....	2205
<i>Kornwachs K. (GER)</i>	



## PREFACE

In June 1981, the first "Simposium on Design - Scientific and Professional Meeting" took place at the University of Zagreb, Faculty of Mechanical Engineering and Naval Architecture. The proceedings of this event encompassed four themes: "The Science of Design, Computer Aided Design, Ergonomic and Design, and The Situation in the Field of Designing in our Science and Industry". Motivation for the Meeting was emphasised in the Foreword:

"The development of new technologies in many fields of human activities imposed the necessity of scientific approach to the process of designing. This need emerged, demanding qualitative changes in approach, development and application of the methods of design."

"Based on modern scientific achievements and modern information processing, these methods create a new technical scientific field "The Science of Design". Comparatively fresh, this scientific discipline analyses the process of design development with the aim of discovering the rules governing design processes..."

Looking at the proceedings of this event it is hard to imagine that this conference would continue to gather interest for the next 35 years. After three events in Zagreb, the conference first took place in Dubrovnik, in the year 1998 and since y. 2000 Cavtat has provided an inspiring environment for discussion amongst researchers and practitioners that think and practice design in all its multifaceted manifestations. The founding of Design Society and the effort of the DESIGN programme provide a synergy that has brought DESIGN conference to its 14<sup>th</sup> event, celebrating its 35th anniversary.

The design research presented at the 14th DESIGN conference reflects predominantly the interests of design researchers and practitioners connected with academia, epitomising the current situation in design research, readdressing questions that have been discussed through the last four decades or more. Although the answers offered are in some cases similar to previously published research there is clear development, reminding us that science provides only partial truths.

The truly thought provoking essence of design lies in its complexity that cannot be modelled or formally designated within autonomous theory or models. Noticable variation in approaches, proposed design theories and models recently became a research theme tending to consolidation and convergence. Since the first "Meeting" the progress has been made: for design and for design research, or to be more precise, in research about design and implementation in design practice. These advances have led to methodological stability and autonomy of the design discipline.

Discussion and further development of all aspects of design knowledge from cognition and philosophy, to methods and tools, from research theory to practice is the reason for gathering at DESIGN conferences. In the papers selected for the DESIGN 2016 conference the authors strive to improve design projects and processes that will require new methods, processes, competencies, information and communication technologies. How this influences engineering design methodologies and tools in practice and what impact it will have on design practice should become focal points of this discussion.

The programme of DESIGN 2016 is the result of a joint effort of Programme chairs and Organising team who have been working together for a long time. We would like to express our gratitude to all the authors who have submitted their papers and all the reviewers who have helped to select papers, ensuring an outstanding conference experience for all. A special thank you goes to all the authors and Session Chairs, who will make this experience possible.

Dorian Marjanović  
Steve Culley  
Udo Lindemann  
Tim McAloone  
Christian Weber

## INDEX

### *A*

- Abed S.** 411  
**Ackermann L.** 659  
**Ahmed-Kristensen S.** 727, 957, 1615  
**Ahn Y. K.** 1689  
**Alber-Laukant B.** 631, 811  
**Albers A.** 109, 401, 749, 791  
**Alstott J.** 1145  
**Alvarez J.** 927  
**Ambrosino J.** 897  
**Andersen S. N.** 1825  
**André S. E.** 1253, 1987  
**Andrews C.** 1865  
**Antonić I.** 1605  
**Astolfi B. M.** 2037  
**Auclaire A.** 483

### *B*

- Baasner B.** 1435  
**Badke-Schaub P.** 2081  
**Bahns T.** 1185  
**Balters S.** 1751  
**Barattin D.** 1265  
**Barrenetxea L.** 875  
**Basaiawmoit R. V.** 2111  
**Baumberger C.** 707  
**Bavendiek A.-K.** 2049  
**Becerril L.** 1015, 1835  
**Beckmann G.** 1185  
**Behera A. K.** 119  
**Behncke F.** 361  
**Behrendt M.** 109  
**Bekhradi A.** 907, 1635  
**Bendefy A. G.** 129  
**Bender B.** 1455, 2101  
**Bergsjö D.** 1595  
**Bertin M.** 1697  
**Bertoni A.** 669, 1195  
**Bertoni M.** 1195  
**Betancourt M. C.** 165  
**Beyer F.** 291  
**Bibani M.** 2007  
**Binz H.** 1035, 1315  
**Blindheim J.** 1845  
**Blondet G.** 1997  
**Blum H.** 291  
**Bluntzer J.-B.** 1697  
**Boa D. R.** 1

- Bobbe T.** 1205  
**Bock J.** 1215  
**Bojčetić N.** 779  
**Boly V.** 927  
**Bonnetto E.** 927  
**Bonvoisin J.** 145  
**Bordegoni M.** 155  
**Borg J.** 2059  
**Borgianni Y.** 937, 1855  
**Bouchard C.** 411  
**Boudaoud N.** 1997  
**Boulanger C.** 1225  
**Böhler D.** 917  
**Böhmer A.** 917  
**Brambila-Macias S. A.** 137  
**Bricogne M.** 1625  
**Brizuela A.** 875  
**Broberg O.** 1055  
**Brockmöller T.** 621  
**Buchert T.** 145  
**Burnap A.** 2157, 2189  
**Bursac N.** 401, 791

### *C*

- Cabanes B.** 589  
**Callegaro A. M.** 801  
**Camere S.** 155  
**Campean F.** 543  
**Campese C.** 2037  
**Campos F.** 89  
**Carro Saavedra C.** 985  
**Carvalho M.** 433  
**Cash P.** 301, 1729  
**Catic A.** 1595  
**Cereceda G.** 165  
**Chabbert F.** 1635  
**Chahin A.** 1235  
**Chau H. H.** 119  
**Chaudhari A. M.** 947  
**Chen C.-C.** 89  
**Chen W.** 1965  
**Childs P. R. N.** 639, 1125  
**Choi Y.** 1543  
**Chucholowski N.** 1427, 1465, 1835  
**Cini M.** 1243  
**Clarkson P. J.** 1327, 1573, 1885, 1977  
**Cluzel F.** 483, 907, 1635  
**Conforto E.** 1835

**Conradt J.** 917  
**Contractor N.** 1965  
**Cormican K.** 57  
**Costa D. G.** 2037  
**Costa J. M. H.** 2037  
**Cramer-Petersen C. L.** 957  
**Credo T.** 659  
**Crilly N.** 89  
**Crnjac S.** 2197

---

**D**

**d'Albert H.** 1397  
**Daalhuizen J.** 301  
**De Lessio M. P.** 1475  
**De Prado I.** 875  
**Dekoninck E.** 1795  
**Del Curto B.** 865  
**Del Fabbro L.** 1697  
**Delfosse V.** 1225  
**Deubzer F.** 707  
**Dickopf T.** 1647  
**Dinkel C.** 811  
**Diwisch P.** 811  
**Dumitrescu R.** 1657  
**Duran-Novoa R. A.** 175, 1505

---

**E**

**Earl C.** 1515  
**Ebeling R.** 601  
**Echeveste M.** 1407  
**Eckert C. M.** 1275, 1295, 1327, 1515  
**Eggbeer D.** 1865  
**Eigner M.** 601, 1647  
**Eisenbart B.** 183  
**EL Badawi EL Najjar R.** 2059  
**Elgh F.** 649, 1253  
**Ericsen A.** 967  
**Etxaniz O.** 875  
**Evans M.** 2137  
**Eynard B.** 1625

---

**F**

**Fain N.** 2017, 2069  
**Fairfax D.** 2091  
**Farrugia P.** 1243  
**Fechter M.** 975  
**Feldhusen J.** 1367  
**Fernandez Miguel R.** 985  
**Filippi S.** 1265  
**Fiorineschi L.** 201  
**Flegarić S.** 779

**Fogliatto F. S.** 801, 1407  
**Forchhammer B. H.** 1947  
**Franzen F.** 1763  
**Freund T.** 193, 341, 579  
**Friedl M.** 2059  
**Frillici F. S.** 201  
**Fu Y.** 1965  
**Fuss T.** 1669  
**Fürtbauer D.** 361

---

**G**

**Gasser L.** 1347  
**Gausemeier J.** 1305  
**Gebhardt N.** 611, 1185, 1445  
**Gembarski P. C.** 503, 621, 2007  
**Geraldi J.** 533  
**Gericke K.** 1275, 1533  
**Ghassan A.** 11  
**Gidel T.** 23  
**Gladysz B.** 401  
**Goller D.** 631  
**Gonzalez I.** 997  
**Gonzalez R.** 2157  
**Gopsill J.** 1707, 1937  
**Gramlich S.** 33, 739  
**Grant D. A.** 2017  
**Graves G.** 1165  
**Gräßler I.** 211, 1005  
**Greene M.** 1487  
**Guerra A. L.** 23  
**Guertler M. R.** 1015  
**Gustafsson G.** 523

---

**H**

**Ha J. Y.** 2091  
**Hackl J.** 1285, 1445  
**Hallstedt S.** 221  
**Hamat B.** 2081  
**Hammarberg K.** 967  
**Han J.** 639, 1125  
**Hare J.** 1865  
**Hashemi Farzaneh H.** 231  
**Hassannezhad M.** 1875  
**Hatcher G.** 1025  
**Hausotte T.** 291  
**Häger F.** 843  
**Hehenberger P.** 1625  
**Heikkinen T.** 649  
**Helms M. K.** 231  
**Henz M.** 1505  
**Herrmann T.** 1035

**Herzog M.** 2101  
**Hettel R.** 109  
**Hicks B.** 1, 1707, 1937  
**Hilt M. J.** 1495  
**Hoekstra S.** 1417  
**Hoffmeister J.** 1235  
**Hollauer C.** 453, 1905  
**Holle M.** 1357  
**Holmqvist J.** 967  
**Holt C.** 1543  
**Horák P.** 129  
**Hosch M.** 1435  
**Hosono S.** 381, 391  
**Hostettler R.** 917  
**Huang Y.** 1965  
**Hubac S.** 589  
**Husung S.** 99, 659  
**Huwig C.** 1647

## ***I***

**Inkermann D.** 241, 1337, 2049  
**Ion W.** 1025  
**Iriarte I.** 997  
**Isaksson O.** 221, 669  
**Iturrate M.** 875  
**Izukura S.** 381

## ***J***

**Jagtap S.** 1045  
**Jansson K.** 281  
**Jauregui Becker J.** 1417  
**Jensen A. R. V.** 1055  
**Jensen C. S.** 1055  
**Jensen L. S.** 821  
**Johansson J.** 649, 679, 1253  
**Johansson P. B. V.** 669  
**Jones D. A.** 1295  
**Joppen R.** 1305  
**Jouini O.** 1895  
**Jung C. F.** 801  
**Juranić J.** 251  
**Justel D.** 997  
**Jürgenhake C.** 1657

## ***K***

**Kaiser R.** 261  
**Kammerl D.** 271, 453  
**Kampker A.** 1495  
**Kanduč T.** 1925  
**Karlsson A.** 1065  
**Karrer-Müller E.** 1669

**Karvonen I.** 281  
**Kato T.** 493  
**Katona S.** 689  
**Katzwinkel T.** 1367  
**Kelner J.** 89  
**Kestel P.** 697  
**Kett S. G.** 975, 1719  
**Khan M. K.** 543  
**Khan Y. I.** 183  
**Kim C. J.** 1689  
**Kim K.** 2147  
**Kimita K.** 381  
**Kiura T.** 1075  
**Kleemann S.** 2027  
**Kloberdanz H.** 33, 193, 341, 579, 739  
**Klose C.** 831  
**Knoll A.** 917  
**Koch J.** 1563  
**Koch M.** 689  
**Koechling D.** 1305  
**Koh E. C. Y.** 175, 1505  
**Komashie A.** 1885  
**Konita N.** 1075  
**Korhonen H.** 281  
**Kornwachs K.** 2205  
**Kovačević A.** 2125  
**Kowalkowski C.** 137  
**Kozine I.** 533  
**Krause D.** 513, 611, 1185, 1285, 1445  
**Kreimeier D.** 2101  
**Kreimeyer M.** 707, 1669  
**Kremer S.** 1085  
**Kreye M.** 301  
**Krone K.-H.** 659  
**Kroschel A.** 659  
**Kruiper R.** 759  
**Krzywinski J.** 1205  
**Kumor D.** 291  
**Kunrath K.** 1729  
**Küstner C.** 291

## ***L***

**Lachmayer R.** 331, 503, 621, 831, 2007  
**Lallmahomed A.** 311  
**Lamé G.** 1523, 1895  
**Lasso S. V.** 301  
**Laukemann A.** 1315  
**Laursen E. S.** 1741  
**Le Duigou J.** 1165, 1625, 1997  
**Le Masson P.** 589

**Lebjioui S.** 1515  
**Leclercq P.** 1225  
**Lee D. Y.** 2091  
**Lee H.** 2147, 2157  
**Legardeur J.** 897  
**Lehmer K.** 1465  
**Leikanger K. K.** 1751  
**Leroy Y.** 311, 483  
**Levandowski C.** 669  
**Lindemann U.** 231, 361, 463, 473, 917, 985, 1015, 1085, 1215, 1357, 1397, 1427, 1465, 1533, 1553, 1763, 1773, 1783, 1835  
**Lindkvist L.** 321  
**Lindow K.** 145  
**Lippert R. B.** 331  
**Liu Y.** 2157  
**Li-Ying J.** 1175, 1729  
**Loderer A.** 291  
**Lorquet C.** 1225  
**Lotz J.** 193, 341, 579  
**Löwer M.** 1367  
**Luedtke B.** 1377  
**Luft T.** 351, 975, 1523  
**Luo J.** 1145

**M**

**MacLachlan R.** 1025  
**Maier A.** 1095, 1947  
**Maier J. F.** 1327  
**Maisenbacher S.** 361  
**Marilungo E.** 1805  
**Marion S.** 1455  
**Marjanović D.** 251, 371, 881, 889, 1155  
**Martinec T.** 1925, 2059  
**Matsuoka Y.** 493  
**Mattmann I.** 33  
**Mayr L.** 1553  
**McAloone T.** 433, 443  
**McGowan A.-M.** 1487  
**McKay A.** 119  
**Meyer S.** 843  
**Michailidou I.** 1763, 1773, 1783  
**Midžić I.** 371  
**Millet D.** 1165  
**Minguez R.** 875  
**Mitrović O.** 2197  
**Mittag T.** 1305  
**Mombeshora M.** 1795  
**Montagna F.** 1875  
**Morioka S.** 433

**Morishita Y.** 381  
**Mortensen N. H.** 821  
**Moullec M.-L.** 1977  
**Moultrie J.** 561  
**Mörzl M.** 271, 453  
**Møller L.** 1741  
**Muenzberg C.** 231, 463, 1085, 1533  
**Murakami F.** 381  
**Murthy L.** 311  
**Müller B.** 659  
**Müller J.** 669  
**Münzer C.** 421

**N**

**Naumann T.** 45, 1679  
**Neckenich J.** 717  
**Noori N.** 1235  
**Numata E.** 381, 391  
**Nürnberg F.** 831

**O**

**Oehmen J.** 533, 1533  
**Omer M.** 453, 1905  
**Onarheim B.** 1175  
**Ordung M.** 1495  
**Osman K.** 853  
**Ouamer Ali M.-I.** 2059  
**Ovtcharova J.** 1435

**Ö**

**Özkil A. G.** 821

**P**

**Paetzold K.** 1235, 1585, 1915  
**Pan Y.** 2157  
**Panchal J. H.** 947  
**Pandolfo B.** 2167  
**Papalambros P. Y.** 1487, 2157, 2189  
**Park J.-E.** 1543  
**Parraguez P.** 1095  
**Partie M.** 2059  
**Paula D.** 57  
**Pavković N.** 251, 2125  
**Pelizäus-Hoffmeister H.** 1915  
**Perišić M. M.** 1925  
**Peruzzini M.** 1805  
**Pervan D.** 853  
**Petersen S. I.** 1105  
**Pförtner A.** 145  
**Pialot O.** 1165  
**Pigosso D.** 433, 443  
**Pilz F.** 769

Pinner T. 109  
Piselli A. 865  
Plum I. 917  
Ponn J. 1523  
Potočki E. 1135  
Pottebaum J. 211

## *Q*

---

Qureshi A. J. 183

## *R*

---

Rademacher A. 291  
Rahhal A. 1225  
Rapp S. 749, 791  
Raudberget D. 523, 679  
Razi M. 2175  
Rebentisch E. 1465, 1835  
Reiher T. 211  
Reiß N. 401  
Rias A.-l. 411  
Richter C. 917  
Richter T. 1337  
Rieg F. 631, 811  
Riesener M. 1387, 1563  
Rigger E. 421  
Roa Castro L. 1347  
Robinson M. A. 119  
Rodrigues V. P. 433, 443  
Roger M. 1697  
Roos M. 739  
Rosa M. 1115  
Rosner A. 453  
Rossi M. 2189  
Roth D. 1035, 1315  
Roth M. 463, 1357, 1553  
Rotini F. 201, 937  
Rozenfeld H. 1115  
Rötzer S. 473  
Rudolf S. 1377, 1387, 1563  
Russell G. 2017  
Ryynänen T. 281

## *S*

---

Sagot J.-C. 1697  
Saidani M. 483  
Sakae Y. 493  
Sakaki H. 381  
Sakao T. 137, 571  
Sankowski O. 513  
Sato K. 493  
Sauthoff B. 503, 621

Schiffer M. 1669  
Schlueter M. 1435  
Schmid A. 1367  
Schmidt D. 271  
Schmidt W. 1367  
Schneider P. 917  
Schneyer T. 697  
Scholle P. 211, 1005  
Schoormans J. 2081  
Schreyer S. 631  
Schuh G. 1377, 1387, 1563, 1669  
Schweigert S. 1397  
Segonds F. 411  
Self J. A. 67  
Shapiro D. 1573  
Shea K. 421  
Sheridan M. 1025  
Shi F. 639, 1125  
Shi L. 1707  
Shimomura Y. 381, 391  
Shirasaka S. 1075  
Siebrecht J. 1367  
Simonato M. 865  
Simpson B. 1025  
Smoyer V. 1135  
Snider C. 1707, 1937  
Soendergaard E. 727  
Solaberrieta E. 875  
Sonego M. 1407  
Song B. 1145  
Song Y.-W. 2101  
Söderberg R. 2189  
Spallek J. 513  
Specht R. 601  
Spee J. 2111  
Stal-Le Cardinal J. 1347, 1523, 1895  
Stark R. 145  
Stäbler M. 1585  
Steinert M. 1751, 1845  
Stenholm D. 1595  
Stevanović M. 1155  
Stolt R. 679, 1253  
Ström M. 523  
Styliidis K. 2189  
Sundin E. 321  
Swiatek P. 77

## *Š*

---

Škec S. 1605, 1937  
Štorga M. 371, 1135, 1155, 1605, 1925

**T**

- Taplick P. 211  
Taylor T. 1615  
Tegeltija M. 533  
ten Caten C. S. 801, 1407  
Thekinen J. D. 947  
Thomas G. 1865  
Thorpe J. R. 1947  
Toepfer F. 1679  
Tomaš Ž. 853  
Tonetto L. M. 801, 1407  
Törlind P. 1065  
Triplat I. 881, 889  
Triulzi G. 1145  
Tufail M. 2147  
Türck E. 2027  
Tyl B. 1165

**U**

- Uddin A. 543  
Uflacker M. 843  
Ulrich C. M. 1357  
Unglert J. 1417

**V**

- Vajna S. 769, 2059  
Val E. 997  
Valgeirsdottir D. 1175  
Vallet F. 1165  
Vasconcelos L. A. 89  
Venkataraman S. 1905  
Vezzetti E. 23  
Vidal M. 165  
Vidovics † B. 2125  
Vielhaber M. 261, 717  
Vietor T. 241, 1337, 2027, 2049  
Vilasis Cardona X. 1235  
Volk W. 631  
Vukašinović N. 2069, 2125  
Vukšić M. 881, 889

**W**

- Wagner B. 2017  
Wagner C. 739  
Wagner D. 1495  
Wallin J. 221  
Walter B. 401, 749  
Walter J. 1915  
Wang H.-H. 1957  
Wang M. 1965  
Wang Y. 553

**Wartzack S.** 291, 351, 689, 697, 975, 1523, 1719

- Weber C. 99, 659  
Weber J. 1585  
Weidmann D. 1427  
Weigl J. D. 1505  
Weil B. 589  
Weiser A.-K. 1435  
Wendrich R. E. 759  
Wenngren J. 967  
Whicher A. 77  
Whitney T. S. 561  
Wicht D. 261  
Wickman C. 2189  
Widgren M. 571  
Wiklund D. 669  
Wilberg J. 473, 1215, 1905  
Wilkinson C. R. 1815  
Willner K. 291  
Windheim M. 1445  
Winkler S. 271  
Winter R. 717  
Wodehouse A. 1025  
Woelfel C. 1205  
Wulvik A. 1845  
Wünsch A. 769  
Würtenberger J. 193, 341, 579  
Wynn D. 1275

**X**

- Xin Chen H. L. 1977

**Y**

- Yan B. 1145  
Yan S. 109  
Yannou B. 311, 907, 927, 1635  
Yannou-Le Bris G. 311, 927  
Yu S. 553

**Z**

- Zetterlund H. 221  
Zghair Y. A. 831  
Zheng C. 1625  
Zielbauer U. 717  
Ziethen D. 707  
Zubić A. 779

**Ž**

- Žavbi R. 2069  
Žeželj D. 779  
Žiljak Vujić J. 2197