

INTRODUCTION.....	5
<b>PART I GENERAL APPROACHES TO THE DESIGN PROCESS</b>	
<b>K. Bialas-Heltowski, R. Rohatynski</b>	
<i>THE USE OF SENSITIVITY OF OBJECTIVES FOR EVALUATION OF PARETO-OPTIMAL SOLUTIONS..</i>	9
<b>H. Birkhofer</b>	
<i>FIVE MINUTES FROM THE TASK TO THE OPTIMAL SOLUTION – A CONTRIBUTION TO AN ALGORITHM-BASED CONCEPTUAL DESIGN.....</i>	15
<b>P. J. Clarkson</b>	
<i>AN OPTIMAL DESIGN PROCESS FOR AN ADEQUATE PRODUCT? .....</i>	21
<b>W. J. Fabrycky, PH.D., P.E.</b>	
<i>EMBEDDING INTEGRATED PRODUCT DEVELOPMENT WITHIN THE SYSTEMS ENGINEERING PROCESS .....</i>	27
<b>H. Gsell</b>	
<i>A CONTENT MANAGEMENT FRAMEWORK FOR PRODUCT DEVELOPMENT.....</i>	35
<b>M. Jackson, S. Ekman</b>	
<i>THE NEED FOR A “NEW” INNOVATIVE PRODUCT DEVELOPMENT APPROACH.....</i>	43
<b>M. Jenko</b>	
<i>EMBEDDED SOFTWARE DEVELOPMENT WITHIN A PRODUCT DEFINITION - BENEFITS AND FRAMEWORK.....</i>	49
<b>Y. Kitamura</b>	
<i>ROLES OF ONTOLOGIES OF ENGINEERING ARTIFACTS FOR DESIGN KNOWLEDGE MODELING .....</i>	59
<b>P. Kurczewski, Z. Klos</b>	
<i>LIFE CYCLE MANAGEMENT – CONCEPT AND PRACTICAL POSSIBILITIES OF IMPLEMENTATION IN ORGANIZATIONS.....</i>	71
<b>U. Lindemann, M. Maurer</b>	
<i>SUPPORT OF THE DESIGN AND OPTIMIZATION OF COMPLEX PRODUCTS.....</i>	77
<b>B. Lopez-Mesa</b>	
<i>DESIGN METHODS AND THEIR SOUND USE IN PRACTICE .....</i>	87
<b>J. Matthews, B. Singh, A. J. Medland, G .Mullineux</b>	
<i>A CONSTRAINT-BASED MODELLING APPROACH, TO ASSESS THE CAPABILITY OF FOOD PROCESSING EQUIPMENT TO HANDLE PRODUCT VARIATION .....</i>	95
<b>C. A. McMahon, D. Davies</b>	
<i>THE USE OF ANNOTATION IN DESIGN REPRESENTATION.....</i>	105
<b>D. H. Müller, H. Gsell, N. Homburg</b>	
<i>PRODUCT DATA MANAGEMENT IN CONCURRENT ENTERPRISES.....</i>	113
<b>L. C. Parmee, J. A. Abraham, A. Machwe</b>	
<i>TWO ASPECTS OF HUMAN-CENTRIC EVOLUTIONARY DESIGN SYSTEMS .....</i>	119
<b>A. Samek</b>	
<i>BIONICS IN THE DESIGNING .....</i>	129
<b>T. Tomiyama</b>	
<i>DEALING WITH COMPLEXITY IN DESIGN: A KNOWLEDGE POINT OF VIEW .....</i>	137
<b>W. F. Van Der Vekte</b>	
<i>HYBRID SIMULATION OF THE USE OF PRODUCTS BY CONTROLLING CONTINUOUS BEHAVIOUR WITH STATE MACHINES .....</i>	147

	Page
<b>J. S. M. Vergeest, Y. Song, T.R. Langerak</b>	
<i>DESIGN INTENT MANAGEMENT FOR DESIGN REUSE</i>	163
<b>K. Wallace</b>	
<i>HOW ENGINEERING DESIGNERS RETRIEVE INFORMATION</i>	171
 <b>PART II</b>	
<b>SPECIFIC METHODS AND RELATED TOPICS</b>	
<b>T. Bekasiewicz, M. Gil, K. Szustakiewicz, K. Szustakiewicz</b>	
<i>OBJECT ORIENTED MODELING FOR THE INDUSTRIAL APPLICATIONS</i>	181
<b>J. Z. Czajgucki</b>	
<i>THE MODELS OF DESIGNED RELIABILITIES OF TECHNICAL ELEMENTS</i>	189
<b>J. Drewniak, W. Czader, S. Zawiślak</b>	
<i>COMPUTER AIDED DESIGN OF CYLINDRICAL AND BEVEL MODULAR GEAR SIZE RANGES</i>	193
<b>M. Dzikuc, P. Kuźdowicz</b>	
<i>PROALPHA® APS - THE ADVANCED TOOL FOR MULTI-RESOURCE-PLANNING AND REALTIME-OPTIMIZATION IN MIDDLE-SIZE ENTERPRISES</i>	197
<b>S. Elfving, A. Hellström</b>	
<i>NEED FOR CHANGE IN ENGINEERING DESIGN - HOW TO INCREASE THE NUMBER OF WOMEN IN THE BUSINESS</i>	201
<b>P. Kamiński</b>	
<i>FORMULATION OBJECTIVE FUNCTION OF THE DECISION - MAKING PROBLEM IN SHIP POWER PLANT</i>	205
<b>M. Owzoniarek</b>	
<i>INTEGRATED PRODUCT POLICY - STATE IN POLAND</i>	213
<b>S. Radkowski, M. Zawisza</b>	
<i>USE OF BISPECTRAL ANALYSIS IN PROGNOSIS OF THE SYSTEM DESTRUCTION PROCESS</i>	217
<b>R. Rohatyński, M. Sasiadek</b>	
<i>PLANNING AND SELECTION OF OPTIMAL ASSEMBLY SEQUENCE</i>	221
<b>V. Sedenkov</b>	
<i>DESIGN PROCESS: HOLISTIC VIEW</i>	227
<b>J. L. Spoormaker, I. D. Skrypnyk, A. J. Heidweiller</b>	
<i>PREDICTION OF THE BUCKLING OF THERMOPLASTIC PRODUCTS</i>	239
<b>Z. Weiss, D. Grajewski</b>	
<i>USE OF KNOWLEDGE MAPS TO RECOGNIZE DIFFERENT RESEARCH CAPABILITIES</i>	245
<b>E. Weiss, B. Waraczyński</b>	
<i>RAPID PROTOTYPING AND VACUUM CASTING IN PRODUCT DEVELOPMENT</i>	251
<b>P. A. Wrzecioniarz, D. Laska</b>	
<i>INTEGRATED APPROACH IN COMPUTER AIDED DESIGN PROCESS</i>	255
<b>Wu Zhiyun, J. Wróbel</b>	
<i>DISTRIBUTED COLLABOTATIVE DESIGN MANUFACTURE ESSENTIAL TECHNOLOGY AND SYSTEM REALIZATION SOLUTION</i>	261
<b>A. J. Medland, G. Mullineux</b>	
<i>UNDERSTANDING DESIGN COMPLEXITY THROUGH THE MODELLING OF HUMANS</i>	267
<b>H. Birkhofer, B. Ch. Weber</b>	
<i>THE CONSOLIDATION OF ENGINEERING DESIGN SCIENCE - AN UTOPIAN DREAM?</i>	CD