



# iDEMi 09

International Conference on Integration of  
Design, Engineering and Management for **innovation**

**14.15** September

FEUP | Faculty of Engineering of the University of Porto

Roberto Frias, Porto. **PORTUGAL**

## PROGRAMME



**Sunday.13.September**

15:30 - 16:30 Registration

17:00 - 19:00 Welcome Reception: Faculty of Engineering of the University of Porto, Roberto Frias, Porto (Room: Sala dos Actos)



## Monday. 14. September

08:15 - 09:00

Registration: Faculty Engineering of the University of Porto, Roberto Frias, Porto (Room: Sala dos Actos)

09:00 - 09:20

### **Welcome Session (Room: B032)**

António Augusto Fernandes: Conference Chair

Renato Natal Jorge: Conference Co-Chair

Aurora Teixeira: Conference Co-Chair

Lia Patrício: Conference Co-Chair

Carlos Costa: Faculty of Engineering Dean

José Costa: Faculty of Economics Dean

09:20 - 10:05

**Keynote Speche: *Why Human Behaviour in Design Matters*, Professor Petra Badke-Schaub, Faculty of Industrial Design Engineering, TU Delft (Room: B032)**

10:05 – 10:30

Coffee/Tea Break

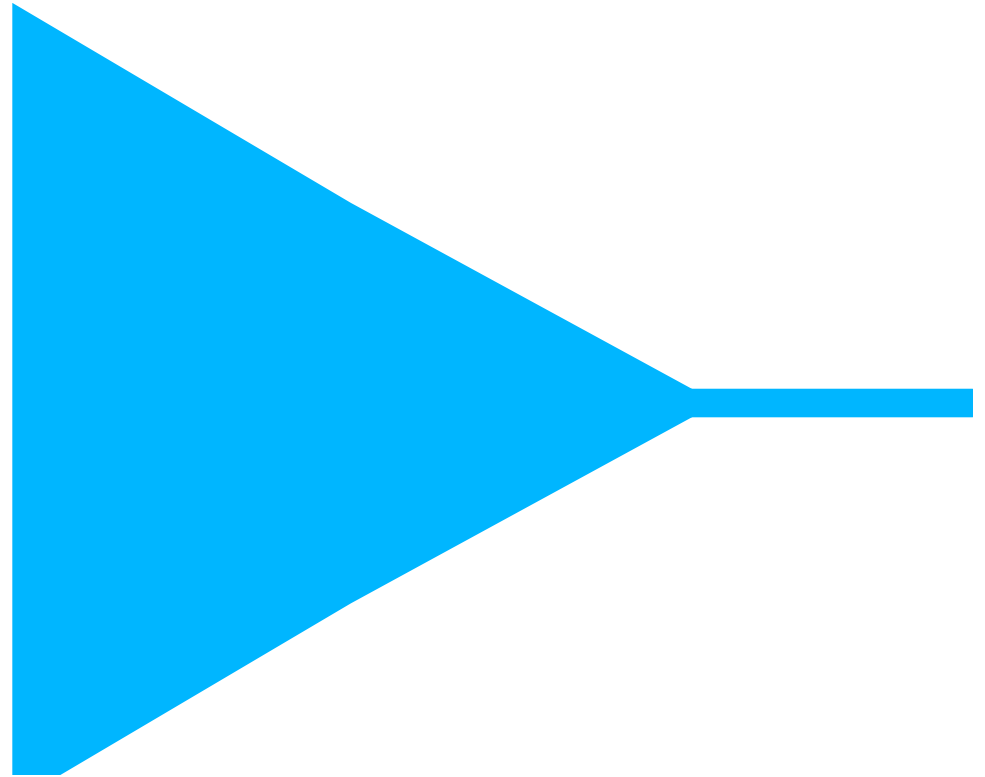
Parallel sessions	<b>SESSION 1</b> Chair: Silene Seibel	<b>SESSION 2</b> Chair: Petra Badke-Schaub	<b>SESSION 3</b> Chair: Teresa Franqueira	<b>SESSION 4</b> Chair: Antonio Ferreira
10:30 10:50	29- SUCCESSFUL IMPLEMENTATION OF NEED ORIENTATED R&D AND UNIVERSITY CO-OPERATION AS PREMISE OF PRODUCT DEVELOPMENT OF A SME IN PLASTICS INDUSTRY <b>Jukka Erik Silén</b>	64- SERVICE DESIGN DRIVEN INNOVATION IN A PUBLIC HOSPITAL <b>Clovis A.A. Netto</b>	50- ASSESSMENT OF THE POTENTIAL FOR IMPROVEMENTS IN THE USE OF LABORATORIES TEACHING ENGINEERING AND DESIGN ANALYSIS OF FLOWS THROUGH PRODUCTIVE <b>VIAN, Rogério</b>	14_ CONCEPTUAL MORPHOLOGICAL DESIGN C-K ANALYZED <b>Wim Zeiler</b>
10:50 11:10	44- BRAZIL AND THE UK – AN ANALYSIS OF THEIR SUSTAINABLE DESIGN CULTURE IN 21 <sup>ST</sup> CENTURY <b>Sarita Nunes Ramos Watts</b>	88- WEB BASED COLLABORATIVE NETWORK FOR PRODUCT DEVELOPMENT <b>S. Carmo-Silva</b>	96- AN INSTRUCTIONAL EXERCISE ON TARGET COST MANAGEMENT: A CUSTOMER CENTERED PRODUCT DESIGN APPROACH <b>Manuel J. Lopes Nunes</b>	21- DEVELOPING BREAKTHROUGH PRODUCTS IN DYNAMIC CONTEXTS THROUGH SYSTEMATIC DESIGN.A CASE STUDY <b>Sonia Vieira</b>

11:10 11:30	05- AN ANALYSIS OF PRODUCT DEVELOPMENT PROCESS FROM ACADEMIC AND INDUSTRIAL REFERENCE MODELS <b>Carlos Alberto Costa</b>	116- PACKAGING: A PRODUCT OF DESIGN OR ENGINEERING? <b>Roberto S. Ilhescas</b>	25- IMPROVING UNIVERSITY SERVICES TROUGH "THE VOICE OF COSTUMER" METHOD – TEST SHEETS <b>M. Mercedes Esquivel</b>	86- DESIGN CREATIVITY AND INNOVATION <b>Mirjana Sujic</b>
11:30 11:50	120- MANAGING LEARNING DESIGN-DRIVEN INNOVATION: THE SECRET OF LEARNING DESIGN <b>Clovis Armando Alvarenga Netto</b>	100- ANALYSIS OF MOBILITY SUPPORT PRODUCTS UNDER THE EVOLUTION LAWS OF TECHNICAL SYSTEMS FOR DETECTING OPPORTUNITIES OF INNOVATION <b>Jaime Aguilar-Zambrano</b>	20- INTEGRATION OF ECODSIGN PRACTICES IN THE PRODUCT DEVELOPMENT PROCESS USING POLICY DEPLOYMENT TOOLS <b>João Paulo Pereira</b>	55- ORGANISATIONAL DESIGN <b>Ivana Milosev</b>
11:50 12:10	07- SOLIDWORKS SOFTWARE: ONE PROPOSAL OF DIDACTIC MATERIAL FOR PRODUCT DEVELOPMENT IN THE DESIGN AREA. <b>Francisco de Alencar</b>	08- RELATIONSHIP CAPABILITIES, PRODUCT QUALITY, AND INNOVATION AS DETERMINANTS OF EXPORT PERFORMANCE <b>Luis Filipe Lages</b>	27- TRANSLATING LEAN THINKING TO DESIGN PROCESS: IDENTIFYING <i>MUDA</i> IN DESIGNING <b>Sonia Vieira</b>	68- CONSIDERING THE INCLUSION OF WORTH AND VALUES IN THE DESIGN OF INTERACTIVE ARTIFACTS <b>Nuno Otero</b>
12:10 12:30	09- CONTRIBUTION OF PRODUCT DESIGN METHODOLOGIES RESEARCH <b>Maria João Félix</b>	110- INTERACTIONS BETWEEN APPAREL DESIGN AND SEAMLESS TECHNOLOGY <b>Emanuele Biolo Magnus</b>	60- STRATEGIES FOR IMPLEMENTATION OF THE BUSINESS PROCESSES MANAGEMENT, WITH CLOSE ASSOCIATION WITH THE TRADITIONAL PYRAMIDAL MANAGEMENT <b>Oswaldo Luiz Agostinho</b>	119- VISUAL SYNTHESIS – A NEW METHODOLOGICAL RESOURCE FOR THE DESIGN OF INDUSTRIAL PRODUCTS <b>Joel Lacerda</b>
12:30 12:50	72- PROCESS ORIENTED KNOWLEDGE MANAGEMENT FOR PRODUCT DEVELOPMENT <b>Florent Jochaud</b>	94- CUSTOMERS' REQUIREMENTS IDENTIFICATION TO IMPROVE CUSTOMER EXPERIENCES <b>Rui Carreira</b>	123- MILESTONES IN THE MECHANICAL PRODUCT DESIGN OF SEALED OPTICAL LINEAR ENCODERS <b>Jesús López</b>	51- LEAN MANUFACTURING: PRACTICAL PROJECT SEARCHING SPECIAL CAUSES OF VARIATION <b>Simone Sartori</b>

12:50 - 14.00      Lunch Time

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14:00 – 14:45

**Keynote Speech: Social Innovations for a Sustainable Design, Professor Teresa Franqueira, University of Aveiro (Room: Auditorium)**

Parallel sessions	<b>SESSION 4 Chair: Filipa Reis</b>	<b>SESSION 5 Chair: Lia Patricio</b>	<b>SESSION 6 Chair: Eduardo Martins</b>	<b>SESSION 7 Chair: Paulo Tavares Castro</b>
14:50 15:10	99- FUTURE SCENARIOS IN THE CONTEXT OF EMERGING SUSTAINABLE LIVING LANDSCAPE <b>Carlos Casimiro</b>	52- DESIGN METHODOLOGIES FOR PRODUCT ORIENTED MANUFACTURING SYSTEMS <b>S. Carmo-Silva</b>	65- PATTERNS OF THOUGHTS AND ARGUMENTATION IN PLANNING PROCESS OF DESIGN COMPANIES, A CASE STUDY <b>Esa Kannisto</b>	140- ADVANCED MANUFACTURING FOR IMPROVED ENGINEERING DESIGN: THE CASE OF FRICTION STIR WELDING IN AERONAUTICS <b>A Sérgio M.O. Tavares</b>
15:10 15:30	63- INNOVATING SERVICE PROCESS MANAGEMENT IN A PUBLIC HOSPITAL <b>Clovis A.do Alvarenga Netto</b>	126- OPPORTUNITIES FOR OPEN INNOVATION MODEL APPLICATION IN SERBIA <b>Andrea Katic</b>	105- KAIZEN COSTING: EXTENDING NPD PROCESS TO SUPPLIERS <b>Manuel L. Nunes</b>	128- COMFORT SEAT MODULE – FIRST CLASS COMFORT FOR ALL <b>Rui Carreira</b>
15:30 15:50	92- A NEW BUSINESS MODEL FOR TREATMENT OF HOSPITAL WASTE USING A CHEMICAL PROCESS <b>Carlos O. Teles</b>	10- CORK AND DESIGN <b>Luís Gil</b>	75- DESIGNING BETTER VEHICLES <b>José A. N. Loureiro</b>	132- INNOVATION IN TRADITIONAL MANUFACTURING BASED SMEs: A CASE STUDY <b>Pedro Teixeira</b>

15:50 - 16:10 Coffee/Tea Break

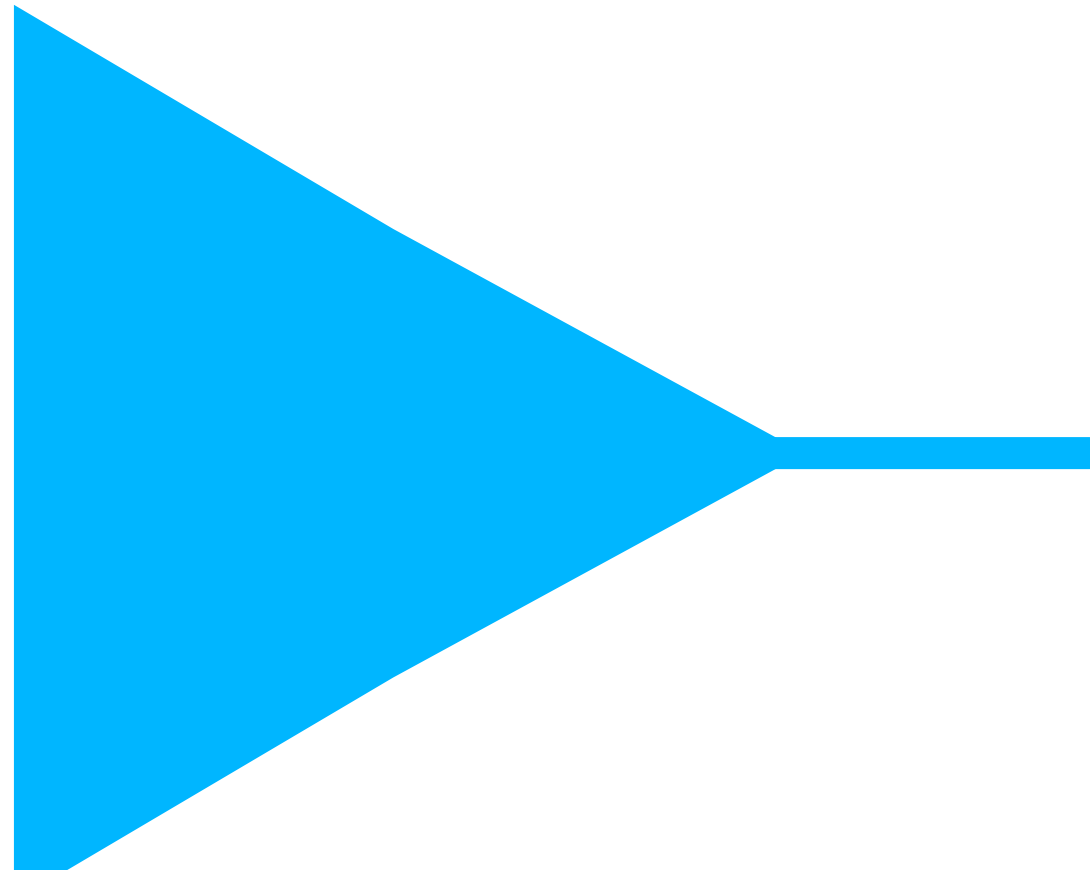
Parallel sessions	<b>SESSION 8</b> Chair: <b>Filipa Reis</b>	<b>SESSION 9</b> Chair: <b>J. Christiansen</b>	<b>SESSION 10</b> Chair: <b>Oswaldo Luis Agostinho</b>	<b>SESSION 11</b> Chair: <b>Lia Patricio</b>
16:10 16:30	54- DESIGN AND LAW - DIAGNOSTICS OF SMALL PRODUCTIVE GROUPS AND THEIR FORMS OF ACTION AND PROTECTION <b>Julio Monteiro Teixeira</b>	71- SAAS: CO-CREATION OF VALUE FOR CONDOMINIUM USERS THROUGH THE INTERNET <b>Nelson Pinho</b>	87- THE INFLUENCE OF GUIDANCE SYSTEM IN INDOOR WAYFINDING USING VISRTUAL REALITY <b>Elisângela P. Vilar</b>	139- RATIONALIZATION OF THE LASER CUTTING MACHINE ADIRA CCL 3015 <b>José Miguel Alves Estrela</b>
16:30 16:50	67- SUPPORTING FIRST STAGES OF COLLABORATIVE INTERACTIONS BETWEEN SME'S AND RESEARCH ORGANIZATIONS: THE ILLATIO APPROACH <b>José Javier Aguilar-Zambrano</b>	85- EXPLORING GAME TASKS TO PRODUCE HIGH LEVELS OF IMMERSION IN VIRTUAL REALITY: AN EXPERIMENT IN THE SCOPE OF SAFETY WARNINGS EVALUATION <b>M. Emília C. Duarte</b>	89- PRODUCTS AND ORDERS CONFIGURATOR BASED ON WEB SERVICES <b>António Arrais de Castro</b>	134- PRODUCT CLOTHING OF TECHNICAL GOODS – THE CASE OF PNEUMATIC INSTANT FITTINGS <b>Carlos C. da Fonte</b>

17:30

Departure to Tour of Porto city by bus sightseeing

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## ▶ Tuesday.15. September

09:30 – 10:15 **Keynote Speech: *MODELS OF MANAGEMENT OF INNOVATION AND PRODUCT DEVELOPMENT*, Professor John K. Christiansen, Copenhagen Business School (Room: Auditorium)**

10:15 - 10:30 Coffee/Tea Break

Parallel sessions	<b>SESSION 12</b> Chair: <b>Silene Seibel</b>	<b>SESSION 13</b> Chair: <b>Aurora Teixeira</b>	<b>SESSION 14</b> Chair: <b>Valentina Nisi</b>
10:30 10:50	49- ASSESSMENT OF POTENTIAL FOR INNOVATION IN BENEFICIATION OF PRECIOUS STONES THROUGH THE USE OF COMPUTERIZED NUMERICAL CONTROL FOR MILLING - CNC - AND IDENTIFICATION OF FAULTS AND THEIR CAUSES THROUGH THE FMEA <b>Eduardo Bruxel</b>	33- ALIGNING DESIGN AND THE SOCIAL INNOVATION APPROACH <b>Gisele Merino</b>	48- APPLICATION THE QUALITATIVE ISOTOPIC ANALYSIS OF THE DESIGN IMPACT IN THE UTILITARIAN AND ORNAMENTAL PORTUGUESE CERAMIC INDUSTRY <b>Raquel J. Antunes</b>
10:50 11:10	80- DESIGN APPLIED TO FAMILY AGRICULTURE AND AQUACULTURE BASED ON SOCIAL INNOVATION <b>Gisele Merino</b>	43- SOCIAL RESPONSIBILITY DESIGN, A MODEL FOR SUSTAINABLE DEVELOPMENT <b>Sérgio Lemos</b>	108- ANALYSIS OF PRODUCT DESIGN AND DEVELOPMENT METHODOLOGIES TOWARDS A SPECIFIC IMPLEMENTATION FOR EMBEDDED MICROELECTRONICS <b>Ricardo Simoes</b>
11:10 11:30	106- THE ROLE OF DEVICES IN STAGING FRONT END INNOVATION <b>Yutaka Yoshinaka</b>	06- ANALYTICAL METHOD TO EVALUATING BRANDS STRATEGY, THEIR TRENDS AND POTENTIALS FOR PRODUCT DEVELOPMENT <b>M.H.Namayandegi</b>	109- THE IMPLICATIONS OF DOING IT YOURSELF <b>Wim Zeiler</b>
11:30 11:50	35- DESIGN AND IMPLEMENTATION OF THE GUI OF A SOFTWARE TOOL FOR STRUCTURAL COMPLEXITY MANAGEMENT <b>Wieland Biedermann</b>	130- MOBILE SERVICE EXPERIENCE, AN EXPLORATORY STUDY <b>Teresa Samento</b>	<b>xx</b>

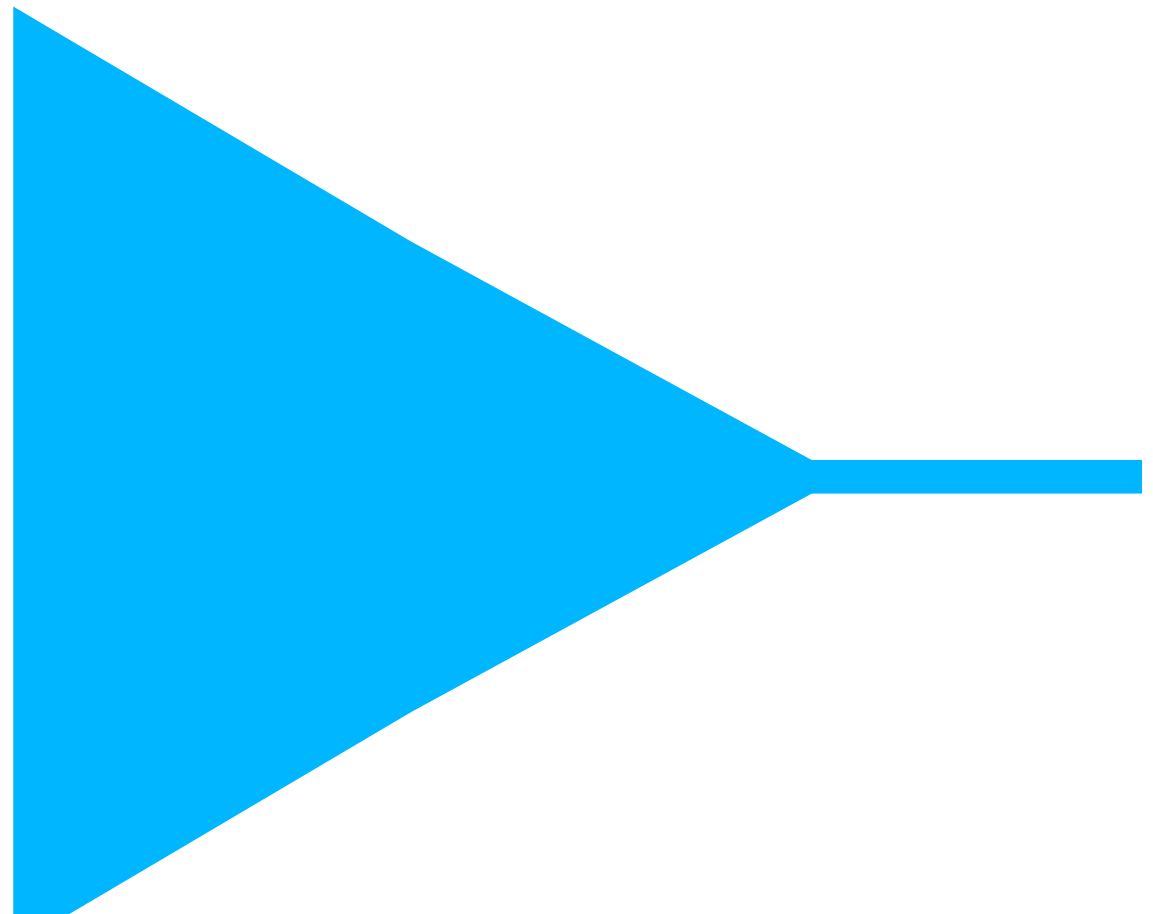
11:50 12:10	118- STRATEGIC DESIGN AND BALANCED SCORECARD: LINKING BUSINESS STRATEGY AND DESIGN STRATEGY <b>Eugenio Merino</b>	91- A PEER BASED DISTRIBUTED DATABASE SYSTEM FOR SUPPORTING COLLABORATIVE PRODUCT DESIGN <b>Maria Leonilde Rocha Varela</b>	122- PRODUCT DEVELOPMENT MANAGEMENT WITH SOCIETAL MARKETING CONCEPT <b>Masaru Ishioka</b>
12:10 12:30	82- EVALUATION OF MANAGEMENT FOR INNOVATION IN BRAZILIAN DESIGN FIRMS <b>Anderson A. Freire</b>	92- A NEW BUSINESS MODEL FOR TREATMENT OF HOSPITAL WASTE USING A CHEMICAL PROCESS <b>Carlos O. Teles</b>	90- DESIGN FOR X: CORK AS A SUITABLE MATERIAL FOR ENVIRONMENT AND ITS IMPLICATIONS IN PERFORMANCE <b>Bruno Soares</b>
12:30 12:50	39- THE DESIGN PROCESS AND THE NEEDED DIGITAL TOOLS FOR MATERIAL SELECTION <b>Pedro. S. Ramalhete</b>	66- PACKAGING INNOVATIONS FROM THE PERSPECTIVE OF NEW TECHNOLOGIES. NEW COMMUNICATION APPROACHES. <b>Maria J. Mariano</b>	129- VALUE CREATION IN PRODUCT DEVELOPMENT IN THE FURNITURE INDUSTRY <b>Albertina P.Medeiros</b>

12:50 - 14.00

Lunch Time

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14:00 – 14:45

**Keynote Speech: *DESIGN AND ENGINEERING IN PRODUCT DEVELOPMENT*, Rui Marcelino, ALMADESIGN, Portugal (Room: Auditorium)**

Parallel sessions	<b>SESSION 15</b> <b>Chair: Aurora Teixeira</b>	<b>SESSION 16</b> <b>Chair: Renato Natal</b>	<b>SESSION 17</b> <b>Chair: Osvaldo Luis Agostinho</b>
14:50 15:10	81- MANAGEMENT MODEL OF DESIGN APPLIED TO ORGANIZATIONS AND PRODUCTS BASED ON COMPETITIVENESS, DIFFERENTIATION AND SUSTAINABILITY <b>Gisele Merino</b>	133- ADHESIVE JOINT DESIGN <b>Filipe Chaves</b>	xx
15:10 15:30	xx	74- DESIGN ROLE ON COMPUTER HARDWARE INDUSTRY INNOVATION <b>Nelson Pereira</b>	70- TOLERANCING OF INDUSTRIAL GEAR ASSEMBLY SETS USING QFD´S “HOUSE OF QUALITY” <b>Helena V. G. Navas</b>

15:30 - 15:50

Coffee Tea Break

Parallel sessions	<b>SESSION 18</b> <b>Chair: Aurora Teixeira</b>	<b>SESSION 19</b> <b>Chair: Renato Natal</b>	<b>SESSION 20</b> <b>Chair: Lia Patricio</b>
15:50 16:10	79- THE ROLE OF INNOVATION IN CONCURRENT DESIGN MODEL (CDM) AND ITS CONSEQUENCES ON THE ASPECTS OF COMPETITIVENESS, DIFFERENTIATION AND SUSTAINABILITY <b>Eugenio Merino</b>	xx	59- USE OF BAMBOO SPECIES <i>CHUSQUEA CULEOU</i> IN THE PRODUCTION OF GLUED LAMINATED BEAMS <b>Ernesto Augusto Garbe</b>
16:10 16:30	xx	138- DESIGN AND CREATIVITY IN SUSTAINABLE PRODUCT INNOVATION: THE DESIGN CORK PROJECT CASE <b>Ana Mestre</b>	111-RADIO FREQUENCY IDENTIFICATION (RFID) TECHNOLOGY: A BENCHMARKING APPROACH IN RETAILING <b>Susan Garrido</b>
16:30 16:50	xx	127 - INTERINSTITUTIONAL NETS FOR THE CONSTRUCTION OF A GLOSSARY AND A MANUAL OF ARCHITECTONICAL DRAWING TEACHING FOR DEAF PEOPLE <b>Regina C. G. Leite</b>	62- GRAPHIC PROTOTYPES: VISUAL-TACTILE IMAGES ACCESSIBLE TO BLIND PEOPLE <b>Maria Lucia Batezat</b>
16:50 17:10	40- PRODUCT DEVELOPMENT METHODS AND SME'S: TENSION BETWEEN FORMAL STRUCTURED METHODS AND INFORMAL APPROACHES <b>António José de Jesus Gomes</b>		

17:30

**Conference Closing**

Antonio Augusto Fernandes,  
Engineering Faculty of University Porto  
Best Papers of the IDEMI09 Conference

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