

## Detailed programme of Parallel Sessions

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|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ID</b>  | <b>9th september</b>                                                                                                                                                                                                |
|            | <b>11:00-12:30</b>                                                                                                                                                                                                  |
| <b>MA1</b> | <b>SPECIAL SESSION: Sustainable Electric Mobility 1</b>                                                                                                                                                             |
|            | Room 2.2                                                                                                                                                                                                            |
| Chair      | <i>Paulo Pereirinha</i>                                                                                                                                                                                             |
|            | CHALLENGES AND WORLDWIDE CONTEXT OF E-MOBILITY<br>Robert Stussi                                                                                                                                                     |
| 34         | MODELING CONSUMER PREFERENCES FOR ELECTRIC VEHICLES: AN EXPLORATORY STUDY<br>Gabriela D. Oliveira, Luís C. Dias, Paula Sarabando                                                                                    |
| 53         | ASSESSMENT OF ENERGY REQUIREMENTS AND ENVIRONMENTAL IMPACTS OF ELECTRIC VEHICLES<br>Filipe J. Soares, Pedro M. Rocha Almeida, Pedro Iria, João A. Peças Lopes                                                       |
| 137        | A PERSPECTIVE OF URBAN ELECTRIC MOBILITY: DAILY ELECTRIC VEHICLE SCENARIO ANALYSIS USING ENERGY BOX TECHNOLOGY<br>Paulo G. Pereirinha, João P. Trovão, Hugo Neves de Melo, Humberto Jorge, Carlos Henggeler Antunes |
| <b>MA2</b> | <b>SPECIAL SESSION: Life-cycle assessment in the built environment</b>                                                                                                                                              |
|            | Room 2.3                                                                                                                                                                                                            |
| Chair      | <i>Stuart Batterman</i>                                                                                                                                                                                             |
| 78         | COMPARATIVE LIFE-CYCLE ANALYSIS OF RESIDENTIAL TYPOLOGIES IN LISBON, PORTUGAL: AN APARTMENT BUILDING AND TWO SEMI-DETACHED HOUSES<br>Joana Bastos, Stuart Batterman, Fausto Freire                                  |
| 83         | ENVIRONMENTAL PRODUCT DECLARATION FOR CERAMIC TILE<br>Marisa A. Almeida, Martha Demertzi, Ana C. Dias, Luís Arroja                                                                                                  |
| 126        | ADDRESSING OCCUPANCY IN THE ENERGY AND GREENHOUSE GAS ASSESSMENT OF BUILDING RETROFIT<br>Carla Rodrigues, Fausto Freire                                                                                             |
| 131        | ENERGY AND CARBON ASSESSMENT OF CONSTRUCTION MATERIALS FOR A MODULAR PREFAB HOUSE<br>Vanessa Tavares, Fausto Freire, Nuno Lacerda                                                                                   |
| <b>MA3</b> | <b>SMART CITIES: Energy Storage and Human Dimensions</b>                                                                                                                                                            |
|            | Room 2.4                                                                                                                                                                                                            |
| Chair      | <i>Pedro Moura</i>                                                                                                                                                                                                  |
| 97         | ASSESSMENT OF BEST LOCATION OF DISTRIBUTED STORAGE USING IMPROVED GENETIC ALGORITHMS'<br>José António Ribeiro Gonçalves, Romeu M. Vitorino, Luís M. P. Neves, António Gomes Martins                                 |
| 68         | ENERGY STORAGE SYSTEM FOR COMMUNITIES<br>Maximilian Votteler                                                                                                                                                        |
| 140        | HUMAN DIMENSION AND DEMAND-SIDE MANAGEMENT: CONNECTING AREAS<br>Catarina M. C. Sabino, António G. Martins                                                                                                           |
| 85         | SUSTAINABILITY AS ARCHITECTURE FOR PEOPLE - THE CASE OF FOOTBALL STADIUMS<br>Susana Lucas, Armando Silva-Afonso, Victor Ferreira                                                                                    |

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| <b>11:00-12:30</b> |                                                                                                                                                                                                                                 |
| <b>MA4</b>         | <b>POLICY AND ASSESSMENT: Energy policy</b>                                                                                                                                                                                     |
|                    | Room 2.5                                                                                                                                                                                                                        |
| Chair              | <i>Viktors Zebergs</i>                                                                                                                                                                                                          |
| 37                 | RISK-ADJUSTED EVALUATION OF FOSSIL FUELS' COST: NA INTROSPECTIVE ON THE RISK RELATED TO FOSSIL FUELS<br>Dario Ruffa                                                                                                             |
| 18                 | BANKING AND BACKLOADING EMISSION PERMITS<br>Corinne Chaton, Anna Creti, Benoît Péluchon                                                                                                                                         |
| 16                 | THE POLICY COHERENCE FOR THE IMPLEMENTATION OF SUSTAINABLE ENERGY ACTION PLANS ON NATIONAL, REGIONAL AND MUNICIPAL LEVELS<br>Namejs Zeltins, Viktors Zebergs, Gita Actina, Indra Niedrite                                       |
| 45                 | THE SOCIAL CONSTRUCTION OF HEATING AND COOLING PRACTICES<br>Susana Fonseca                                                                                                                                                      |
| <b>14:00-16:00</b> |                                                                                                                                                                                                                                 |
| <b>MB1</b>         | <b>CLEANER ENERGY SUPPLY: Renewable Energy</b>                                                                                                                                                                                  |
|                    | Room 2.2                                                                                                                                                                                                                        |
| Chair              | <i>Almerindo Ferreira</i>                                                                                                                                                                                                       |
| 118                | A HOLISTIC APPROACH TO SOLAR ENERGY PRODUCTION AND MANAGEMENT FOR SUSTAINABLE DEVELOPMENT<br>George Papageorgiou, Athanasios Maimaris, Savvas Hadjixenophontos                                                                  |
| 11                 | DEVELOPING A NOVEL METHOD FOR PREDICTING NEARSHORE WAVE ENERGY IN MATOSINHOS, PORTUGAL<br>Mohammad Mohaghar, Zeinab Mousavi Karimi, Almerindo D. Ferreira                                                                       |
| 32                 | MULTI CRITERIA ANALYSIS OF LOW VOLTAGE GRID EXPANSIONS<br>Tobias Luehn, Katharina Amann, Genoveva Schmidtman, Jutta Geldermann                                                                                                  |
| 105                | PRE-TREATMENT OF FOREST RESIDUAL BIOMASS FOR USE IN SMALL-SCALE BIOENERGY PRODUCTION SYSTEMS<br>Valeria Reva, Samuel Valente, José J. Costa, Daniel Vaz                                                                         |
| <b>MB2</b>         | <b>SPECIAL SESSION: Biofuels &amp; Bioenergy 1</b>                                                                                                                                                                              |
|                    | Room 2.3                                                                                                                                                                                                                        |
| Chair              | <i>Fausto Freire</i>                                                                                                                                                                                                            |
| 77                 | EVALUATION OF THE SUSTAINABILITY OF INDUSTRIAL BIOHYDROGEN PRODUCTION BY MICROALGAE, AND INTEGRATION IN TAXI/BUS TRANSPORT SYSTEMS<br>Carla M. Silva, Ana F. Ferreira, João F. Ribau                                            |
| 79                 | MICROALGAE BIOMASS HARVESTING BY ELECTROCOAGULATION<br>Cristina T. Matos, Marta Santos, Beatriz P. Nobre, Luísa Gouveia                                                                                                         |
| 129                | TECHNOLOGY EXPERTS VISIONS FOR MICROALGAE BIOFUELS: A DELPHI STUDY<br>Lauro André Ribeiro, Patrícia Pereira da Silva                                                                                                            |
| 122                | SUSTAINABILITY EVALUATION OF BIODIESEL FROM MICROALGAE SCENEDESMUS OBLIQUUS GROWN IN BREWERY WASTEWATER<br>Teresa M. Mata, João Nunes, Ana C. Melo, António A. Martins, Nídia S. Caetano                                        |
| 123                | LIPID CONTENT AND PRODUCTIVITY OF ARTHROSPIRA PLATENSIS AND CHLORELLA VULGARIS UNDER SALINITY STRESS AND MIXOTROPHIC GROWTH CONDITIONS<br>Teresa M. Mata, Octávio Oliveira, Sandra Oliveira, Adélio M. Mendes, Nídia S. Caetano |

## 14:00-16:00

### MB3 BUILDINGS AND END-USES: Buildings 1

Room 2.4

Chair *John Gelezenis*

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| 60  | NEW ENERGY PERFORMANCE INDEXES FOR ENERGY-EFFICIENT INTERACTIVE BUILDINGS<br>Marta O. Panão, Susana L. Camelo, Helder Gonçalves                                                               |
| 62  | APPLYING A MULTICRITERIA MODEL TO EVALUATE RENOVATION MEASURES IN THE EXISTING BUILDING STOCK AT URBAN SCALE<br>Dulce H. Coelho, Carlos Henggeler Antunes, António G. Martins                 |
| 80  | MULTI-ATTRIBUTE CLASSIFICATION OF HOUSING CONSERVATION STATUS IN URBAN REGENERATION ACTIONS<br>Eduardo Natividade-Jesus, João Coutinho-Rodrigues, Lino Tralhão, Nuno Sousa                    |
| 127 | DEFINITION OF REFERENCE BUILDINGS FOR ENERGY PERFORMANCE CALCULATION – PORTUGUESE CASE<br>Catarina Serra, Nuno Simões, Sérgio Tadeu, António Tadeu                                            |
| 10  | ENERGY EFFICIENCY MEASURES IN PORTUGUESE RESIDENTIAL BUILDINGS CONSTRUCTED BEFORE 1960: A COST-OPTIMAL ASSESSMENT<br>Sérgio Tadeu, Nuno Simões, João Ribeiro, Márcio Gonçalves, António Tadeu |

## 16:30-18:45

### MC1 SPECIAL SESSION: Energy Behaviours

Room 2.2

Chair *Marta Lopes*

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| 51  | THE ROLE OF SAVINGS IN ENERGY MANAGEMENT<br>Jorge M. S. Rocha                                                                                                                                                       |
| 84  | BROADENING THE ENERGY SAVINGS POTENTIAL OF PEOPLE: FROM TECHNOLOGY AND BEHAVIOR TO CITIZEN SCIENCE AND SOCIAL POTENTIAL<br>Kathryn B. Janda, Mithra Moezzi                                                          |
| 104 | EFFICIENT LIGHTING DESIGN FOR A MUSEUM EXHIBITION ROOM<br>Luís M. Pedro, Paulo F. Tavares, Dulce H. Coelho                                                                                                          |
| 96  | FEATURES OF THE MEASURED ATTITUDE TO ACCEPTING A DEMAND-RESPONSE ENABLING TECHNOLOGY IN USING ELECTRICITY AT HOME AND ITS ROLE IN FORECASTING INTENTION AND WILLINGNESS TO TRY<br>Maria Sao Joao Breda, Marta Lopes |
| 52  | ENERGY BEHAVIOUR CHANGES DURING THE TRANSITION TO SMART(ER) GRIDS: A KEY TO FOSTER HIGHER LEVELS OF ENERGY EFFICIENCY<br>Marta Lopes, Carlos Henggeler Antunes, Paulo Peixoto, Nelson Martins, Maria São João Breda |
| 25  | ENERGY MANAGEMENT IN RESIDENTIAL SECTOR AND EVALUATION OF HOUSEHOLDS' ACCEPTANCE FOR SOLAR MICROGENERATION SYSTEM<br>Mehrshad Radmehr, Ken Willis, Ugo Elinwa Kenechi                                               |

**16:30-18:45**

**MC2 SPECIAL SESSION: Biofuels & Bioenergy 2**

Room 2.3

Chair *Gil Anderi da Silva*

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| 41  | LIFE CYCLE ASSESSMENT OF BIODIESEL PRODUCTION UNIT FROM FRYING OIL<br>Flávio Orlandin, V. M. Santos, V. G. Maciel, W. Menezes, R. Ligabue, M. Seferin                                                                              |
| 44  | LIFE CYCLE ASSESSMENT OF GLYCEROL, BY PRODUCT OF BIODIESEL PRODUCTION<br>Wagner Menezes, M. F. Paim, V. G. Maciel, M. Portilho, S. Einloft, M. Seferin                                                                             |
| 49  | LIFE CYCLE INVENTORY OF SOYBEAN IN THE STATE OF RIO GRANDE DO SUL, BRAZIL<br>Vinícius Gonçalves Maciel, W. Menezes, V. H. J. M. Santos, S. Einloft, M. Seferin                                                                     |
| 73  | LIFE CYCLE ASSESSMENT OF BIOENERGY FROM EUCALYPT FOREST RESIDUES<br>Ana Cláudia Dias, Luis Arroja                                                                                                                                  |
| 128 | A COMPARATIVE LIFE CYCLE ASSESSMENT OF BIODIESEL FROM SOYBEAN OIL AND BEEF TALLOW IN BRAZIL<br>Suani Teixeira Coelho, Gil Anderi Silva, Fausto Freire, Renata Grisoli, Érica Castanheira, Vanessa Pecora Garcilasso, Alex Nogueira |

**MC3 BUILDINGS AND END-USES: Buildings 2**

Room 2.4

Chair *Marta Panão*

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| 144 | ASSESSMENT OF AIR INFILTRATION RATES IN PORTUGUESE DWELLINGS BY THE METABOLIC CO2 METHOD<br>Maria Rocheta Gomes, Manuel Gameiro da Silva, Nuno Simões                                                 |
| 27  | THE USE OF ENERGY SIMULATION TOOLS FOR A BETTER DESIGN: EVALUATION OF A THERMAL MODELING AND CALIBRATION METHOD IN A BUDGET HOTEL IN BRAZIL<br>Anarrita B. Buoro, Marcia P. Alucci, Alberto Hernandez |
| 48  | THE IMPACT OF THE AUTOMATION AND CONTROL SYSTEMS ON THE ENERGY PERFORMANCE OF BUILDINGS: A CASE-STUDY OF A HOTEL BUILDING<br>Júlio S. da Silva, Inácio A. Fonseca, Dulce H. Coelho, Fernando J. Lopes |
| 143 | THE DEFINITION OF VENTILATION REQUIREMENTS IN THE RECENT REVISION OF PORTUGUESE REGULATION<br>Manuel Gameiro da Silva, José Joaquim Costa, Armando Pinto, Ana Margarida Pinto, Paulo Santos           |
| 64  | COMPARISON BETWEEN SEPARATED AND MECHANICALLY COUPLED TWIN ASCENDANT AND DESCENDANT ESCALATORS<br>Fernando J. T. E. Ferreira, Aníbal T. de Almeida                                                    |

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| <b>16:30-18:45</b> |                                                                                                                                                    |
| <b>MC4</b>         | <b>SPECIAL SESSION: Energy Markets</b>                                                                                                             |
|                    | Room 2.5                                                                                                                                           |
| Chair              | <i>Patrícia Pereira da Silva</i>                                                                                                                   |
| 112                | RELATIONSHIP BETWEEN OIL PRICES AND WORLD SECTOR STOCK RETURNS:<br>USING WAVELETS<br>Mara Madaleno, Carlos Pinho                                   |
| 113                | DOES OIL PRODUCTION PROMOTE ECONOMIC GROWTH IN OPEC COUNTRIES?<br>José Alberto Fuinhas, António Cardoso Marques, Tânia Noélia Quaresma             |
| 107                | ELECTRICITY INTEGRATION IN SOUTH AMERICA<br>Nivalde J. de Castro, André Luis S. Leite, Roberto Brandão                                             |
| 109                | TRANSACTIONS COSTS ECONOMICS, PROPERTY RIGHTS AND FIRMS' STRATEGIES<br>IN THE BRAZILIAN POWER INDUSTRY<br>Edvaldo A. Santana, Dilcemar P. Mendes   |
| 110                | EXPLANATORY VARIABLES ON CENTRAL-WEST SPOT ELECTRICITY MARKETS<br>INTEGRATION<br>Nuno Carvalho Figueiredo, Patrícia Pereira da Silva               |
| 111                | ENVIRONMENTAL POLICY IMPACT ON DIRTY VERSUS ECOLOGICAL TECHNOLOGY IN<br>AN ENDOGENOUS GROWTH MODEL<br>Mónica Meireles, Isabel Soares, Oscar Afonso |

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| <b>ID</b>  | <b>10th september</b>                                                                                                                                                     |
|            | <b>9:00-11:00</b>                                                                                                                                                         |
| <b>TA1</b> | <b>SPECIAL SESSION: Sustainable Electric Mobility 2</b>                                                                                                                   |
|            | Room 2.2                                                                                                                                                                  |
| Chair      | <i>Luis Dias</i>                                                                                                                                                          |
| 74         | ELECTRIC MOBILITY: IMPACT ON OVERALL GHG EMISSIONS AND ON THE ELECTRICAL GRID<br>Ricardo Faria, Nuno Melo, Pedro Moura, Joaquim Delgado, Aníbal Traça de Almeida          |
| 133        | LIFE CYCLE ASSESSMENT OF ELECTRIC AND CONVENCIONAL CARS IN PORTUGAL<br>Pedro Marques, Rita Garcia, Fausto Freire                                                          |
| 134        | COMMUNICATING LIFE-CYCLE ASSESSMENT RESULTS: A COMPARISON OF VEHICLE ALTERNATIVES IN PORTUGAL<br>Ana Rita Domingues, Pedro Marques, Rita Garcia, Fausto Freire, Luís Dias |
| 135        | A FLEET-BASED LIFE-CYCLE ASSESSMENT OF ELECTRIC VEHICLES IN PORTUGAL<br>Rita Garcia, Fausto Freire                                                                        |
| 142        | COMPARATIVE LIFE-CYCLE ASSESSMENT OF TWO CAR ARMRESTS PRODUCED AT CIE PLASFIL<br>Carlos Ferreira, Cláudia Esteves, Pedro Silva, Gonçalo Tomé, Fausto Freire               |
| <b>TA2</b> | <b>SPECIAL SESSION: Biofuels &amp; Bioenergy 3</b>                                                                                                                        |
|            | Room 2.3                                                                                                                                                                  |
| Chair      | <i>Suani Teixeira Coelho</i>                                                                                                                                              |
| 124        | GHG EMISSIONS ANALYSIS OF BIODIESEL FROM WASTE COOKING OIL IN PORTUGAL<br>Carla Caldeira, João Queirós, Érica Castanheira, Fausto Freire                                  |
| 125        | GREENHOUSE GAS FOOTPRINT OF PALM OIL FROM COLOMBIA<br>Érica Castanheira, Fausto Freire                                                                                    |
| 138        | COMPARATIVE GHG ASSESSMENT OF BIODIESEL PRODUCED FROM RAPESEED, SOYBEAN AND SUNFLOWER<br>João Malça, Érica Castanheira, Filipa Figueiredo, Renato Carvalho, Fausto Freire |
| 139        | DETERMINATION OF TOXICOLOGICAL CHARACTERISATION FACTORS BASED ON PARAMETERS DEFINED BY REACH<br>Carlos Ferreira, José Ribeiro, Fausto Freire                              |
| 119        | HUMAN HEALTH AND ENVIRONMENTAL IMPACTS IN SOYBIODIESEL PRODUCTION: LIMITS AND DIFFERENCES AMONG CURRENT INDICATORS<br>Francesco Spina, Jan Bart, Maria Francesca Milazzo  |

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| <b>9:00-11:00</b>                                      |                                                                                                                                                                                                                                                                          |
| <b>TA3</b>                                             | <b>BUILDINGS AND END-USES: Buildings 3</b>                                                                                                                                                                                                                               |
|                                                        | Room 2.4                                                                                                                                                                                                                                                                 |
| Chair                                                  | <i>José Costa</i>                                                                                                                                                                                                                                                        |
| 14                                                     | GREEN OFFICE OF THE UTFPR: FIRST GREEN BUILDING CERTIFIED IN A BRAZILIAN UNIVERSITY CAMPUS<br>Eloy Fassi Casagrande Junior, Bruno Kobiski, Libia Patricia P. Agudelo                                                                                                     |
| 31                                                     | RETROFITING OF ENERGY SYSTEM IN A PUBLIC SERVICES BUILDING<br>João R. Galvão, Licínio M. Moreira, Gonçalo F. Gaspar, Samuel C. Vindeirinho, Sérgio A. Leitão                                                                                                             |
| 59                                                     | A MULTI-INTERFACE SOFTWARE DESIGNED TO SHARE GEOMETRIES WITHIN DIFFERENT SIMULATION TOOLS<br>João Mariz Graça, João Bento, Helder Gonçalves                                                                                                                              |
| 141                                                    | COUPLING ENERGYPLUS AND GENOPT TO OPTIMIZE THE INCORPORATION OF PCM-DRYWALLS IN LIGHTWEIGHT STEEL FRAMED BUILDINGS<br>Nelson Soares, Adélio Gaspar, José J. Costa, Paulo Santos                                                                                          |
| 29                                                     | DYNAMIC SIMULATION AND ENERGY CERTIFICATION OF A SPANISH UNIVERSITY BUILDING USING DIFFERENT TOOLS<br>Francisco Javier Rey Martínez, Cristina Cano Herrador, Eloy Velasco Gómez, Manuel Andrés Chicote, Sergio L. González González                                      |
| <b>TA4</b>                                             |                                                                                                                                                                                                                                                                          |
| <b>SPECIAL SESSION: Sustainability of Food Systems</b> |                                                                                                                                                                                                                                                                          |
|                                                        | Room 2.5                                                                                                                                                                                                                                                                 |
| Chair                                                  | <i>Luis Arroja</i>                                                                                                                                                                                                                                                       |
| 75                                                     | ENVIRONMENTAL PERFORMANCE OF THE PORTUGUESE DAIRY SECTOR<br>Sara González-García, Erica G. Castanheira, Ana Cláudia Dias, Luis Arroja                                                                                                                                    |
| 76                                                     | LIFE CYCLE ASSESSMENT OF SARDINE CAPTURED BY PURSE SEINERS IN PORTUGAL<br>Sara Belo, Mafalda Silva, Ana Dias, Sara González-García, Luís Arroja                                                                                                                          |
| 102                                                    | LIFE-CYCLE GREENHOUSE GAS EMISSIONS OF PORTUGUESE OLIVE OIL<br>Filipa Figueiredo, Vlad Constantin Coroama, António Ramos, Arlindo Almeida, Elsa Ramalhosa, Érica Geraldine Castanheira, Fátima Peres, João Carneiro, José Alberto Pereira, Manuel Feliciano, Paulo Gomes |
| 121                                                    | CARBON FOOTPRINT OF APPLE AND PEAR: ORCHARDS, STORAGE AND DISTRIBUTION<br>Filipa Figueiredo, Érica G. Castanheira, Manuel Feliciano, M. Ângelo Rodrigues, António Peres, Filipe Maia, António Ramos, João Carneiro, Vlad C. Coroama, Fausto Freire                       |
| 132                                                    | LIFE-CYCLE ASSESSMENT OF SUNFLOWER ADDRESSING LAND USE CHANGE<br>Filipa Figueiredo, Érica Castanheira, Fausto Freire                                                                                                                                                     |
| <b>14:30-16:00</b>                                     |                                                                                                                                                                                                                                                                          |
| <b>TB1</b>                                             | <b>SUSTAINABILITY IN CITIES</b>                                                                                                                                                                                                                                          |
|                                                        | Room 2.2                                                                                                                                                                                                                                                                 |
| Chair                                                  | <i>João Coutinho-Rodrigues</i>                                                                                                                                                                                                                                           |
| 43                                                     | INVESTIGATING THE RELATIONSHIP BETWEEN PERSONAL VALUES AND ENERGY EFFICIENCY IN GRADUATES' ACCOMMODATION<br>Máté János Lőrincz, Sharon George, Joanna Wright, Zoe Robinson                                                                                               |
| 82                                                     | IMPROVING BY SUSTAINABILITY IN SPORT FACILITIES<br>Susana Lucas, Armando Silva-Afonso, Victor Ferreira                                                                                                                                                                   |
| 5                                                      | THE COMPLETE ECO-DESIGN AS THE FIRST STRATEGY TO REACH THE ZERO CO2 BUILDING: THE LUCIA BUILDING CASE IN SPAIN<br>Francisco Valbuena, M <sup>a</sup> Jesús González                                                                                                      |
| 89                                                     | BUILDING A BICYCLE SUSTAINABILITY MAP FOR COIMBRA<br>Nuno Ribeiro, Lino Tralhão, João Coutinho-Rodrigues, Nuno Sousa                                                                                                                                                     |

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| <b>14:30-16:00</b> |                                                                                                                                                                                                                               |
| <b>TB2</b>         | <b>SPECIAL SESSION: Biofuels &amp; Bioenergy 4</b>                                                                                                                                                                            |
|                    | Room 2.3                                                                                                                                                                                                                      |
| Chair              | <i>Stelios Rozakis</i>                                                                                                                                                                                                        |
| 136                | CAPTURING LAND USE CHANGE AND UNCERTAINTY IN THE LIFE-CYCLE MODELING OF SUGAR-BEET BASED BIOETHANOL<br><i>João Malça, Fausto Freire</i>                                                                                       |
| 120                | A MULTI-OBJECTIVE INPUT-OUTPUT MODEL TO ASSESS ECONOMIC-ENERGY-ENVIRONMENT INTERACTIONS IN THE BRAZILIAN ECONOMY AND SUGARCANE BIOETHANOL PRODUCTION<br><i>Ariovaldo L. Carvalho, Carlos Henggeler Antunes, Fausto Freire</i> |
| 93                 | FINANCIAL INCENTIVES FOR RISK-AVERSE FARMERS TO ESTABLISH PERENNIAL ENERGY CROPS IN POLAND<br><i>Panagioula Mathiou, Stelios Rozakis, Rafal Pudelko, Antoni Faber</i>                                                         |
| 115                | STRATEGIES FOR OPTIMIZATION OF THE DOMESTIC USED COOKING OIL TO BIODIESEL CHAIN. THE EUROPEAN PROJECT RECOIL<br><i>Orlando Paraíba, Teocharis Tsoutsos, Stavroula Tournaki, Dalila Antunes</i>                                |
| <b>TB3</b>         | <b>BUILDINGS AND END-USES: Buildings 4</b>                                                                                                                                                                                    |
|                    | Room 2.4                                                                                                                                                                                                                      |
| Chair              | <i>António Tadeu</i>                                                                                                                                                                                                          |
|                    | SUSTAINABLE BY NATURE<br><i>Carlos Manuel</i>                                                                                                                                                                                 |
| 46                 | POST OCCUPANCY EVALUATION: A COST AND TIME EFFECTIVE METHODOLOGY<br><i>Oliver Kinnane, Mark Dyer</i>                                                                                                                          |
| 24                 | GREEN ROOFS AND FACADES FROM A HUMAN DIMENSION PERSPECTIVE: RAISING COMMUNITY AWARENESS<br><i>Ricardo Almeida, Catarina Sabino, Divo Quintela</i>                                                                             |
| 26                 | AUTOMATION OF PASSIVE PROCESSES – INOVADOMUS: A METHODOLOGY ADAPTED TO A BUILDING REHABILITATION<br><i>Bruno Marques, Luís Pestana Baptista</i>                                                                               |
| <b>TB4</b>         | <b>SMART CITIES: Metering and Control</b>                                                                                                                                                                                     |
|                    | Room 2.5                                                                                                                                                                                                                      |
| Chair              | <i>Carlos Henggeler Antunes</i>                                                                                                                                                                                               |
| 40                 | CHARACTERIZATION OF SMART GRIDS IMPACTS ON SMART CITIES POWER SYSTEMS<br><i>Mário Couto, José Nuno Fidalgo</i>                                                                                                                |
| 101                | A MODEL FOR AN ENERGY BOX AGGREGATOR<br><i>Andreia M. Carreiro, Carlos Henggeler Antunes, Humberto Jorge</i>                                                                                                                  |
| 55                 | AN EVOLUTIONARY STRATEGY FOR MANAGING DOMESTIC LOADS<br><i>Ana Soares, Álvaro Gomes, Carlos Henggeler Antunes, Gonçalo Nunes</i>                                                                                              |
| 67                 | ANALYSING THE ROLE OF RESIDENTIAL ELECTRICITY STORAGE AND EVALUATING THE GRID IMPACT<br><i>João M. Santos, Pedro S. Moura, Aníbal T. de Almeida</i>                                                                           |

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| <b>16:30-18:45</b> |                                                                                                                                                                                                                                       |
| <b>TC1</b>         | <b>POLICY AND ASSESSMENT</b>                                                                                                                                                                                                          |
|                    | Room 2.2                                                                                                                                                                                                                              |
| Chair              | <i>Eduardo Barata</i>                                                                                                                                                                                                                 |
| 71                 | PREDICTION OF ENERGY CONSUMPTION IN CITIES DEPENDING ON NUMBER OF INHABITANTS AND BUILDING STOCK<br><i>Dalibor Vytlačil</i>                                                                                                           |
| 116                | A MULTI-OBJECTIVE MODEL FOR ASSESSING THE IMPACTS OF ENERGY EFFICIENCY MEASURES ON EMPLOYMENT AND GDP<br><i>Carla Oliveira, Carlos Henggeler Antunes</i>                                                                              |
| 54                 | EXTENSION OF THE SOCIAL MARKAL CONCEPT TO RESIDENTIAL HEATING IN TIMES ROMANIA COUNTRY MODEL<br><i>Roman Kanala, Emmanuel Fragnière, Francesco Moresino</i>                                                                           |
| 69                 | URBAN FORMS AND COMMUTING PATTERNS: METROPOLITAN MULTIREGIONAL INPUT-OUTPUT<br><i>João-Pedro Ferreira, Pedro Ramos, Luis Cruz, Eduardo Barata</i>                                                                                     |
| 19                 | ECONOMIC GROWTH AND USEFUL WORK<br><i>João Santos, Rui B. Mota, Tânia Sousa, Tiago Domingos</i>                                                                                                                                       |
| <b>TC2</b>         | <b>SPECIAL SESSION: Biofuels &amp; Bioenergy 5</b>                                                                                                                                                                                    |
|                    | Room 2.3                                                                                                                                                                                                                              |
| Chair              | <i>João Malça</i>                                                                                                                                                                                                                     |
| 98                 | ANALYSIS OF THE POLLUTANT GAS EMISSIONS IN HEAVY VEHICLES FUELLED WITH BIODIESEL AND CNG (COMPRESSED NATURAL GAS)<br><i>Ronaldo S. Costa, Bruno B. Stein, Cristiane S. Abreu, Marcelo B. Bastos, Marcus Seferin, Carlos A. Santos</i> |
| 95                 | ASSESSMENT ON THE ENVIRONMENTAL EFFECT OF ADDING SOYBEAN ETHYLIC BIODIESEL TO FOSSIL DIESEL FOR PASSENGER'S TRANSPORTATION IN URBAN CENTER<br><i>Alex Rodrigues Nogueira, Luiz Kulay, Gil Anderi da Silva</i>                         |
| 57                 | BIOCONVERSION OF RESIDUAL BIOMASS FROM THE CENTRE OF PORTUGAL INTO ENERGY AND CHEMICALS<br><i>Jorge M. S. Rocha, Cátia V. T. Mendes, M. Graça V. S. Carvalho</i>                                                                      |
| 66                 | EFFECTS ON PERFORMANCE, CONSUMPTION AND EMISSIONS OF USING BIODIESEL IN TURBO DIRECT INJECTION DIESEL ENGINE<br><i>Luís M.V. Serrano, Pedro Jorge, Vasco Coelho, Manuel C.G. da Silva</i>                                             |
| 81                 | THE USE OF IONIC LIQUIDS (IL) FOR THE PRODUCTION OF BIODIESEL FROM COTTONSEED OILS<br><i>Nieves María del Carmen Talavera Prieto, Abel Gomes Martins Ferreira, António Alberto Torres Garcia Portugal</i>                             |
| 130                | AGRO-FOOD INDUSTRY RESIDUES FOR BIODIESEL PRODUCTION: BIOFFA PROJECT<br><i>Paula Costa, Rafał Bogel-Lukasik, Paula C. Passarinho, Ana C. Oliveira</i>                                                                                 |

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| <b>16:30-18:45</b> |                                                                                                                                                                                                            |
| <b>TC3</b>         | <b>BUILDINGS AND END-USES: Buildings 5</b>                                                                                                                                                                 |
|                    | Room 2.4                                                                                                                                                                                                   |
| Chair              | <i>Oliver Kinnane</i>                                                                                                                                                                                      |
| 63                 | MEASUREMENT OF UPWARD LIGHT FROM CITY CAUSING LIGHT POLLUTION AND ENERGY WASTE<br>Toshie Iwata, Yusuke Tsuyuki, Daisuke Ito, Kenta Tsuda                                                                   |
| 39                 | INTEGRATED ANALYSIS OF BUILDING AND USERS: A WAY TO REDUCE ENERGY CONSUMPTION<br>Anarrita B. Buoro, Manoel G. Silva, Fernando C. Spalding, Alberto Hernandez, Marco A. Saidel                              |
| 117                | DETECTION OF ROUTINES AND ANOMALIES IN HOUSEHOLD ENERGY CONSUMPTION<br>João A. Sousa, Andreia M. Carreiro, João Cardoso, Soraia Rocha                                                                      |
| 58                 | DAYLIGHT AMBIENT LIGHTING SYSTEM WITH GLARELESS BLIND CONTROL FOR SUSTAINABLE OFFICE LIGHTING<br>Koto Mihashi, Tomoko Taniguchi, Toshie Iwata                                                              |
| 36                 | CONTROL CRITERIA OF ELECTROCHROMIC GLASSES AND ENERGY SAVINGS IN DIFFERENT BUILDING TYPOLOGIES<br>Paulo Tavares, Hermano Bernardo, Adélio Gaspar, António Martins                                          |
| 30                 | END USE ENERGY EFFICIENCY IN RESIDENTIAL BUILDINGS: MODELING DECENTRALIZED SOLUTIONS FOR THE ENERGY SUPPLY OF PRIVATE HOUSEHOLDS<br>Maria Gröger, Mathias Koepke, Thomas Bruckner                          |
| <b>TC4</b>         | <b>ENERGY EFFICIENCY IN BUILDINGS AND INDUSTRY</b>                                                                                                                                                         |
|                    | Room 2.5                                                                                                                                                                                                   |
| Chair              | <i>Adélio Gaspar</i>                                                                                                                                                                                       |
| 15                 | WATER-LOOP HEAT PUMP AIR CONDITIONING SYSTEM FOR THE IMPROVEMENT OF THE END-USE ENERGY EFFICIENCY AND INDOOR CLIMATE<br>Boriss Petrovs, Namejs Zeltins, Viktors Zebergs, Andrejs Semenako                  |
| 65                 | NUMERICAL OPTIMIZATION OF BEST PLACE FOR INSTALLING RADIATOR IN PURSUIT OF INCREASING EFFICIENCY<br>Omid Barati Farimani, Mohammad Ali Gerayeli, Massoud Kheirkhah                                         |
| 100                | INDEPENDENT HEATING IN MULTI-FAMILY DWELLINGS, OR HOW AN ENERGY MANAGEMENT MEASURE MAY LEAD TO OVERCONSUMPTION<br>John Gelegenis, Danae Diakoulaki, George Giannakidis, Helen Lampropoulou, Douglas Harris |
| 106                | INFLUENCE OF THE VENTILATION STRATEGY AND OPERATION ON THE ENERGY CONSUMPTION OF NON-RESIDENTIAL BUILDINGS IN MODERATE CLIMATES<br>António M. Raimundo, Octávio N. Cardoso, Sara C. Francisco              |
| 42                 | OPTIMISING HEAT RECOVERY BY INTEGRATING INDUSTRIAL HEAT PUMPS WITH OTHER ENERGY SYSTEMS<br>Kenneth Hoffmann                                                                                                |
| 38                 | MISSING THE "SPARK GAP": FEASIBILITY STUDY FOR A TRIGENERATION SYSTEM IN A FISH FREEZING INDUSTRY IN PORTUGAL<br>Vitor Ferreira, José Ribeiro, Adélio Gaspar, José Costa, Avelino Oliveira                 |