

PROGRAM

6th International Conference on Energy and Environment

Bringing together
Engineering and Economics



June, 2024

Welcome Message from the Conference Chair



It is my great pleasure to welcome you to the 6th International Conference on Energy & Environment: Bringing together Engineering and Economics (ICEE 2024).

The conference is organized by the ALGORITMI Research Center of the School of Engineering, University of Minho, and the CEF.UP Research Center of the School of Economics and Management, University of Porto.

This year, the Conference will take place at the School of Engineering, University of Minho, in Guimarães, Portugal, on the 6th and 7th of June, 2024.

Get ready to explore cutting-edge insights, innovative solutions, and interdisciplinary dialogues that are shaping the future of energy and the environment. Don't miss this opportunity to connect, learn, and inspire change at ICEE 2024.

We are looking forward to meeting you in Guimarães in June 2024!

Paula Ferreira
Conference Chair

Organized by:



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DAY 1, THURSDAY, JUNE 06, 2024

08h30-12h30
and
14h00-16h30

REGISTRATION & HELPDESK

Session A Renewable Energies Building 2, Room 0.24

Chair: José Gabriel O. Pinto

115 - HOW THE GROWTH OF RENEWABLE ENERGY CAN CONTRIBUTE TO A COMPREHENSIVE SOCIO-ECONOMIC AND ENVIRONMENTAL APPROACH

Palloma Silva, Roberta Amaral, Patricia Fortes, Isabel Soares

A1- ASSESSMENT OF PUBLIC ATTITUDE TOWARD WIND ENERGY DEVELOPMENT THROUGH SOCIAL MEDIA ANALYSIS

Ali Danesh, Shima Yazdanmehr

194 - STRATEGIC ENERGY RESERVES REQUIREMENTS IN THE PORTUGUESE POWER SYSTEM WITH LARGE-SCALE DEPLOYMENT OF VARIABLE RENEWABLE ENERGY SOURCES

Luis Carvalho, Alvaro Gomes, Fernando Martins

302 - ROBUST PRIORITIZATION OF RENEWABLE HYDROGEN SUPPLY CHAIN CONFIGURATION ALTERNATIVES CONSIDERING RISK IN CRITERIA AND WEIGHTINGS. YOVANY ARLEY ERAZO-CIFUENTES, JUAN PABLO OREJUELA, DIEGO F. MANOTAS-DUQUE

104 - UNDERSTANDING THE IMPLEMENTATION OF RENEWABLE ENERGY COMMUNITIES IN PORTUGAL – HURDLES AND BENEFITS. MICHEL DA SILVEIRA CARDARETTI, SUSANA SILVA

Session B Climate Change Building 2, Room 1.42

Chair: Sonia Cristina A. Neves

133 - TECHNICAL AND ECONOMIC RISK OF POST-COMBUSTION CARBON CAPTURE AND STORAGE SYSTEMS INTEGRATED INTO CEMENT PLANTS

Caterina Brandoni, Sotiris Kaldis, Angelos Lappas, Colin Snape, Mohammad Jaffar, Angela Rolfe, Neil J. Hewitt, Juan Carlos Martinez, Beata Lysiak, Ye Huang

A2 - AVIATION AND THE EU ETS: A DATA-DRIVEN APPROACH FOR CARBON PRICE PREDICTION. RICCARDO COLANTUONO, RICARDO FRISO, MASSIMILIANO MAZZANTI, MICHELE PINELLI

Riccardo Colantuono, Ricardo Friso, Massimiliano Mazzanti, Michele Pinelli

257 - IMPACT OF CLIMATE INVESTMENT POLICIES ON CITIZENS' PERCEPTION OF POLLUTION DAMAGE IN THE EUROPEAN UNION. VÍTOR MIGUEL RIBEIRO, GUSTAVO SOUTINHO, ISABEL SOARES

Vitor Miguel Ribeiro, Gustavo Soutinho, Isabel Soares

191 - THE EVOLUTION OF CARBON CAPTURE, UTILIZATION AND STORAGE: INNOVATIONS, CHALLENGES, AND PATHWAYS TO A LOW-CARBON FUTURE

William Monteiro, Patricia Pereira da Silva, Nelson Soares, Catarina R. Matos

220 - THE ROLE OF COST SAVING ON DEMAND RESPONSE ACCEPTANCE IN HOUSEHOLD ELECTRICITY CONSUMER

Sara Golmaryami, Paula Ferreira, Manuel Lopes Nunes

Session C Natural Resources and Materials Building 2, Room 1.43

Chair: Israel Dunmade

347 – GREEN INFRASTRUCTURES IN SOCIAL HOUSING IN BRAZIL: A SYSTEMATIC LITERATURE REVIEW

Bruno Noronha Rodrigues, Eloisa Dezen-Kempter, Vitor Eduardo Molina Junior, Felipe Benavente Canteras

131 - CAN PORTUGAL ENSURE SELF-SUFFICIENCY IN LITHIUM FOR NATIONAL MOBILITY BY 2050?

Bernardo Teixeira, Miguel Centeno Brito, Antonio Mateus

203 - BIOGAS SECTOR POTENTIAL IN ISLANDS ENERGETIC SYSTEMS: CRETE AS THE STUDY CASE

Jacek Dach, Stelios Rozakis, Patrycja Pochwatka, Jakub Mazurkiewicz, Alina Kowalczyk-Juško, Petros Gikas, Damian Janczak, Wojciech Czekala, Wei Qiao

62 - IDENTIFICATION OF ENVIRONMENTAL IMPACTS FROM COOPER USAGE IN SOLAR AND OFFSHORE WIND ENERGY SYSTEMS

Thashmika Bandara, Dasantha Wickramanayake, Mahinsasa Rathnayake, Veselin Rakocevic

206 - CYANOBACTERIAL BIOMASS AS A NATURAL AND SUSTAINABLE AGRICULTURAL FERTILIZER

pimente Reimão, Diogo Lameirinhas, Liliana Almeida, Vitor Vasconcelos, Alexandre Campos, Marisa Freitas

Session D Sustainable Devop. and Tech. Building 2, Room 1.50

Chair: Antonio Amaral

214 – ACCOUNTING FOR SUSTAINABILITY IMPACTS IN PROJECTS: A SYSTEMATIC REVIEW. FILIPE MACHADO, ANTÓNIO AMARAL, NELSON DUARTE, MADALENA ARAÚJO

Filipe Machado, António Amaral, Nelson Duarte, Madalena Araújo

283 - STRATEGIC ZONING FOR WIND ENERGY IN PORTUGAL

Pilar Díaz-Cuevas, Paula Ferreira, Héder Lopes, Belén Pérez-Pérez

348 - THE IMPACT OF LAND COVER ON SURFACE TEMPERATURE REGULATING SERVICE PROVIDED BY GREEN INFRASTRUCTURE: A CASE STUDY IN CAMPINAS, BRAZIL. ANA LAURA FRAGOSO FAVORETI, JOSÉ WELLINGTON ALBUQUERQUE, BRUNO NORONHA RODRIGUES, FELIPE BENAVENTE CANTERAS, VÍTOR EDUARDO MOLINA JUNIOR

Ana Laura Fragoso Favoreti, José Wellington Albuquerque, Bruno Noronha Rodrigues, Felipe Benavente Canteras, Vitor Eduardo Molina Junior

111 - ANALYSIS OF THE BARRIERS TO THE ENERGY TRANSITION JOURNEY IN DEVELOPING COUNTRIES

Salvador Pereira, Cristóvão Silva, Luis Miguel D. F. Ferreira

296 - RESOURCE-EFFICIENT REGIMES FOR GROWING VEGETABLE CROPS IN GREENHOUSE COMPLEXES

Alla Dudnyk, Natalia Pasichnyk, Kamil Witaszek, Wojciech Czekala

09h15
-
10h45

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10h45-11h15

COFFEE BREAK

WELCOME SESSION

Room: Auditório Nobre

Dra. Adelina Pinto

Municipality of Guimarães, Laboratory of Landscape

Prof. Isabel Soares

School of Economics and Management, University of Porto

Prof. Raul Figueiro

School of Engineering, University of Minho

Prof. José Machado

Centro ALGORITMI, University of Minho

Prof. Paulo Sampaio

Department of Production and Systems, University of Minho

Prof. Paula Ferreira

Chair of ICEE 2024

11h15-11h45

11h50-12h30

KEYNOTE SPEAKER

Room: Auditório Nobre

Henrik Lund

Aalborg University, Denmark

12h30-14h00

LUNCH BREAK

14h00-14h40

KEYNOTE SPEAKER

Room: Auditório Nobre

Ales Fiala

European Research Executive Agency

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**Special Session
Wind Energy
Building 2, Room 0.24**

Chair: Cristina Madrid

213 - MODELING ENERGY SCENARIOS FOR THE IMPLEMENTATION OF WIND ENERGY FACILITIES: R3EA PROJECT
Max López-Maciél, Fátima Lima, Edimar Ramalho, André Oliveira, José Villar, Mara Madaleno, Marta Ferreira Dias, Mónica Meireles, Margarita Robaina

A3 - A REVIEW OF JOB CREATION ESTIMATIONS IN WIND POWER INDUSTRY
Luis Ramirez Camargo and Sam Klap

340 - IS EU'S WIND POWER FLEET GREEN FOR ALL? EXPLORING REGIONALISED SOCIO-ENVIRONMENTAL IMPACTS
Miquel Sierra, Alexander de Tomás, Laura À. Pérez Sánchez, Cristina Madrid López

308 - COMMUNITY-LED LOCAL DEVELOPMENT – SLOGAN OR PROGRAM FOR THE DEPLOYMENT OF WIND POWER PROJECTS? Jens Lowitzsch, Monika Bucha, Ranim Nassar

A4 – LEVELIZED COST OF ENERGY AND WAKE EFFECT ACROSS DIVERSE DESIGNS OF FLOATING OFFSHORE WIND FARMS WITHIN THE AREAS SPECIFIED BY THE SPANISH MARITIME SPATIAL PLANNING. Brieuc Thomas, Xurxo Costoya, Maite de Castro, Beatriz Arguilé Pérez, Moncho Gómez-Gesteira

**Session E
Circular Economy
Building 2, Room 1.42**

Chair: Caterina Brandoni

300 – CLOSING THE LOOP: THE INFLUENCE OF RECYCLING OF ETFE FOILS WITHIN THE LIFE CYCLE ASSESSMENT (LCA) APPROACH
Ketankumar Solanki, Torsten Balster, Carol Monticelli, Miguel Ángel Padilla Marcos, Carl Maywald

176 - CHARTING A SUSTAINABLE FUTURE: BASIC PARAMETERS OF CIRCULAR ECONOMY AND BIOCOMPOSITE INNOVATIONS IN KOSOVO'S CONSTRUCTION INDUSTRY
Arlinda Rexhepi Ademi, Festina Avdija Dema, Naser Kabashi

207 - ASSESSMENT OF CIRCULAR SOLUTIONS FOR SOLAR PHOTOVOLTAIC WASTE IN PORTUGAL
Marcela Jorio, António Amaral, Paula Ferreira

322 - A SOCIAL LIFECYCLE IMPACTS ASSESSMENT OF IMPLEMENTING A CIRCULAR ECONOMY SYSTEM IN THE ALBERTA FURNITURE INDUSTRY
Israel Dunmade

196 - CIRCULARITY IN WASTE MANAGEMENT SYSTEM: AN ASSESSMENT OF THE RECYCLING RATE PERFORMANCE OF DEVELOPING COUNTRIES
Rafaela Vital Caetano, António Cardoso Marques, Tiago Lopes Afonso

**Session F
Energy Economics
Building 2, Room 1.43**

Chair: Luis Miguel D. F. Ferreira

215 - FINANCIAL, ENERGY AND ENVIRONMENTAL INDICATOR FOR COMPANIES
Maryam Hajishams, Sh. Rasekh, Margarita Robaina, J.C.O. Matias

A5 – HOW TO OVERCOME CONSUMER'S ELECTRICITY CONSUMPTION INDIFFERENCE? A MICROECONOMIC APPROACH
Diogo Santos Pereira, Sónia Almeida Neves, António Cardoso Marques

287 - ANALYSIS OF THE DIFFERENTIAL EFFECT OF THE DETERMINANTS OF URBAN AND RURAL ENERGY POVERTY: EVIDENCE FROM 36 AFRICAN COUNTRIES
José Venal, Vitor Moutinho, Ernesto Ferreira

195 - OPTIMIZING CPPAs IN THE RENEWABLE ENERGY MARKET: CONTRACT PERFORMANCE ASSESSMENT
Francisco Simões, Carla Henriques, Nuno Carvalho Figueiredo, Patrícia Pereira da Silva

199 - ANALYSIS OF FACTORS AFFECTING THE EFFICIENCY OF BIOGAS PLANTS USING ARTIFICIAL INTELLIGENCE TECHNIQUES
Patrycja Pochwatka, Andrzej Lewicki, Alina Kowalczyk-Juško, Wojciech Czekala, Andrzej Mazur, Jacek Dach

**Session G
Energy Efficiency
Building 2, Room 1.50**

Chair: Vítor Monteiro

297 - NAVIGATING THE SUSTAINABLE SUPPLY CHAIN IN MARINE RENEWABLES ENERGIES: CURRENT PRACTICES, CHALLENGES, AND FUTURE DIRECTIONS
Seyedasghar Bayatghiasi, João Carlos de Oliveira Matias, Mohamadreza Kamali, Fátima L. Alves

256 - THE ENERGY EFFICIENCY ANALYSIS OF SORGHUM WASTE BIOMASS GROWN IN A TEMPERATE CLIMATE
Wojciech Czekala, Jakub Frankowski, Dominika Sieracka, Patrycja Pochwatka, Alina Kowalczyk-Juško, Aleksandra Zielińska, Kamil Witaszek, Jacek Dach

290 - CYANOBACTERIAL AND MICROALGAL NATURAL PIGMENTS: PROMISING ATTRIBUTES FOR SUSTAINABLE COLORING APPLICATIONS
Mariana Reimão, Liliana Almeida, Manuela Vieira da Silva, Vítor Vasconcelos, Nádia Eusébio, Marisa Freitas

309 - ECONOMIC AND EFFICIENCY ANALYSIS OF A NEW CONVERTER TOPOLOGY FOR MULTIFUNCTIONAL AC/DC HYBRID GRIDS
Martim Machado, Sergio Coelho, Jose Cunha, Vítor Monteiro, Joao L. Afonso

313 - REMOTE IoT IN DTN CONTEXT – IMPACT ON ENVIRONMENT MONITORING AND AGRICULTURE
Eusebio Chicapa, Joaquim Macedo

14h45
-
16h00

16h00-16h20

COFFEE BREAK

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Session H
Sustainable Transport
Building 2, Room 0.24

Chair: Felipe Benavente Canteras

277 – OPTIMIZING FUEL EFFICIENCY IN NON-EMERGENCY PATIENT TRANSPORTATION SERVICES FOR SUSTAINABLE HEALTHCARE IN PORTUGAL

José António Oliveira, António Vieira, Manuel Figueiredo, Luís Dias, Guilherme Pereira

212 - WIND ENERGY INTEGRATION FOR SUSTAINABLE TRANSPORTATION: A TECHNICAL-ECONOMIC ANALYSIS FOR METROPOLITANO DE LISBOA

Diogo Esteves, Fernando Neto, Nuno Duarte

201 - A SYSTEMS APPROACH TO ENERGY JUSTICE: THE CASE OF ELECTRIC VEHICLE ADOPTION

Alaize Dall-Orsoletta, Rudolph Oosthuizen, Géremi Gilson Dranka, Paula Ferreira

259 - DEVELOPMENT OF A DECISION SUPPORT SYSTEM FOR LOGISTICAL CHALLENGES IN HOME HEALTH CARE TEAMS IN BRAZIL

William Emiliano, Thalyta Cristina Mansano-Schlosser, Luiz Henrique Ferranda

Session I
Life Cycle Analysis and Impact Assessment
Building 2, Room 1.42

Chair: Diogo A. Dos Santos Pereira

79 – THE ROLE OF DISPLACED ENVIRONMENTAL IMPACTS IN MATERIAL CRITICALLY ANALYSIS. Alejandro C. Finkelstein, Jesús Ramos Martín, Emilio Padilla Rosa, Yoana Chavdarova Kisyova, Cristina Madrid López

303 - LOCAL GOVERNANCE AND RENEWABLE ENERGY PROJECTS: LOCAL IMPACT PERCEPTION

Fátima Lima, Margarita Robaina, José Vilar; Mara Madaleno, Marta Ferreira Dias, Mónica Meireles, Anabela Botelho, Celeste Varum, Peter Roebeling, Edimar Ramalho, Max López-Maciel, André Oliveira

250 - WHAT'S NEXT? BEYOND THE IMPACT IN OPERATIONAL PHASE OF WIND FARMS. A CASE OF STUDY IN SOUTHERN SPAIN. Patricia Márquez-Sobrino, Belén Pérez-Pérez, Pilar Díaz-Cuevas

252 - ENVIRONMENTAL ANALYSIS OF MUNICIPAL SOLID WASTE MANAGEMENT SCENARIOS IN THE ABC REGION OF SAO PAULO STATE, BRAZIL

Ana Carolina Jimenez, Reynaldo Palacios Bereche, Maria Luiza Grillo Renó, Sílvia Azucena Nebra

Session J
Natural Resources and Materials
Building 2, Room 1.43

Chair: Laura Perez Sanchez

198 – SUBSTRATES USED IN POLISH BIOGAS PLANTS: ENERGETIC EFFICIENCY, RENTABILITY AND FUTURE PERSPECTIVES.

Alina Kowalczyk-Juško, Jacek Dach, Patrycja Pochwatka, Wojciech Czekala, Wolfgang Merkle, Andrzej Mazur, Jakub Pulka

A6 – DO RIVERS WITH HIGHER ECOLOGICAL STATUS HAVE LOWER MICROPLASTIC ABUNDANCE?

Andreia Ribeiro, Carlos Gravato, João Cardoso, Carlos A. Ribeiro, Maria Natividade Vieira, Carolina Rodrigues

202 - ENABLING INDUSTRIAL WASTE HEAT RECOVERY WITH THERMOELECTRICS USING SUITABLE MATERIALS, GEOMETRIES AND HEAT TRANSFER STRATEGIES

Francisco P. Brito, Diogo Oliveira, Jorge Ortega, Tiago Crespim, Ana Cristina Ferreira, A. P. Gonçalves, Jorge Martins, Theodora Kyratsi, Oscar Carvalho

326 - EMPOWERING CITIZENS TO TACKLE INVASIVE ALIEN SPECIES IN URBAN CITIES.

Ana Catarina Teixeira, Francisco Carvalho, Carolina Rodrigues, Carlos A Ribeiro

Session K
Energy Production, Management and Storage
Building 2, Room 1.50

Chair: Dominik Grybos

109 – INTEGRATED DESIGN STRATEGIES FOR HIGH-PERFORMANCE MICROCAES. Jacek Leszczynski, Jan Markowski, Dominik Grybos

130 - CRITERIA SELECTION AND RANKING OF DIGITAL TECHNOLOGIES FOR ENERGY APPLICATIONS

Breno Pallu, Nathalia Monteiro, Flavio Trojan, Mauro Lizot, Sergio Gouvea da Costa, Edson Pinheiro de Lima, Fernando Deschamps

328 - EVALUATING RETROFIT MEASURES TO ACHIEVE THE ENERGY GOALS OF GUIMARÃES

Jaime Cevallos-Sierra, Ricardo Gomes, Carlos Santos-Silva

331 - EXAMINING THE TECHNOLOGICAL AND ENVIRONMENTAL IMPACT OF SOLID-STATE TRANSFORMERS IN SMART GRIDS AND MICROGRIDS

Sergio Coelho, Jose Cunha, Vitor Monteiro, Joao L. Afonso

16h20
-
17h30

19h30

CONFERENCE DINNER
Hotel de Guimarães

Rua Eduardo Manuel de Almeida, 202, 4810-440, Guimarães

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DAY 2, FRIDAY, JUNE 07, 2024

08h30-12h30
and
14h00-15h00

REGISTRATION & HELPDESK

Session L
Energy Policy
Building 2, Room 0.24

Chair: Yessenia Martinez Ruiz

268 - LINKING CIRCULAR ECONOMY PRACTICES TO SUSTAINABLE DEVELOPMENT GOALS: A MULTI-CRITERIA DECISION-MAKING APPROACH

Ana Rita Fernandes, Vanessa S. M. Magalhães, Luís M. D. F. Ferreira

90 - A FRESH LOOK ON VERTICALLY DIFFERENTIATED PEER-TO-PEER ELECTRICITY TRADING PLATFORMS WITH AND WITHOUT SERVICE CUSTOMIZATION. Vitor Miguel Ribeiro, Gustavo Soutinho, Isabel Soares

275 - DIVERSIFICATION IN ENERGY PLANNING THROUGH MODERN PORTFOLIO THEORY: A REVIEW. Javier Afonso-Arevalo, Fernando de Llano Paz

21 - ENERGY USE IN THE AGRICULTURAL SECTOR WORLDWIDE AND MACHINE LEARNING APPROACHES

Vítor João Pereira Domingues Martinho

Session M
Renewable Energies
Building 2, Room 1.42

Chair: Francisco Carriusca P. De Brito

A8 - INTEGRATION OF MICROCAES WITH DISTRIBUTED RENEWABLES IN A MICROGRID. Jan Markowski, Paula Ferreira, Géremi Gilson Dranka, Jacek Leszczyński

135 - RISK MANAGEMENT IN RENEWABLE ENERGY POWER PURCHASE AGREEMENTS - A BIBLIOGRAPHIC REVIEW. Andrews Danquah, Pedro André Cerqueira, Patrícia Pereira da Silva

222 - A MULTIDIMENSIONAL AUDIT FRAMEWORK FOR RURAL PHOTOVOLTAIC SYSTEMS IN BRAZIL

Géremi Gilson Dranka, Roberto Candido, Jorge Assade Leludak, Álvaro Alencar, Isadora Zanella Zardo, Rodrigo Manoel Aguiar Ferreira, Rafael Solheid Jacobs

A7 - ANALYSING THE ENERGY AND ECONOMIC EFFICIENCY OF WAVE ENERGY CONVERTERS IN NORTHWESTERN IBERIAN PENINSULA UNDER NEAR FUTURE CONDITIONS

B. Arguilé-Pérez, M. de Castro, X. Costoya, A. S. Ribeiro, G. Lavidas, P. Carracedo, N. G. de Castro, B. Thomas, M. Gómez-Gesteira

Session N
Sustainable Development
Building 2, Room 1.43

Chair: Maria Del Pilar D. Cuevas

219 - THE NAVAL INDUSTRY'S CONTRIBUTION TO SUSTAINABLE DEVELOPMENT IN ANGOLA

Josério da Silva, Jorge Cunha, Paula Ferreira

105 - DESIGNING EFFICIENT TECHNOLOGY PORTFOLIOS FROM AN ENVIRONMENTAL COST-RISK PERSPECTIVE USING MPT AND LCA RESULTS

Paulino Martínez-Fernández, Juan José Cartelle Barros, Fernando de Llano-Paz

298 - INTEGRATING NARRATIVES IN ENERGY MODELLING: SOCIAL ASPECTS OF THE ENERGY TRANSITION IN SPAIN

Yoana Kisyoova, María Cassinello Toscano, Cristina Pérez Sánchez, Diana Süsler, Johan Lilliestam, Cristina Madrid López

129 - VALUE-STREAM MAPPING ADAPTED TO SUPPORT PROCESS ANALYSIS AND REDUCTION OF BOTTLENECKS IN SMALL GRAPHIC BUSINESS. Shirley Suellen Thesari,

Mauro Lizot, Flavio Trojan, Renato Tonello, Sérgio Gouvêa da Costa, Paulo Afonso

Session O
Climate Change
Building 2, Room 1.50

Chair: Wojciech Czekala

137 - A MARKOV-CHAIN MODEL FOR ASSESNG HEATWAVES AND DROUGHTS IN IBERIAN PENINSULA

Ebenezer Takyi, Pedro G. Lind, Ana Russo

189 - CARBON MARKETS: ASSESSING PROGRESS, CHALLENGES AND PERSPECTIVES

William Monteiro, Mateus Gomes de Siqueira e Salles, Ana Luiza Ferreira Manzo, Nuno Carvalho Figueiredo

223 - ASSESSING AGRICULTURAL BIOMASS POTENTIAL IN THE KURDISTAN REGION OF IRAQ

Balen D. M. Agha, José António Teixeira, Maria Alcina Pereira, Paula Ferreira

231 - PUBLIC POLICIES TO PROMOTE A JUST ENERGY TRANSITION IN THE BRAZILIAN ELECTRICAL SECTOR

Ana Carolina Chaves, Lorraine Câmara, Leonardo Gonçalves, Cristina Rosa, Rubens Rosental

09h00
-
10h10

10h10-10h35

COFFEE BREAK

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10h35-11h15

KEYNOTE SPEAKER
Room: Building 2, 0.24

João Gonçalo Maciel
NEW – Centre for New Energy Technology

Session P
Energy Economics
Building 2, Room 0.24

Chair: Camilo A. Mican Rincon

Session Q
Energy Production, Management and Storage
Building 2, Room 1.42

Chair: Jacek Dach

Session R
Sustainable Technologies
Building 2, Room 1.43

Chair: Fernando De Llano Paz

Session S
Sustainable Transport
Building 2, Room 1.50

Chair: William Machado Emiliano

200 – STRUCTURAL DESIGN FOR THE EVALUATION FRAMEWORK OF DEVELOPMENTS PROJECTS
Thomaz Fagá, Jorge Cunha

22 - ASSESSMENT OF EMISSIONS FROM ENERGY USE IN AGRICULTURE USING MACHINE LEARNING METHODOLOGIES
Vítor João Pereira Domingues Martinho

265 - HOW COULD SOARING ELECTRICITY PRICES BE A CONSEQUENCE OF DISRUPTIVE ENERGY TRANSITION MEASURES? AN ANALYSIS OF THE PORTUGUESE ELECTRICITY SYSTEM
Daniela Pereira Macedo, António Cardoso Marques

343 - RELEVANT INDICATORS FOR A DIVERSITY OF STAKEHOLDERS: THE NEED FOR MULTI-SCALE SOCIO-ENVIRONMENTAL ASSESSMENTS OF THE ENERGY TRANSITION
Samuel Marot-Robinson, Cristina Madrid-López, Laura Pérez-Sanchez

136 - UTILISATION OF LIGNOCELLULOSIC BIOMASS FROM TOMATO PRODUCTION FOR ENERGY PURPOSES

Kamil Witaszek, Marcin Herkowiak, Alla Dudnyk, Viktoriia Chubur, Wojciech Czekala, Hynek Roubík

217 - CHALLENGES AND PROSPECTS OF ELECTRICITY GENERATION AND USAGE IN SUB-SAHARAN AFRICA
Budareld Mbuma, Géremi Dranka, Paula Ferreira

120 - EXTRACTING KEY BEHAVIORAL HOUSEHOLD ASPECTS WITH FEATURE SELECTION TECHNIQUES TO IDENTIFY OUT-PROFILED ENERGY CONSUMERS
Lucas Henriques, Felipe Prata, Cecilia Castro

138 - TECHNO-ECONOMIC ASSESSMENT OF BATTERY ENERGY STORAGE SYSTEMS IN RENEWABLE ENERGY COMMUNITIES USING A MIXED INTEGER PROGRAMMING INVESTMENT DECISION MODEL. Sérgio Perinhas, Jorge Sousa, Carla Viveiros, Filipe Barata

92 – CONTROL STRATEGY OF STABLE DISCHARGE OF MECHANICAL ENERGY STORAGE THROUGH PISTON EXPANDER IN MICRO COMPRESSED AIR ENERGY STORAGE. Dominik Gryboś, Piotr Kubala, Jan Markowski, Jacek Leszczyński

142 - OPTIMAL SELF-SCHEDULING OF HOME APPLIANCES AND ELECTRICAL VEHICLES WITH HOME ENERGY MANAGEMENT SYSTEM
Farideh Ghanavati, Gerardo J. Osório, João C. O. Matias

301 - FEASIBILITY ASSESSMENT OF INTRODUCING SOLAR PHOTOVOLTAIC MODULES IN BUILDING FACADES
J.G. Pinto, L. A. M. Barros, L.M. Goncalves, Lucas Lopes, Daniel Reis, M. Almeida

193 - THE ROLE OF INDUSTRIAL CLUSTERS IN THE DEVELOPMENT OF THE HYDROGEN ECONOMY: A COMPARISON BETWEEN UNITED STATES, EUROPE, AUSTRALIA
Kalyne Brito, Ana Carolina Chaves, Thereza Aquino, Luiza Masseno, Caroline Chantre

344 – DEMAND FLEXIBILITY FROM ELECTROLYSERS AND ELECTRIC VEHICLES: IMPACT ASSESSMENT ON RENEWABLES CURTAILMENT, BACKUP CAPACITY, STORAGE, AND DISPATCHABLE GENERATION WITH APPLICATION TO THE PORTUGUESE POWER SYSTEM
Jorge Sousa, João Lagarto, Filipe Barata,

197 - IS ELECTRIC MOBILITY EFFECTIVE IN SMOOTHING THE LOAD DIAGRAM? EVIDENCE FROM THE EUROPE
Sónia Almeida Neves, Diogo Santos Pereira, António Cardoso Marques

221 – MATERIAL FLOW ANALYSIS APPLIED TO LITHIUM-ION BATTERIES OF ELECTRICAL VEHICLES IN THE CZECH REPUBLIC WITH A CIRCULAR ECONOMY PERSPECTIVE
Francisco Mikus, Marcela Jorio, Paula Ferreira

216 - THE FUTURE OF ELECTRIC VEHICLES BATTERIES: PATHWAYS, CHALLENGES AND OPPORTUNITIES
Anna Luiza Souza Vieira Santos, Wellington Alves, Paula Ferreira

11h20
-
12h30

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Session T
Modelling and Planning
Building 2, Room 1.50

Chair: Geremi Dranka

346 - LCOE AT RISK FOR PV SOLAR FARMS IN DIFFERENT LOCATIONS IN COLOMBIA

Yessenia Martínez-Ruiz, Camilo Micán, Diego Fernando Manotas-Duque

A9 - NUMERICAL SIMULATION OF CAPILLARY RISE IN MILLIMETRIC CYLINDRICAL TUBES

Shivam Sharma, Filipe S. Silva, Nuno Dourado, Susana O. Catarino

312 - ASSESSING UNCERTAINTY CASCADES IN ENERGY AND ENVIRONMENTAL MODELLING: A CASE FOR PORTUGAL

Alexander de Tomás-Pascual, Miquel Sierra, Ramin Soleymani

294 - USE OF DIFFERENT THERMAL INSULATION MATERIALS IN A MASONRY BUILDING: TRADE-OFF BETWEEN ENERGY AND ECONOMIC PERFORMANCE

Rafael Saraiva, Ana Carneiro, Pedro Gonçalves, Ana Ferreira, Daniel Oliveira, Senhorinha Teixeira

Session U
Sustainable Development
Building 2, Room 1.42

Chair: Patrycja Pochwatka

242- SUSTAINABILITY REPORTS – WHAT THEY SAY, THEY SHOULD, AND WHAT THEY STILL DO NOT SAY: A GENERAL ASSESSMENT

Mara Madaleno, Elisabete Vieira, Daniel Magueta, Manuel Carlos Nogueira

321 - SUSTAINABILITY VERSUS URBAN WELL-BEING: AN ANALYSIS OF THE PARAMETERS FOR CERTIFIED BRAZILIAN CITIES

Márcia Yara de Oliveira Silva, Carlos Augusto Uchôa da Silva, Bruno Noronha Rodrigues, Carolina Maria Pozzi de Castro, Felipe Benavente Cantera

299 - GREEN INFRASTRUCTURES AS A MITIGATOR OF URBANIZATION PROBLEMS: A CASE STUDY IN THE CITY OF SOROCABA, SÃO PAULO/BRAZIL

Jakeline Pertile Mendes, Letícia Santana Pereira, Bruno Noronha Rodrigues, Ana Laura Fragoso Favoreti, Vitor Eduardo Molina Junior, Felipe Benavente Canteras

208 - ELASTICITY OF SUBSTITUTION BETWEEN GREEN AND NON-GREEN JOBS. Sergey Volozhenin, João Cerejeira, Rita Sousa

Session V
Energy Transition
Building 2, Room 1.43

Chair: Flavio Trojan

330 - CONSEQUENCES OF THE ENERGY TRANSITION ON POVERTY: EVIDENCE FROM THE SOUTHERN AFRICAN DEVELOPMENT COMMUNITY

António Cardoso Marques, Diogo Santos Pereira, Querubim Capimolo Lucamba

A10 - MODELLING CHOICES AND FIT-FOR-PURPOSENESS IN THE ENERGY TRANSITION: AN EXPERIENCE FROM QUIDIAN, CALLIOPE AND ENBIOS

Cristina Madrid-López, Alexander de Tomás-Pascual, Miquel Sierra Montoya, Ramin Soleymani, Stefan Pfenninger, Diana Süsser, Johan Lilliestam

A11 – A SYSTEMATIC APPROACH FOR A JUST ENERGY TRANSITION TO INCLUDE RENEWABLES IN A SMALL ISLAND DEVELOPING STATE (SIDS)

Randy Ramadhar Singh, Ricardo M. Clarke, Xsitaz T.Chadee

205 – CITIZEN-LED TRANSFORMATION OF MULTILEVEL GOVERNANCE IN CLIMATE AND DIGITAL TRANSITIONS: THE CASE FOR DEMOCRATIC PARTICIPATION IN POLICYMAKING

Asmaa Khadim, Sofia Simou, Esteban Szmulewicz, Sarah Giest, Maria Kaufmann

Session W
Energy Planning
Room: Building 2, 0.24

Chair: Manuel Lopes Nunes

101 – BALANCING THE DYNAMICS BETWEEN GREEN HYDROGEN AND RENEWABLE ENERGY PRODUCTION IN BRAZIL. Cosme Polese Borges, Mauricio U. Maldonado, Rainer Walz, Yvonne Beck

246 - LOOKING INTO INDIA'S FUTURE IN SOLAR PHOTOVOLTAICS: A SYSTEM DYNAMICS MODEL. Mauricio Uriona Maldonado, Rhythm Singh

66 - SUSTAINABILITY IN PUBLIC TRANSPORTATION: MODELING THE ADOPTION OF ELECTRIC BUSES IN SÃO PAULO/BRAZIL. Tainara Volan, Caroline Rodrigues Vaz, Mauricio Uriona-Maldonado

204 - IMPACT ASSESSMENT OF LARGE HYDROPOWER: THE CASE OF BELO MONTE IN BRAZIL. Rodrigo Pimentel, Lígia M. Costa Pinto, Paula Ferreira

218 - INSIGHTS ON SHALE GAS DEVELOPMENT IN BRAZIL: AN EXPERT-BASED ASSESSMENT. Andréa Gomes, Luiz Borges, Paula Ferreira

110 – THE POTENTIAL CONTRIBUTION OF GREEN HYDROGEN TO THE DECARBONATION OF THE GLASS INDUSTRY IN PORTUGAL. Laura Louro, Susana Silva, Erika Laranjeira

14h00
-
16h30

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