40th IAHS World Congress - Funchal Full Programme

	16 th December		18 th December
08:00	Congress Participants Reception	09:00-11:00	Parallel Sessions
	Reception Area	11:00-11:30	Coffee Break
09:00-09:45	Opening Ceremony	11:30-12:30	Plenary Session: Sustainable Building: Two Italian Experiences
	Sunrise Auditorium		Antonio Frattari
09:45-10:30	Plenary Session: Urban Planning Luís Valente de Oliveira		Plenary Session: Theory and Design, Practice and Case Peter Schmid
	Sunrise Auditorium		Sunrise Auditorium
10:30-11:00	Coffee Break	12:30-14:00	Lunch
11:00-13:00	Parallel Sessions	14:00-16:00	Parallel Sessions
13:00-14:30	Lunch	16:00-16:30	Coffee Break
14:30-16:30	Parallel Sessions	16:30-18:50	Parallel Sessions
16:30-17:00	Coffee Break	20:30	Congress Dinner
17:00-18:40	Parallel Sessions		The meeting point for the Congress Dinner is the Vidamar Hotel Entrance at 19.30
19:30	Welcome reception		
	Instituto do Vinho, do Bordado e do Artesanato da Madeira (IVBAM)		19 th December
	The meeting point for the Welcome Reception is the Vidamar Hotel Entrance at 19.00h.	09:00-10:40	Parallel Sessions
		10:40-11:10	Plenary Session: Expanded Insulation Corkboard - Sustainable Solution to the World Insulation Carlos Manuel Silva
	17 th December		Sunrise Auditorium
09:00-11:00	Parallel Sessions	11:10-11:30	Closing Ceremony
11:00-11:30	Coffee Break		Sunrise Auditorium
11:30-12:15	Plenary Session: Breaking down technical barriers to trade in Europe for construction products. A state-of-the-art. José Vasconcelos Paiva	11:30-12:30	Farewell Cocktail
	Sunrise Auditorium		a ath m
	Plenary Session: The Project Power House Nearly-Zero Energy		20 th December

12:15-13:00	Plenary Session: The Project Power House Nearly-Zero Energy Challenge in Social Housing Sector of Europe Sorcha Edwards
	Sunrise Auditorium

13:00-14:30 Lunch

Free Afternoon / City Tour

The meeting point for the City Tour is the Vidamar Hotel Entrance at 14.30h.

09:00-17:30

Post-Congress Tour

The meeting point for the Post-Congress Tour is the Vidamar Hotel Entrance at 8.45h.

		11:00-13:00
		Urban Planning (Applied social sciences in architecture and urbanism; Risk assessment)
		Room: Lagoon I
	Chair	Igor Castro
	ID	
11h00m- 11h20m	173	SHANTYTOWNS, SLUMS AND SUSTAINABLE CONSTRUCTION: LAW AND POLICY CONSIDERATIONS
		Colin Crawford, Edésio Fernandes, Becky L. Jacobs
11h20m- 11h40m	214	CONTRIBUTION OF THE SOCIAL SCIENCES IN THE TRANSFORMATION OF INFORMAL COMMUNITIES
		Sofia Ornelas Neves, Pedro Rodrigues, Miguel Amado
11h40m- 12h00m	166	CRIME RISK ASSESSMENT IN RESIDENTIAL BUILDINGS: OPENINGS
		Giorgio Agarbati, Marco D'Orazio, Ufuk Yazgan
12h00m- 12h20m	178	EVALUATION OF FIRE RISK IN URBAN SPACES – PROPOSAL METHODOLOGY FOR ANALYSIS AND BUILDING MAINTENANCE
		Miguel Chichorro Gonçalves, A. Correia
12h20m- 12h40m	334	SEISMIC SAFETY OF URBAN CENTERS. EVALUATION OF THE VULNERABILITY FOR THE EXISTING BUILDING HERITAGE.
		Grazia Lombardo, C. Cicero
		Economics, Financing and Management (Construction management; Housing markets)
	ID	Room: Lagoon II
	Chair	Paulo Amado-Mendes
11h00m- 11h20m	148	THE ROLE OF THE CLIENT IN DRIVING INNOVATION IN TURKISH HOUSING SECTOR: STAKEHOLDERS' PERSPECTIVE
		Nida Kilinc, Gozde Basak Ozturk, Ibrahim Yitmen
11h20m- 11h40m	298	PERFORMANCE SELF-ASSESSMENT AND SUSTAINABILITY IN SMES BUILDERS
		Rosário Oliveira, Vítor Abrantes
11h40m- 12h00m	459	ATTITUDES OF CIVIL ENGINEERING STUDENTS TOWARDS SUSTAINABILITY
		Adnan Enshassi, Mosab Al Hindi
12h00m- 12h20m	455	PREDICTION OF CONSTRUCTION LABOR PRODUCTIVITY IN EGYPT
		Hesham Abdel-khalek, Remon Fayek Aziz, Khaled Mahmoud El-Gohary

12h20m- 12h40m	363	THE EXCEPTION AND THE RULE. FORMS OF URBAN RENEWAL BETWEEN DEMOLITION, RECONSTRUCTION AND RE-CYCLE INTERVENTIONS Micelli Ezio, Picchiolutto Elena
		Building Design (Design for flexibility and adaptation)
		Room: Lagoon III
	Chair ID	Nuno Biga
11h00m- 11h20m	154	SOCIAL HOUSING IN MILAN: INNOVATION OF TYPOLOGIES AND NEW USERS
		Marta Ferretti, Francesca Scrigna
11h20m- 11h40m	232	THE AGE OF INHABITANTS AND THE AGE OF BUILDINGS AS A GUIDE FOR THE ARCHITECTURE DESIGN
		Jacek Walenty Wlodarczyk, Anna Marta Wlodarczyk
11h40m- 12h00m	370	LOW COST ADAPTIVE HOUSING MODEL
		Inês Ramalhete, Miguel P. Amado, Hugo Farias
12h00m- 12h20m	389	FRAMEWORK FOR THERMAL PERFORMANCE RESILIENCE ASSESSMENT OF BUILDINGS IN A CHANGING CLIMATE - AN ILLUSTRATIVE STUDY IN LISBON
		Ricardo Barbosa, Romeu Vicente, Rui Santos
12h20m- 12h40m	248	IMPROVING ACCESS AND SERVICES TO DISABLED, VULNERABLE, AND IMPAIRED PEOPLE; IN LINE WITH RISING EXPECTATIONS, IMPROVED LIVING CHOICE AND CONDITIONS
		Daniel Watson, C. Oltean-Dumbrava, L. Breen
		Materials and Building Technology (Innovative materials, products and technologies)
		Room: Sunset I
	Chair	Carlos Duarte
	ID	
11h00m- 11h20m	170	UT SYSTEM: A STRUCTURAL SYSTEM TO BUILD TALLER URBAN TIMBER HOUSES WITH THE ASPIRED SPACIAL FLEXIBILITY
		Catarina Silva, Jorge M. Branco, Paulo B. Lourenço
11h20m- 11h40m	286	NATURAL HYDRAULIC LIME IN REHABILITATION
		André Correia, Ana Sofia Santos, Dina Frade

11h40m- 12h00m	326	AN INVESTIGATION INTO THE STRUCTURAL BEHAVIOUR OF CONCRETE REINFORCED WITH POLYPROPYLENE FIBRES.
		Vighnesh Daas, D.B. Tann, M. Datoo
12h00m- 12h20m	357	THERMAL PERFORMANCE OF COOL FAÇADES.EVALUATION BY INFRARED THERMOGRAPHY
		Luís Gonçalves, Luís Matias, Paulina Faria
12h20m- 12h40m	378	USE OF STONE IN THE FACEDS OF HIGH-RISE BUILDINGS IN JORDAN
		Yahia Al Zoubi
		Sustainability and Energy efficiency (Energy performance of buildings)
		Room: Sunset II
	Chair	Ana Vaz Sá
	ID	
11h00m- 11h20m	175	ENERGY PERFORMANCE EVALUATION OF A PASSIVE HOUSE BUILT TO SCOTTISH BUILDING STANDARDS
		Julio Bros-Williamson, Jon Stinson, John Currie
11h20m- 11h40m	204	METHODOLOGICAL PROPOSAL TO ESTIMATE THE REDUCTION OF ELECTRICAL ENERGY CONSUMPTION DUE TO VOLUNTEER APLICATION OF RTQ-C
		Paola Borges, Louise L.B. Lomardo
11h40m- 12h00m	205	IMPROVING THE ACCURACY OF THE CALCULATION OF THERMAL CAPACITY OF HEATING SYSTEMS WHEN DESIGNING THE BUILDINGS WITH HIGH ENERGY EFFICIENCY
		Vladimir G. Gagarin, Alexander Yu. Neklyudov
12h00m- 12h20m	210	ACCOUNTING FOR THE THERMAL BRIDGES IN CALCULATING OF HEAT LOSSES THROUGH THE ENCLOSURE STRUCTURES
		Vladimir Gagarin, Vladimir V. Kozlov, Alexander Yu. Neklyudov
12h20m- 12h40m	220	ENERGY PERFORMANCE OF A SCHOOL BUILDING WITH PHASE CHANGE MATERIALS
		António Castilho, Ana Vaz Sá, Vitor Abrantes
12h40m- 13h00m	354	THERMAL ANALISYS OF AVAILABLE WHITE COATINGS IN BRAZIL
		Carla Fernanda Barbosa Teixeira, Lucila Chebel Labaki

		14:30-16:30
		Urban Planning (Sustainable Planning; Housing Policies)
		Room: Lagoon I
	Chair	João Almeida and Nuno Biga
	ID	
14h30m- 14h50m	080	SUSTAINABLE URBAN PLANNING FROM AN ECONOMIC AND FINANCIAL PERSPECTIVE
		Emília Malcata Rebelo
14h50m- 15h10m	384	BENEFITS OF EVALUATION IN SPATIAL PLANNING: LEARNINGS FROM THREE METHODOLOGIES
		Antonio Ribeiro Amado, Cristina Soares Cavaco
15h10m- 15h30m	439	ON MAKING BETTER CITIES
		Naima Chabbi-Chemrouk, L. Chebaiki, N. Driouèche
15h30m- 15h50m	023	URBAN TRENDS IN THE URBAN PERIPHERY AND ISSUES RELATED TO GATED COMMUNITIES
		Sevin Aksoylu
15h50m- 16h10m	429	EVALUATION OF THE USE OF BICYCLES AS A MEAN OF TRANSPORTATION IN THE CITY OF UBERLÂNDIA
		Isabela Batista Pires, Oscar Luís Ferreira
16h10m- 16h30m	065	SOCIO-ECONOMIC FACTORS SHAPING MIXED USE DEVELOPMENTS IN INDIAN CONTEXT: A METHODOLOGY FOR PLANNED DEVELOPMENT
		Subrata Chattopadhyay, Somreeta Das
		TS13 – Smart Cities and Intelligent Buildings TS16 – Streamlined Life Cycle Analysis TS17 – The Role of BIM in Energy Efficient and Sustainable Housing Renovation
		Room: Lagoon II
	Chair ID	Isabel Pinto-Seppä
14h30m-		
14h50m	053	INTELLIGENT MONITORING ON SMART CITY PERFORMANCE
		Isabel Pinto-Seppä, Miimu Airaksinen, Hannele Ahvenniemi, Johanna Kallio, Juhani Latvakoski, Kalevi Piira
14h50m- 15h10m	059	SIMULATION MODEL FOR ENVIRONMENTALLY EFFICIENT DISTRICTS IN GREATER URBAN AREAS
		Petr Hradil, Miimu Airaksinen, Isabel Pinto-Seppä
15h10m- 15h30m	433	ICT ROAD MAP FOR SUPPORTING ENERGY SYSTEMS IN SMART CITIES
		Mari Sepponen, Bruno Fiès, Raúl García-Castro

15h30m- 15h50m	129	A PROTOTYPICAL TOOL FOR THE OPTIMISATION OF ENERGY PRODUCTION AND CONSUMPTION AT NEIGHBOURHOOD LEVEL
		Sergio Leal, Max Bloechle, Branislav Iglar, Florian Judex
15h50m- 16h10m	137	EXPLOITING BIM IN ENERGY EFFICIENT DOMESTIC RETROFIT: EVALUATION OF BENEFITS AND BARRIERS
		Elaheh Gholami, Arto Kiviniemi, Tuba Kocaturk, Steve Sharples
16h10m- 16h30m	337	BIM IN THE RETROFIT OF SOCIAL HOUSING FOR ENERGY EFFICIENCY
		Fernanda Justin Chaves, Jeferson Shin-Iti Shigaki, Julie Comlay, Patrícia Tzortzopoulos, Carlos T. Formoso
		Building Design (Low Energy buildings; Sustainable design solutions)
		Room: Lagoon III
	Chair	Miqdad Al-Jawadi
	ID	
14h30m- 14h50m	056	INNOVATIVE TALL BUILDINGS WITH SPHERICAL SHAPE:FUNCTIONAL DESIGN AND BUILDING SERVICES INTEGRATION
		Angelo Lucchini, Enrico Sergio Mazzucchelli
14h50m- 15h10m	103	FACES OF SUSTAINABLE HOUSING
		Maarten Willems
15h10m- 15h30m	371	URBAN REGENERATION: MORE ENERGY, LESS CARBON
		João Schedel, Miguel Amado
15h30m- 15h50m	395	COMPARATIVE STUDY OF ROOF THERMAL BEHAVIOR: CONCRETE SLAB AND GREEN ROOF - BELO HORIZONTE, BRAZIL
		Fabíola Lodi Accoroni Gonçalves, Maria Cristina Ramos de Carvalho, Grace Cristina Roel Gutierrez
		14:30-16:30
		Materials and Building Technology (Innovative materials, products and technologies)
		Room: Sunset I
	Chair ID	Luis Godinho
14h30m- 14h50m	407	"QUICKBUILD" A CONCEPT FOR SUSTAINABLE MODULAR CONSTRUCTION
		Filipe Bandeira, António Tadeu, Julieta António
		• • •

4h50m- 5h10m	451	CREATE JOBS, TRANSFER SKILLS AND HOUSE THE NATION
		David George Sassman
5h10m- 5h30m	456	OPERATING EXPERIENCE AND TECHNICAL DEVELOPMENTS OF AN INNOVATIVE INTEGRATED SOLAR COLLECTOR
		Christian Cristofari, Rosita Norvaišienė, Jean Louis Canaletti
5h30m- 5h50m	423	HOW COMPLEX GEOMETRY AND INDUSTRIAL PROCESS COME TOGETHER: A CASE STUDY OF THE "PALAZZO ITALIA EXPO 2015", MILANO
		Emilio Pizzi, Pierpaolo Ruttico
5h50m- 5h10m	193	A PROPOSAL FOR KNOWLEDGE MANAGEMENT, COOPERATION AND TRAINING IN EARTHQUAKE STRUCTURAL REHABILITATION
		Alfredo Soeiro
		Sustainability and Energy efficiency
		(Energy performance of buildings)
		Room: Sunset II
	Chair	Antonio Frattari
	ID	
4h30m- 4h50m	233	WINDOWS WALL RATIO IN BUILDINGS IN TERMS OF ENERGY PERFORMANCE ASSESSMENT OF RATE AND A CASE STUDY (TURKEY, ESKISEHIR) Hakan Ünalan, Emrah Gokaltun
4h50m- 5h10m	273	IMPROVING THE ENERGY PERFORMANCE OF BUILDINGS WITH NON- CONVENTIONAL LIGHTING SYSTEM
		Ary Rodrigues Alves Netto, Douglas Barreto, Maria Akutsu
5h10m- 5h30m	290	ANALYSING THE BUILDING PERFORMANCE OF HEALTH BUILDINGS ENVELOPE
		Romeu Martins Louro, Ana Ferreira Ramos, J.A.R. Mendes da Silva
5h30m- 5h50m	314	ENERGETIC EFFICIENCE ON RESIDENTIAL BUILDINGS REHABILITATION
		Rita Sousa Martins, Miguel Amado
5h50m- 5h10m	432	ENERGY SAVING IN VISUAL AND THERMAL COMFORT CONDITIONS BY SMART TECHNOLOGY: FARSYSTEM CASE STUDY
		Michela Chiogna, L. Podestà, A. Frattari

40th IAHS World Congress - Funchal

Detailed Programme of Parallel Sessions

		17:00-18:40
		TS12 – Building acoustics for newer materials
		Room: Lagoon I
	Chair	Julieta António
	ID	
17h00m- 17h20m	008	PREDICTING SOUND INSULATION IN LIGHTWEIGHT BUILDING SYSTEMS USING EN 12354
		Eddy Gerretsen
17h20m- 17h40m	207	SURVEY OF INTERNATIONAL TALL WOOD BUILDINGS
		Rebecca Holt, Klas Hagberg, Delphine Bard
17h40m- 18h00m	367	ACOUSTIC PERFORMANCE OF CROSS-LAMINATED TIMBER SYSTEM (CLT): IN SITU MEASUREMENTS OF AIRBORNE AND IMPACT SOUND INSULATION FOR DIFFERENT CONFIGURATIONS
		Luigi Pagnoncelli, Alessia Gadotti, Antonio Frattari, Erica Bazzini, Laura Moran
18h00m- 18h20m	406	DYNAMIC PROPERTIES OF A COMPOSITE MADE OF GRANULATED CORK AND RICE HUSK
		Julieta António, António Tadeu, José Nascimento, Filipe Pedro, Adriano Martins
		Economics, Financing and Management (Construction planning; Housing policies; Financing systems)
		Room: Lagoon II
	Chair	Nuno Abrantes
	ID	
17h00m- 17h20m	161	SOCIAL HOUSING BY PUBLIC-PRIVATE PARTNERSHIP: A COMPARISON BETWEEN ITALIAN, FRENCH AND U.S. POLICIES
		Steve Bariselli, Maria Luisa Del Gatto
17h20m- 17h40m	162	PROVISION OF AFFORDABLE HOUSING IN NIGERIA: SUCCESSES SO FAR & FUTURE CHALLENGES
		Julius Ojebode, Kassim Gidado, Noel Painting
17h40m- 18h00m	256	SOCIAL HOUSING & MANAGEMENT. REFLECTIONS AND ANALYSIS OF SOCIAL & REAL ESTATE MANAGEMENT OF RESIDENTIAL BUILDINGS
		Maria Luisa Del Gatto, Marzia Morena
18h00m- 18h20m	289	CONTRIBUTIONS TO THE IMPROVEMENT OF THE ENERGY PERFORMANCE OF THE CENTRAL REGION OF PORTUGAL
		António Magalhães Cardoso, Cristina Reis Tadeu

18h20m- 18h40m	186	THE QUALITY IN THE PROCESS OF SELF-BUILDING. ANALYSIS OF THE MOST EFFECTIVE INFORMATION SYSTEMS FOR THE SELF-BUILDERS
		Rosa Caponetto, Nancy Caruso
		Building Physics (Acoustics and vibrations; Indoor thermal confort)
		Room: Lagoon III
	Chair	Isabel Pinto-Seppä
	ID	
17h00m- 17h20m	151	MOISTURE CAPACITY OF LOG HOUSES CAN IMPROVE THE INDOOR CLIMATE CONDITIONS
		Tuomo Ojanen
17h20m- 17h40m	274	THERMAL PERFORMANCE ANALYSIS OF BRAZILIAN CONCRETE WALLS
		Raquel Diniz Oliveira, Roberta Vieira Gonçalves de Souza, Carolina Tavares de Sousa Vilila, Roberto Márcio da Silva
17h40m- 18h00m	158	ENERGY AND CARBON EMBODIED IN MICRO-HOMES. TOOLS FOR THE DESIGN OF CONSTRUCTION SYSTEMS
		Maria Antonia Barucco, Margherita Ferrari, Valentina Manfè
18h00m- 18h20m	413	NUMERICAL MODELING OF DIFFUSIVE ACOUSTIC BARRIERS
		Paulo Amado Mendes, Carlos Prieto Gajardo, Luís Godinho, J. Miguel Barrigón Morillas
18h20m- 18h40m	414	ACOUSTIC PERFORMANCE OF MICROPERFORATED MDF PANELS – AN EXPERIMENTAL STUDY
		Luis Godinho, Ricardo Patraquim, Paulo Amado-Mendes, Ana Neves

Materials and Building Technology (Materials with incorporated waste) Room: Sunset I Chair Isabel Torres ID 17h00m-POTENTIAL AND BARRIERS FOR REUSING LOAD-BEARING BUILDING 018 17h20m COMPONENTS IN FINLAND Satu Huuhka, Jani H. Hakanen 17h20m-INDUSTRIAL RESIDUES OF THE GLASS AND CERAMIC WOOL APLLIED 081 IN CONCRETE 17h40m Neuza Evangelista, Jorge A. S. Tenório, José R. de Oliveira

155	THE REUSE OF WASTE FOR THE IMPROVEMENT OF ENVIRONMENTAL PROFILE OF BUILDINGS PRODUCTS
	Marco Migliore, Andrea Campioli, Monica Lavagna, Ilaria Oberti, Giancarlo Paganin, Cinzia Talamo
434	USE OF WASTE FROM ORNAMENTAL STONES INDUSTRY FOR MANUFACTURE OF HYDRAULIC FLOOR TILE
	André Luiz Lopes Toledo, Claudia Costa, Emanoela Freitas, Juliana Souza, Maryane Melo, Sílvia Fernandes
409	STUDY OF BINARY MIXTURES OF CLAY AND SLUDGE TREATMENT STATION WATER FOR CERAMIC MATERIAL - BLOCKS
	Leandro Cavalcanti, Rafaela Rodrigues, André Patriota, Arnaldo Carneiro
	Sustainability and Energy efficiency (Energy performance of buildings; Indoor air and environmental quality)
	Room: Sunset II
Chair	Ana Ramos
449	ENERGY PERFORMANCE CERTIFICATION IN LITHUANIAN BUILDING SECTOR
	Rosita Norvaisiene, Jūratė Karbauskaitė, Patrikas Bruzgevičius
039	ASSESSMENT OF VENTILATION IN ELDERLY CARE CENTRES
	Fábio Cerqueira, Susana Azevedo, Daniel Aelenei, João Carlos Viegas
393	INDOOR AIR QUALITY AND THERMAL COMFORT IN AN EDUCATIONAL BUILDING – CASE STUDY
393	
	434 409 Chair 449

18h00m-PERFORMANCE OF A CERAMIC TILE ROOF WITH VENTED EAVES AND 348 18h20m SUB-TILES

João Ramos, Luis Almeida

		09:00-11:00
		Urban Planning (Housing policies)
		Room: Lagoon I
	Chair	Raimundo Mendes da Silva
09h00m- 09h20m	051	THE CITY OF PORTO AND THE PUBLIC HOUSING.LEARNING FROM DESIGN PRACTICE
		Nuno Abrantes, Fernando Brandão Alves, Vítor Abrantes
09h20m- 09h40m	082	HOUSING POLICY OF SOCIAL INTEREST: SELF MANAGEMENT HOUSING
		Anicoli Romanini, Marcele S. Martins, Rodrigo Rintzel, Camila B. Zanella
09h40m- 10h00m	110	TYPOLOGY OF URBAN HOUSEHOLDS AND THEIR TRANSITION FROM INFORMAL TO FORMAL STATUS
		Isidoro Malaque III, Katharine Bartsch, Peter Scriver
10h00m- 10h20m	266	LIBYAN POLICY IN THE FIELD OF PUBLIC HOUSING
		Ezeddin Mohamed Shawesh
10h20m- 10h40m	349	BALANCING COMMUNITY AND GOVERNANCE IN THE CITIES OF FUTURE
		Mohammed Sabah Al-Shabander, Marwa Hazim Al-Mushhdani
		Building Design (Intelligent Buildings; Computational Methods for Building Design; Building Information Models)
		Room: Lagoon II
	Chair	Bruno Marques
	ID	
09h00m- 09h20m	229	BIM BASED COLLABORATIVE DESIGN TECHNOLOGY FOR COLLECTIVE SELF-ORGANISED HOUSING
		Ton Damen, Matthew MacDonald, Timo Hartmann, Roberto Di Giulio, Peter Bonsma, Klaus Luig, Rizal Sebastian, Danny Soetanto
09h20m- 09h40m	296	SUSTAINABLE WIND CATCHER FOR HOUSES IN HOT DRY AREAS
		Miqdad Al-Jawadi, Ali Farhan Darwish
09h40m- 10h00m	373	STUDY OF A PILOT-SCHOOL FOR A HOT CLIMATE DEVELOPING REGION: EVALUATION BASED ON DYNAMIC SIMULATION PERFORMANCE
		Bruno Marques, Helena Corvacho, Mário Manaia, António Andresen

י ו	328	PORTUGUESE REGI
ו- ו	027	Lisandra Fachinello K Cunha, Mariane Pinto Antonio César Silveira COMPARISON OF EI ENVIRONMENT IN A MODES Sandy Halliday, Wayn

10h20m	188	BIM OBJECTS
		F. Salvado, M.J. Falcão Silva, P. Couto, A. Vale e Azevedo, A. Manso
10h20m- 10h40m	385	INTEGRATED PROJECT DELIVERY AND LEAN CONSTRUCTION FOR A SUSTAINABLE HOUSING POLICY

Carlo Zanchetta, Giorgio Garau, Giorgio Croatto, Umberto Turrini

BUILDING DESIGN: TECHNICAL STANDARDIZED INFORMATION FOR

		TS20 - Passive House and Nearly Zero Energy Buildings
		Room: Lagoon III
	Chair	Romeu Vicente and Maria Fernanda Rodrigues
	ID	
09h00m- 09h20m	014	EXPERIMENTAL CONSTRUCTION OF ASIAN NET-ZERO ENERGY HOUSE WITH SMART TECHNOLOGIES
		Yasushi Ikeda, Hikaru Kobayashi, Toshiharu Ikaga, Hiroaki Nishi
09h20m- 09h40m	174	ANALYSIS AND ADAPTABILITY OF HIGH ENERGY EFFICIENCY STANDARDS FOR ENERGY RETROFIT IN PORTUGAL
		Tiago Rodrigues, Fernanda Rodrigues, Romeu Vicente, Marlene Parada, Rui Oliveira, Ana Alves
09h40m- 10h00m	254	SENSITIVITY ANALYSIS OF RTQ-C HOW TO VARIATION THE OFFICE EQUIPMENT LOAD DENSITY AND ABSORPTANCE
		Mariane Brandalise, Eduardo Grala da Cunha, Larissa Cristina de Oliveira
10h00m- 10h20m	285	PASSIVE HOUSES THERMAL AND ENERGY BEHAVIOUR SIMULATION
		José Figueira, António Figueiredo, Romeu Vicente, Fernanda Rodrigues, Rui Maio
10h20m- 10h40m	328	BUILDING ENERGY EFFICIENCY: REVIEW OF BRAZILIAN AND PORTUGUESE REGULATIONS
10h40m- 11h00m	027	Lisandra Fachinello Krebs, Maria Fernanda Rodrigues, Eduardo Grala da Cunha, Mariane Pinto Brandalise, Jaqueline Peglow, Beatriz Maria Fedrizzi, Antonio César Silveira Baptista da Silva COMPARISON OF ENERGY CONSUMPTION AND INDOOR ENVIRONMENT IN A PASSIVE HOUSE IN AUTOMATIC AND MANUAL MODES Sandy Halliday, Wayne Butler

10h00m-

188

		Sustainability and Energy efficiency (Sustainable Housing and Construction)
		Room: Sunset I
	Chair	Paulo Mendes
	ID	
09h00m- 09h20m	035	THE RELATIONSHIP BETWEEN CONSTRUCTION TECHNOLOGIES AND ENVIRONMENTAL IMPACTS
		Buket Metin, Aslihan Tavil
09h20m- 09h40m	048	STEERING OF SUSTAINABLE BUILDING IN PUBLIC BUILDING AND RENOVATION PROJECTS
		Mirkka Rekola, Tarja Häkkinen, Mia Ala-Juusela
09h40m- 10h00m	113	LEAN CONSTRUCTION OF PUBLIC HOUSING PRODUCTION IN HONG KONG: A PROCESS-BASED APPROACH
		S. Thomas Ng, Weiwu Zou, Kelwin Wong, George Q. Huang
10h00m- 10h20m	143	THE SUSTAINABLE REQUALIFICATION OF THE EXISTING SOCIAL HOUSING STOCK IN THE MEDITERRANEAN EUROPEAN COUNTRIES: A COMPARISON BETWEEN ITALY AND SPAIN
		Dora Francese, N. Mastrangelo, R. Tendero Caballero Caballero, P. Izquierdo Gracia
10h20m- 10h40m	181	THE GREEN REGENERATION OF SOCIAL HOUSING IN SOUTH AFRICA
		Claudia Loggia, D. Bhoora, V. Tramontin, C.Trois
10h40m- 11h00m	153	ENERGY AUDIT AND COMFORT EVALUATION OF A SCHOOL BUILDING WITH THE STUDENTS' PARTICIPATION
		Paola Lassandro, Antonella Tundo
		Refurbishment

		Refurbishment Sustainable and energy-efficient retrofitting
		Room: Sunset II
	Chair	Fausto Freire and Inês Simões
	ID	
09h00m- 09h20m	045	ENERGY-EFFICIENCY UPGRADES: RESIDENTIAL BUILDINGS FROM THE PERIOD UP TO 1940 IN ZAGREB
		Iva Muraj
09h20m- 09h40m	136	PREASSEMBLED TIMBER PANELS FOR ROOF RETROFIT: A METHOD FOR THE SELECTION OF SUSTAINABLE AND RECYCLED MATERIALS
		Francesco Pittau, Laura Elisabetta Malighetti , Gabriele Masera, Giuliana Iannaccone

09h40m- 10h00m	251	COST AND GREENHOUSE GAS LIFE-CYCLE ANALYSIS OF BUILDING ENVELOPE RETROFIT
		Carla Rodrigues, Fausto Freire
10h00m- 10h20m	252	DOES TYPE OF USE AND OCCUPANCY INFLUENCE THE PERFORMANCE OF BUILDING RETROFIT STRATEGIES?
		Carla Rodrigues, Fausto Freire
10h20m- 10h40m	003	MINIMUM-INVASIVE ENERGY RETROFIT APPROACHES FOR OWNER COMMUNITIES IN MULTY-OCCUPANCY RESIDENTIAL BUILDINGS
		Georgi Georgiev, Martin Krus
		TS04 - Integral Sustainable Housing TS07 - Innovative sustainable coatings
		Room: Sunset III
	Chair	Isabel Torres
	ID	
09h00m- 09h20m	366	A SOCIALLY SUSTAINABLE DESIGN METHOD FOR HOUSING - RIO GRANDE DO SUL, BRAZIL, AND LISBON, PORTUGAL
		César Canova, Tânia Ramos, João Pedro Treviso, Isadora Teodoro, Marcos Diligenti
09h20m- 09h40m	436	LEARNING FROM BUILDINGS LIVE & WORK IN ECO-EDUCATIONAL COMMUNITY
		Sally Starbuck, Paul Leech
09h40m- 10h00m	212	LONG-TERM CHARACTERIZATION OF AIR LIME MORTARS WITH CERAMIC WASTE
		Gina Matias, Isabel Torres, Paulina Faria

INFLUENCE OF THE WETTING CONDITIONS OF THE SUBSTRATES IN MORTAR PROPERTIES 245

Isabel Torres, Rosário Veiga, Vasco Freitas

10h00m-

10h20m

18th Decembe	۶r
--------------	----

	09:00-11:00
	TS22 – Construction history and constructive systems characterization: Design, construction, rehabilitation and maintenance processes Urban Planning (Smart cities)
Chair	Room: Lagoon I Rui Póvoas and Clara Pimenta do Vale
ID	
115	DESIGNING FOR THE FUTURE OF THE CITY
	Pelin Dursun Cebi, Nilufer Kozikoglu
196	ENERGY SAVING IN TALL BUILDINGS: FROM URBAN PLANNING REGULATION TO SMART GRID BUILDING SOLUTIONS
	Valentina Antoniucci, Chiara D'Alpaos, Giuliano Marella
184	AN EARLIER EXAMPLE OF PORTUGUESE CONCRETE PREFABRICATION, THE "TORRE DA BOAVISTA" CONDOMINIUM IN PORTO
	Clara Pimenta do Vale, Vítor Abrantes
192	PORTUGUESE "PALLADIANA" TRUSS ROOFS: CONSTRUCTIVE AND STRUCTURAL CHARATERISTICS.
	João Sarrazola Martins, António Sousa Gago, Pedro Lopes
277	THE IMPORTANCE OF THE RESEARCH IN CONSTRUCTION HISTORY FOR THE SAFEGUARD AND VALORIZATION OF THE ARCHITECTURAL HERITAGE. THE EXAMPLE OF THE BOURGEOIS HOUSES OF THE CITY OF PORTO
	Rui Póvoas, Joaquim Lopes Teixeira
283	THE HQDIL METHOD TO ASSESS THE SUSTAINABILITY OF AN HISTORIC CENTER. CASE OF MANSOURAH K'BIRA (ALGERIA)
	Sehili Farida, Chennaoui Youcef
	Sustainability and Energy efficiency (Sustainable Housing and Construction)
Chair	Room: Lagoon II Luis Godinho
	IMPROVING THE ENERGY PERFORMANCE OF LIGHT STEEL-FRAMED
323	CONSTRUCTION WITH PCM-DRYWALLS IN MEDITERRANEAN CLIMATES Nelson Soares, Adélio R. Gaspar, Paulo Santos, José J. Costa
	ID 115 196 184 192 277 283 Chair ID

09h20m- 09h40m	201	SIMULATION OF ENERGY DEMAND FOR HEATING AND COOLING SYSTEM IN A SHOPPING CENTRE
		Katarina Kovacova, Martin Kovac
09h40m- 10h00m	282	UPGRADING THE ENERGY EFFICIENCY OF A RESIDENTIAL DWELLING - SUSTAINABLE ENERGY INTERVENTIONS
		Renato Iovino, Emanuele La Mantia
10h00m- 10h20m	450	SUSTAINABLE BUILDING DESIGN AND CONSTRUCTION
		M. Viswanadham, Sheela Eshwariah
10h20m- 10h40m	261	SUSTAINABLE SOCIAL HOUSING
		Maria Luisa Del Gatto, Giordana Ferri, Angela Silvia Pavesi
10h40m- 11h00m	416	THE INFLUENCE OF GREEN ROOF AND NATURAL VENTILATION ON ENVIRONMENTAL COMFORT IN A TROPICAL COUNTRY
		Carla Matheus, Lucila C. Labaki
		Refurbishment (Sustainable and energy-efficient retrofitting; Innovative products and technologies for existing buildings)
		Lagoon III
	Chair	Lagoon III Fátima Farinha
	Chair ID	5
09h00m- 09h20m		5
	ID	Fátima Farinha PERFORMANCE MONITORING OF MULTIFUNTIONAL FAÇADE SYSTEM
	ID	Fátima Farinha PERFORMANCE MONITORING OF MULTIFUNTIONAL FAÇADE SYSTEM FOR BUILDING RETROFITING Kalevi Piira, Wojciech Golebiowski, Henri Biström, Pekka Tuomaala, Adam
09h20m 09h20m-	ID 054	Fátima Farinha PERFORMANCE MONITORING OF MULTIFUNTIONAL FAÇADE SYSTEM FOR BUILDING RETROFITING Kalevi Piira, Wojciech Golebiowski, Henri Biström, Pekka Tuomaala, Adam Rudzinski, Marcin Bukat, Maciej Michajlow, Isabel Pinto-Seppä FAÇADISM AND CLT TECHNOLOGY: AN INNOVATIVE SYSTEM FOR
09h20m 09h20m-	ID 054	Fátima Farinha PERFORMANCE MONITORING OF MULTIFUNTIONAL FAÇADE SYSTEM FOR BUILDING RETROFITING Kalevi Piira, Wojciech Golebiowski, Henri Biström, Pekka Tuomaala, Adam Rudzinski, Marcin Bukat, Maciej Michajlow, Isabel Pinto-Seppä FAÇADISM AND CLT TECHNOLOGY: AN INNOVATIVE SYSTEM FOR MASONRY CONSTRUCTION REFURBISHMENT Angelo Lucchini, Enrico Sergio Mazzucchelli, Sara Mangialardo, Margherita
09h20m 09h20m- 09h40m 09h40m-	ID 054 057	Fátima Farinha PERFORMANCE MONITORING OF MULTIFUNTIONAL FAÇADE SYSTEM FOR BUILDING RETROFITING Kalevi Piira, Wojciech Golebiowski, Henri Biström, Pekka Tuomaala, Adam Rudzinski, Marcin Bukat, Maciej Michajlow, Isabel Pinto-Seppä FAÇADISM AND CLT TECHNOLOGY: AN INNOVATIVE SYSTEM FOR MASONRY CONSTRUCTION REFURBISHMENT Angelo Lucchini, Enrico Sergio Mazzucchelli, Sara Mangialardo, Margherita Persello EFFECTS IN AN ATTEMPT OF REGIONAL REVITALIZATION PROJECT
09h20m 09h20m- 09h40m 09h40m-	ID 054 057	Fátima Farinha PERFORMANCE MONITORING OF MULTIFUNTIONAL FAÇADE SYSTEM FOR BUILDING RETROFITING Kalevi Piira, Wojciech Golebiowski, Henri Biström, Pekka Tuomaala, Adam Rudzinski, Marcin Bukat, Maciej Michajlow, Isabel Pinto-Seppä FAÇADISM AND CLT TECHNOLOGY: AN INNOVATIVE SYSTEM FOR MASONRY CONSTRUCTION REFURBISHMENT Angelo Lucchini, Enrico Sergio Mazzucchelli, Sara Mangialardo, Margherita Persello EFFECTS IN AN ATTEMPT OF REGIONAL REVITALIZATION PROJECT THROUGH THE "RENOVATION SCHOOL"
09h20m 09h20m- 09h40m 10h00m 10h00m-	ID 054 057 078	Fátima Farinha PERFORMANCE MONITORING OF MULTIFUNTIONAL FAÇADE SYSTEM FOR BUILDING RETROFITING Kalevi Piira, Wojciech Golebiowski, Henri Biström, Pekka Tuomaala, Adam Rudzinski, Marcin Bukat, Maciej Michajlow, Isabel Pinto-Seppä FAÇADISM AND CLT TECHNOLOGY: AN INNOVATIVE SYSTEM FOR MASONRY CONSTRUCTION REFURBISHMENT Angelo Lucchini, Enrico Sergio Mazzucchelli, Sara Mangialardo, Margherita Persello EFFECTS IN AN ATTEMPT OF REGIONAL REVITALIZATION PROJECT THROUGH THE "RENOVATION SCHOOL" Mitsuhiro Tokuda, Shuichi Matsumura, Yoshitugu Shimizu, Yohei Shimada THE CALCULATION OF THE ENERGY DEMAND [KWH/SQM PER YEAR]
09h20m 09h20m- 09h40m 10h00m 10h00m-	ID 054 057 078	Fátima Farinha PERFORMANCE MONITORING OF MULTIFUNTIONAL FAÇADE SYSTEM FOR BUILDING RETROFITING Kalevi Piira, Wojciech Golebiowski, Henri Biström, Pekka Tuomaala, Adam Rudzinski, Marcin Bukat, Maciej Michajlow, Isabel Pinto-Seppä FAÇADISM AND CLT TECHNOLOGY: AN INNOVATIVE SYSTEM FOR MASONRY CONSTRUCTION REFURBISHMENT Angelo Lucchini, Enrico Sergio Mazzucchelli, Sara Mangialardo, Margherita Persello EFFECTS IN AN ATTEMPT OF REGIONAL REVITALIZATION PROJECT THROUGH THE "RENOVATION SCHOOL" Mitsuhiro Tokuda, Shuichi Matsumura, Yoshitugu Shimizu, Yohei Shimada THE CALCULATION OF THE ENERGY DEMAND [KWH/SQM PER YEAR] FOR A RESIDENTIAL BUILDING UNDER ITALIAN LAW

		Refurbishment (Building pathologies and diagnostic)
		Room: Sunset I
	Chair	Paulo Mendes
	ID	
09h00m- 09h20m	042	OLD CONCRETE BUILDING PATHOLOGY - CASE STUDY
		Maria de Lurdes Belgas da Costa, Jorge M. Mascarenhas, Fernando G. Branco
09h20m- 09h40m	106	OLD BUILDINGS CHARACTERISTICS: DESIGNING A TOOL FOR BUILDINGS' APPRAISAL
		Ana Ferreira Ramos, J. A. R. Mendes da Silva, Isabel Torres, Elisabete Milheiro Santos
09h40m- 10h00m	144	IMPROVING COMPONENT INTEGRATION IN BUILDING CONSTRUCTION PROCESS
		Sara Hadji Rezai, Francis Allard, Charlotte Abelé, Maxime Doya
10h00m- 10h20m	169	METHODOLOGY OF STRUCTURAL RELIABILITY ASSESSMENT FOR ENERGY-EFFICIENT RETROFITTING
		Václav Vimmr, Otto Villatoro
10h20m- 10h40m	226	CASA DE LA RAZA: CHRONICLES OF WATER MITIGATION FROM DAMAGE CAUSED BY THE 1989 LOMA PRIETA EARTHQUAKE
		Francisco Borvice
10h40m- 11h00m	265	BEHAVIOR OF BUILDING REHABILITATION: AN EVALUATION SCHEME
		Catarina Oliveira, Vitor Abrantes, Ana Vaz Sá
		TS21 – New business models and innovative tools for future housing development
		Room: Sunset II
	Chair	Roberto Di Giulio
	ID	
09h00m- 09h20m	047	TECHNOLOGICAL INNOVATION IN SOCIAL HOUSING
		Massimo Rossetti
09h20m- 09h40m	092	CHALLENGES FOR PUBLIC-PRIVATE PARTNERSHIPS IN IMPROVING ENERGY EFFICIENCY OF BUILDING SECTOR

09h40m- 10h00m	100	FLEXIBILITY IN HOUSING DESIGN: NEW STRATEGIES TO HINDER THE FUNCTIONAL AND TECHNOLOGICAL OBSOLESCENCE
		Cristiana Cellucci, Michele Di Sivo
10h00m- 10h20m	105	INNOVATIVE MODELS AND STRATEGIES FOR ADAPTING THE BUILT ENVIRONMENT TO CLIMATE CHANGE
		Andrea Boeri, David Dernie, Jacopo Gaspari
10h20m- 10h40m	026	NEW OPPORTUNITIES FOR BUILT ENVIRONMENT REGENERATION; WEB AND DATABASE SYSTEMS FOR THE CREATION OF A COLLECTIVE CLIENT GROUP
		Paola Piermattei
10h40m- 11h00m	071	COLD-FORMED STEEL.A HISTORICAL ANALYSIS IN ORDER TO IDENTIFY NEW BUILDING PROCESSES FOR THE CONSTRUCTION OF SOCIAL HOUSING.
		Maria Antonia Barucco, Valeria Tatano
		TS44 Energy entimization of huildings envelope
		TS14 – Energy optimization of buildings envelope
		Room: Sunset III
	Chair	Nuno Simões
	ID	
09h00m- 09h20m	037	INTEGRATED COST, ENERGY AND ENVIRONMENTAL ASSESSMENT OF INSULATION MATERIALS APPLIED TO A NEW PORTUGUESE REFERENCE BUILDING
		Seyedeh Shiva Saadatian, Fausto Freire, Nuno Simões
09h20m- 09h40m	135	THE OPTIMIZATION OF ENERGY PERFORMANCE ABOUT A COMPONENT IN RELATION TO CLIMATIC CONTEXT
		Maria Teresa Lucarelli, Caterina C. Musarella
09h40m- 10h00m	235	COMPARATIVE LIFE CYCLE ASSESSMENT OF THERMAL BLOCKS
		Maria Inês Santos, Nuno Simões, António Tadeu, António Nascimento
10h00m- 10h20m	308	THE IMPACT OF THE THERMAL INSULATION COST ON THE PROFITABILITY OF ENERGY REHABILITATION OF BUILDINGS
		Sérgio Fernando Tadeu, António Tadeu, Nuno Simões, Márcio Gonçalves
10h20m- 10h40m	309	MULTCRITERIA ANALYSIS OF OCCUPANTS' PERCEPTIONS ON THE BENEFITS OF ENERGY RETROFITTING OF BUILDINGS
		Sérgio Fernando Tadeu, Carla Rodrigues, António Tadeu, Nuno Simões, Márcio Gonçalves
10h40m- 11h00m	324	EXPERIMENTAL SETUP TO EVALUATE THE HEAT TRANSFER THROUGH A VERTICAL STACK OF RECTANGULAR CAVITIES FILLED WITH FREE- FORM PCMS FOR BUILDING APPLICATIONS
		Nelson Soares, Adélio R. Gaspar, Paulo Santos, José J. Costa

14h00m-14h20m

14h20m-14h40m

14h40m-

15h00m

15h00m-

15h20m

	14:00-16:00
	TS19 – Sustainable and water efficient buildings
	Room: Lagoon I
Chair	Armando Silva Afonso and Zuzana Vranayova
ID	
017	CONTRIBUTIONS TO THE IMPROVEMENT OF GREEN ROOFS IN MEDITERRANEAN CLIMATE, INCLUDING RAINWATER HARVESTING
	Cristina Monteiro, Cristina S. C. Calheiros, Carla Pimentel-Rodrigues, Armando Silva-Afonso, Paula M. L. Castro
021	INTEGRATED GREY WATER MANAGEMENT AT THE BUILDING LEVEL
	Daniela Kaposztasova, Zuzana Vranayova, Gabriel Markovic, Martina Rysulova
024	THE FACILITIES FOR THE PERLOCATION OF PRECIPITATION WATER
	Gabriel Markovic, Daniela Kaposztásová, Zuzana Vranayová
099	RESTORATION OF URBAN ENVIRONMENT BASED ON GREEN ARCHITECTURE THEORIES
	Zuzana Poórová, Zuzana Vranayová

		Zuzana Poórová, Zuzana Vranayová
15h20m- 15h40m	112	FEASIBILITY OF THE WATER CONSERVATION CRITERIA OF THE HIGH ENVIRONMENTAL QUALITY (AQUA), A BRAZILIAN ENVIRONMENTAL LABEL
		Marcus Campos, Hugo A. Vianna, Gustavo L. Vitalli
15h40m- 16h00m	171	SUSTAINABLE CONSTRUCTION: WATER EFFICIENCY IN HOUSING SECTOR
		Ana M. Alcafache, Miguel P. Amado

		Sustainability and Energy efficiency (Renewable Energy in Buildings; Life cycle assessment)
		Room: Lagoon II
	Chair	Bruno Marques
	ID	
14h00m- 14h20m	247	USE OF EFFECTIVE METHODS IN SUSTAINABLE DESIGN IN CLUSTER HOUSING - A CASE STUDY IN TRABZON/TURKEY
		Ayça Araz Ustaömeroğlu
14h20m- 14h40m	301	MODELLING AND PERFORMANCE ANALYSIS OF AN EARTH-TO-AIR HEAT EXCHANGER
		Paulo Santos, Miguel A. Sousa, José J. Costa

14h40m- 15h00m	452	ANALYSIS ON APPLICABILITY OF NATURAL VENTILATION IN PASSIVE SOLAR HOUSE IN LHASA, CHINA
		Ming Zhang, Wei Yu, Chenqiu Du, Fanzhi Zeng
15h00m- 15h20m	070	IMPACT OF EMBODIED CARBON IN THE LIFE CYCLE OF BUILDINGS ON CLIMATE CHANGE FOR A SUSTAINABLE FUTURE
		Bulent Unalan, Alberto Celani, Harun Tanrivermis, Mehmet Bulbul, Andrea Ciaramella
15h20m- 15h40m	168	COMPARISON OF THE ENVIRONMENTAL, ECONOMIC AND ENERGY PERFORMANCE OF ETICS WITH ICB AND WITH EPS
		José D. Silvestre, José J. B. C. da Silva, André M. P. Castelo, Jorge de Brito, Manuel D. Pinheiro
15h40m- 16h00m	250	HOW DOES RESIDENTIAL LOCATION INFLUENCE THE ENVIRONMENTAL LIFE-CYCLE IMPACTS OF A HOUSEHOLD?
		Joana Bastos, Stuart Batterman, Fausto Freire
		Refurbishment (Innovative products and technologies for existing buildings;
		Preservation and maintenance of the built heritage)
		Room: Lagoon III
	Chair ID	Paulo Mendes
14600	U	
14h00m- 14h20m	160	THE "TILES OF XXI CENTURY"
		Jorge Tavares Ribeiro, Carolina Hogan, Luís Santos
14h20m- 14h40m	346	INNOVATION SOLUTIONS TO ECO-SMART-HOUSING FOR ELDERLY – WIDER PROJECT
		Fátima Farinha, Angeliki Fotiadou, Dzenana Bijedic
14h40m- 15h00m	347	VERTICAL ADDITION OF AN EXISTING MASONRY BUILDING BY A COLD-FORMED STEEL STRUCTURE
		Antonio Formisano, Anna Marzo
15h00m- 15h20m	463	SUSTAINABLE INSULATION COMPOSITE PLASTERBOARD SOLUTION - ACOUSTIC LABORATORIAL CHARACTERIZATION
		José Ávila e Sousa, Dulce Carvalho, Paulo Amado-Mendes
15h20m- 15h40m	025	SOLUTION OF RISING DAMP WITH VENTILATED AIR CHANNEL FOR THE CHURCH IN GEMERSKÝ JABLONEC
		Anna Sedláková, Ladislav Ťažký
15h40m- 16h00m	031	NEW TYPES OF HOUSING FOR THE BUILT HERITAGE PRESERVATION. RECONSTRUCTION OF THE SMALL CENTERS IN ABRUZZO

Alessandra Tosone, Alessandra Bellicoso

40th IAHS World Congress - Funchal

Detailed Programme of Parallel Sessions

		Sustainability Room: Sunset I
	Chair	Anabela Paiva and João Lanzinha
	ID	
14h00m- 14h20m	036	EXPERIMENTAL ASSESSMENT OF IAQ IMPROVEMENT IN NATURALLY VENTILATED EDUCATIONAL BUILDINGS
		Manuel Pinto, Ricardo Almeida, Paulo Pinho, Teixeira de Lemos, João Lanzinha
14h20m- 14h40m	074	MICRO-GENERATION AND MINI-GENERATION – SUSTAINABLE PRODUCTION AND EFFICIENT USE OF ELECTRICAL ENERGY IN BUILDINGS
		Pedro Lourenço, Pedro Sá Furtado
14h40m- 15h00m	194	INVESTMENTS AND MAINTENANCE DECISIONS INFLUENCING BUILDING LIFE CYCLE ENERGY CONSUMPTION
		Dalibor Vytlacil
15h00m- 15h20m	338	THE LOCAL INFLUENCES OF SUSTAINABILITY IN HISTORIC CENTRES FOR BUILDINGS REFURBISHMENT AND FOR LIVING
		Rui Oliveira, Jorge Lopes, Maria Isabel Abreu
15h20m- 15h40m	376	LIFE CYCLE ASSESSMENT OF SOLAR THERMAL SYSTEMS
		Verónica Fernandes, Ricardo Mateus, Luís Bragança, Sandra Silva, Manuela Almeida
15h40m- 16h00m	418	SUSTAINABLE CHARACTERISTICS OF SCHIST AND GRANITE ANCIENT BUILDINGS IN THE PERSPECTIVE OF THE THERMAL BEHAVIOUR
		Marta Pereira, Ana Briga Sá, Anabela Paiva, Jitka Mohelníková, Sandra Pereira, Jorge Pinto
		TS21 – New business models and innovative tools for future housing development
		Room: Sunset II
	Chair	Roberto Di Giulio
	ID	
14h00m- 14h20m	140	NOVEL DESIGN PRINCIPLES AND PROCESS MODELS FOR EMERGING CSO HOUSING MARKET
		Jeroen Brouwer, Esra Bektas, Roberto Di Giulio, Mariagiulia Pasqualis, Costanza Quentin, Perica Savanović
14h20m- 14h40m	142	DESIGN DRIVEN APPROACH TO HOUSING
		Daniele Fanzini, Irina Rotaru

163	HOW INNOVATIVE BUSINESS MODELS CAN BOOST THE ENERGY EFFICIENT BUILDINGS MARKET
	Eva Boo, Eve Dallamaggiore, Niall Dunphy, John Morrissey
165	MARKET POTENTIAL FOR COLLECTIVE SELF-ORGANISED HOUSING INTERVENTIONS IN EUROPE
	Jeroen Brouwer, Éva Gerőházi, Klaus Th. Luig, Hanna Szemző
167	A SPIN OFF START UP FOR A HOUSING SUSTAINABLE REDEVELOPMENT
	Donatella Radogna, Alberto Viskovic, Manuela Romano, Marco Fiusco
067	THE CONTRIBUTION OF SURVEY TO POPULAR ARCHITECTURE FOR THE INCREMENTAL HOUSING PROJECTS IN PORTUGAL
	Bárbara Rangel, Fernando Brandão Alves, Vítor Abrantes
	TS14 – Energy optimization of buildings envelope TS15 – Thermal inspection techniques of buildings
	Room: Sunset III
Chair	Nuno Simões and Inês Simões
ID	
361	NEW FACADE DEVELOPED FOR SUSTAINABLE, ZERO-ENERGY OFFICE BUILDING – THEORETICAL ASSUMPTIONS AND NUMERICAL ANALYSIS
	Dariusz Heim, Ireneusz Zbiciński, Magda Barecka, Dominika Knera, Anna Machniewicz, Eliza Szczepańska-Rosiak
445	COUPLING HEAT, AIR AND MOISTURE FLOW THROUGH A MULTILAYERED POROUS SOLID USIG A BEM MODEL
	Leopold Škerget, António Tadeu
280	SIMULATION OF HEAT DIFFUSION FOR ACTIVE IRT DATA ANALYSIS – ANALYTICAL MODELLING AND EXPERIMENTAL TESTING IN A MULTI- LAYERED SYSTEM
	Catarina Serra, Nuno Simões, António Tadeu
329	AUTOMATIC DETECTION OF THERMAL BRIDGES IN THERMOGRAPHIC BUILDING INSPECTIONS
	Javier Cereijo, Susana Lagüela, D. Roca, J. Martínez, H. Lorenzo
464	DETERMINATION OF THE THERMAL TRANSMITTANCE OF MULTILAYER

340 CRITICALITY MATRIX IN THE EVALUATION OF CONSTRUCTION QUALITY IN THE BRAZILIAN SOCIAL HOUSING

Inês Simões, Nuno Simões, António Tadeu, Joana Riachos

Vanda A. G. Zanoni, Márcio A. Buson

14h40m-15h00m

15h00m-15h20m

15h20m-15h40m

15h40m-16h00m

14h00m-14h20m

14h20m-14h40m

14h40m-15h00m

15h00m-15h20m

15h20m-

15h40m

15h40m-

16h00m

		16:30-18:50
		TS19 – Sustainable and water efficient buildings
		Room: Lagoon I
	Chair	Armando Silva Afonso and Zuzana Vranayova
	ID	
16h30m- 16h50m	199	INNOVATIVE GREEN ROOFS FOR SOUTHERN EUROPE: BIOCRUSTS AND NATIVE SPECIES WITH LOW WATER USE
		Teresa Paço, Maria R. Cameira, Cristina Branquinho, Ricardo Cruz de Carvalho, Leena Luís, Dalila Espírito-Santo, Fernanda Valente, Carolina Brandão, Ana L. Soares, Adriana Anico, Francisco Abreu, Luís S. Pereira
16h50m- 17h10m	360	REPERCUSSION OF WATER IN THE SUSTAINABILITY OF A SINGLE FAMILY HOUSING
		Amantia Martínez Pérez, Francisco Javier López Rivadulla, Patricia Alonso- Alonso
17h10m- 17h30m	405	WATER EFFICIENCY POTENTIAL IN UNIVERSITY BUILDINGS: THE DECIVIL BUILDING OF THE UNIVERSITY OF AVEIRO
		Inês C. Meireles, Pedro Gonçalves, Vitor Sousa, Armando Silva-Afonso
17h30m- 17h50m	462	INTENSIVE GREEN ROOF PROJECT AND INSTALATION
		Paulo Palha
17h50m- 18h10m	009	THE EFFECTIVENESS OF AWARENESS TOOLS ON WATER USE EFFICIENCY IN UNIVERSITY HALLS OF RESIDENCE
		Charlie Wymer, Kemi Adeyeye, Dexter Robinson, Katherine Hyde
18h10m- 18h30m	461	ATTRIBUTES OF GREYWATER REUSE; WELL-CONTROLLED GREYWATER TREATMENT AND USER PERCEPTION
		Katherine Hyde, Matthew J. Smith, Kemi Adeyeye
		TS10 – Ecodesign and Certification Systems for Sustainable Buildings TS11 – Sustainable Rehabilitation of Buildings using Emerging Materials and Systems
		Room: Lagoon II
	Chair	Ana Sánchez-Ostiz and Marco Ludovico Marques
	ID	
16h30m- 16h50m	068	WINDOW ENERGY LABEL. AN EUROPEAN METHODOLOGY APPLIED TO THE ITALIAN CLIMATE CONTEXT.
		Emilio Antoniol

16h50m- 17h10m	159	INDOOR AIR QUALITY IN HOUSING: A MORE EXHAUSTIVE INTERPRETATION OF THE ISSUE
		Maria Antonia Barucco, Chiara Trojetto
17h10m- 17h30m	400	IMPLICATIONS OF THERMAL ENVELOPE RETROFITTING IN OTHER BUILDING REQUIREMENTS' PERFORMANCE
		Ana Sánchez-Ostiz, Brian J. Meacham , Silvia Domingo, Juan B. Echeverria, Purificación González
17h30m- 17h50m	073	ETICS WITH SUSTAINABLE MATERIALS FOR REHABILITATION OF SOCIAL HOUSING AT BOAVISTA QUARTER IN LISBON
		Nádia Lampreia, Maria Rosário Veiga, Sofia Malanho
17h50m- 18h10m	211	CONSERVATION OF SANDSTONE MONUMENTS: A NEW APPROACH IN CONSOLIDATION TREATMENTS
		Marco Ludovico Marques, Carlos Chastre
18h10m- 18h30m	307	SURVEYING OF SANDSTONE MONUMENTS: NEW AND TRADITIONAL METHODOLOGIES TO ASSESS VIABILITY OF CONSERVATION ACTIONS
		Carlos Chastre, Marco Ludovico-Marques, Juan Saumell, Manuel Guerrero, Manuel Delgado
18h30m- 18h50m	016	SUSTAINABLE MOVABLE EXTERNAL WALL CONSTRUCTION SYSTEM FOR FLEXIBLE SOCIAL HOUSING DESIGN IN UAE
		Khaled Galal Ahmed
		Khaled Galal Ahmed Refurbishment Preservation and maintenance of the built heritage
		Refurbishment
	Chair	Refurbishment Preservation and maintenance of the built heritage
	Chair ID	Refurbishment Preservation and maintenance of the built heritage Room: Lagoon III
16h30m- 16h50m		Refurbishment Preservation and maintenance of the built heritage Room: Lagoon III
	ID	Refurbishment Preservation and maintenance of the built heritage Room: Lagoon III Chris Murphy SAVING THE HOME SHOP: THE FUTURE OF SMALL EARTHQUAKE
	ID	Refurbishment Preservation and maintenance of the built heritage Room: Lagoon III Chris Murphy SAVING THE HOME SHOP: THE FUTURE OF SMALL EARTHQUAKE PRONE BUILDINGS IN NEW ZEALAND
16h50m 16h50m-	ID 058	Refurbishment Preservation and maintenance of the built heritage Room: Lagoon III Chris Murphy SAVING THE HOME SHOP: THE FUTURE OF SMALL EARTHQUAKE PRONE BUILDINGS IN NEW ZEALAND Chris Murphy Chris Murphy
16h50m 16h50m-	ID 058	Refurbishment Preservation and maintenance of the built heritage Room: Lagoon III Chris Murphy SAVING THE HOME SHOP: THE FUTURE OF SMALL EARTHQUAKE PRONE BUILDINGS IN NEW ZEALAND Chris Murphy FIRE SAFETY IN BUILDINGS - FACILITY MANAGEMENT
16h50m 16h50m- 17h10m 17h10m-	ID 058 076	Refurbishment Preservation and maintenance of the built heritage Room: Lagoon III Chris Murphy SAVING THE HOME SHOP: THE FUTURE OF SMALL EARTHQUAKE PRONE BUILDINGS IN NEW ZEALAND Chris Murphy FIRE SAFETY IN BUILDINGS - FACILITY MANAGEMENT Miguel Chichorro Gonçalves A HOLISTIC PRESERVATION AND MAINTENANCE OF THE BUILT
16h50m 16h50m- 17h10m 17h10m-	ID 058 076	Refurbishment Preservation and maintenance of the built heritage Room: Lagoon III Chris Murphy SAVING THE HOME SHOP: THE FUTURE OF SMALL EARTHQUAKE PRONE BUILDINGS IN NEW ZEALAND Chris Murphy FIRE SAFETY IN BUILDINGS - FACILITY MANAGEMENT Miguel Chichorro Gonçalves A HOLISTIC PRESERVATION AND MAINTENANCE OF THE BUILT HERITAGE: THE ROLE OF AN INTEGRATED METHODOLOGY

17h50m- 18h10m	332	VERNACULAR HERITAGE OF KARTEPE – KOCAELI: ENERGY EFFICIENCY AND CONSERVATION OF CIVIL ARCHITECTURE EXAMPLES
		Emre Kishali, T. Gül Köksal
18h10m- 18h30m	386	POST-OCCUPANCY EVALUATION OF URBAN SPACES IN UNIVERSITIES: A CASE STUDY IN CEFET-MG - BRAZIL
		Manfredo Frederico Felipe Hoppe, Maria Cristina Ramos de Carvalho
18h30m- 18h50m	442	CHERCHELL'S EARTH HOUSING ARCHITECTURE: ECOLOGICAL HERITAGE ARCHITECTURE IN AN ALGERIAN HISTORICAL COASTAL CITY Behiri Abdelkader
		TS01 - Sustainable Affordable Housing TS06 - Economics, Financing and Management, Building Design
		Room: Sunset I
	Chair	Barbara Rangel
	ID	
16h30m- 16h50m	362	EXPERIMENTAL CENTRE OF SUSTAINABLE HOUSING TECHNOLOGIES: 4TH POST-OCCUPANCY EVALUATION
		João Pedro Treviso, Guilherme Trevisan, Miguel A. Sattler, Muriel S. Froener, César R. Canova
16h50m- 17h10m	458	UNDERSTANDING SUSTAINABILITY THROUGH BRADFORD AFFORDABLE HOUSING LENS
		Amal Abuzeinab, C. Oltean-Dumbrava, Dave Dickens
17h10m- 17h30m	011	MANAGING INDOOR FACILITIES IN PUBLIC HOUSING TO IMPROVE ELDERLY QUALITY OF LIFE
		Mei-yung Leung, Jingyu Yu, Ali Memari
17h30m- 17h50m	141	HIGH RISE VS LOW RISE: DOES BUILDING TYPOLOGY MATTER IN HIGH DENSITY PROPERTY INVESTMENTS?
		Chiara D'Alpaos, Valentina Antoniucci, Giulano Marella
17h50m- 18h10m	351	CONVENIENCE IN FUNDING UPGRADING WORKS
		Rachele Perego
18h10m- 18h30m	107	ASSESSING BUILDINGS THERMAL BEHAVIOUR THROUGH THE DEFINITION OF ITS DIMENSIONAL TYPOLOGY
		Isabel Torres, Ana F. Ramos, Jose Mendes da Silva, Atefeh Salehi

		TS21 – New business models and innovative tools for future housing development
		Room: Sunset II
	Chair	Roberto Di Giulio
	ID	
16h30m- 16h50m	177	DEVELOPING A SUSTAINABLE HOUSING MARKETPLACE: NEW BUSINESS MODELS TO OPTIMISE VALUE GENERATION FROM RETROFIT
		Niall P. Dunphy, Eva Boo, Eve Dallamaggiore, John Morrissey
16h50m- 17h10m	275	CREATING VENDOR INDEPENDENT PARAMETRIC KNOWLEDGE USING CAD SYSTEMS
		Peter Bonsma, Ton Damen, Roberto Di Giulio, Klaus Luig
17h10m- 17h30m	333	S.O.S. SOCIAL OR SUSTAINABLE? THE AUSTRIAN PPP2 MODEL
		Chiara Tagliaro
17h30m- 17h50m	403	ORGANISATIONAL STRUCTURE, BUILDING CONCEPT AND FINANCIAL MODEL FOR SELF-ORGANISED HOUSING FOR ELDERLY PEOPLE
		Ton Damen, Hans Botman
17h50m- 18h10m	149	CSO HOUSING PLATFORM: CREATING A VIRTUAL PROCESS SUPPORT TOOL FOR THE INITIAL PHASE OF CSO HOUSING DEVELOPMENT
		Stan Klerks, J. Brouwer, B. Hasselaar, N. van Vliet
18h10m- 18h30m	446	AN INNOVATIVE INFORMATIONAL TECHNOLOGICAL PLATFORM MODEL FOR BUSINESS NETWORKING
		Nuno Biga, Vítor Abrantes, Pedro Frederico
18h30m- 18h50m	108	AGILE MANAGEMENT IN CONSTRUCTION - AGILECONSTRUCTION SYSTEM
		Manuela Cristina Timóteo Fernandes

Manuela Cristina Timóteo Fernandes

40th IAHS World Congress - Funchal

Detailed Programme of Parallel Sessions

09h40m-

10h00m

437

		09:00-10:40
		TS03 - Earthen Housing Construction
		Room: Lagoon I
	Chair	Paulina Faria
	ID	
09h00m- 09h20m	040	HIGROTHERMAL BEHAVIOUR OF EARTHEN PLASTERS FOR SUSTAINABLE HOUSING CONSTRUCTION
		Paulina Faria, Tânia Santos
09h20m- 09h40m	217	EARTHEN PLASTERS: THE POTENTIAL OF THE CLAYEY SOILS OF BARROCAL REGION IN ALGARVE.
		José Lima, Paulina Faria
09h40m- 10h00m	243	EXPERIMENTAL IDENTIFICATION OF KEY MECHANICAL PARAMETERS OF EARTH MATERIALS
		Champiré Florian, Antonin Fabbri, Jean-Claude Morel, Henry Wong
10h00m- 10h20m	352	CONTEMPORARY USE OF RAMMED EARTH IN PORTUGAL. THE CASE OF ALENTEJO COAST
		Joana Marques, Pilar Abreu e Lima, Clara Pimenta do Vale
10h20m- 10h40m	355	PROVIDE INSTRUCTIONS AND RESOURCES FOR ASSESSMENT AND TRAINING IN EARTHBUILDING - THE PIRATE PROJECT
		Stephan Jörchel, Lydie Didier, Rowland Keable, Paulina Faria
		Materials and Building Technology Hygrothermal performance of materials and building components
		Room: Lagoon II
	Chair	José Costa
	ID	
09h00m- 09h20m	096	ADVANCED TECHNOLOGY, QUALITY AND NATURAL MATERIALS EFFICIENCY IN THE MEDITERRANEAN CLIMATE
		Gian Piero Cossu, Gianraffaele Loddo, Daniela Ludoni, Marco Pittaluga, Eleonora Solinas
09h20m- 09h40m	397	CONTINUOS VAPOUR BARRIERS: TYPES AND CLASSIFICATIONS
		Carlos Alexandre Coutinho Mesquita, Alfonso García Santos, Javier Neila González

EXTERIOR INSULATION AND FINISHING SYSTEM USING MEDIUM

DENSITY ICB: MATERIAL CHARACTERIZATION

Maria do Rosário Fino, Nuno Simões, António Tadeu

10h00m- 10h20m	460	INSULATION CORK BOARD WATER PERMEABILITY
		Ricardo Almeida, António Tadeu, Nuno Simões
		TS23 – Efficient Architecture, including theoretical urbanistic issues, rehabilitation, conservation buildings and sustainable heritage
		Room: Lagoon III
	Chair	Adriana Matei
	ID	
09h00m- 09h20m	131	VISUALIZING PEOPLE'S PERCEPTION OF THE URBAN SPRAWL USING PANORAMIO DATA
		Mihai Racu
09h20m- 09h40m	294	PARTICULAR DEVELOPMENTS OF TWO UNESCO CITIES FROM EASTERN EUROPE – COMPARATIVE CASE STUDY: BANSKÁ ŠTIAVNICA, SLOVAKIA & SIGHIŞOARA, ROMANIA
		Alexandru Tiotiu, Adriana Matei
09h40m- 10h00m	365	TRANSITION SPACES WITHIN HOUSING
		Andreea Motu, Adriana Matei
10h00m- 10h20m	443	RESCUE BY CLASSIFYING, RESTORATION, RECONVERSION AND EXTENSION OF A "RURAL HOUSE" IN URBAN
		Adriana Matei, Tudor Matei
10h20m- 10h40m	444	ACTUAL TENDENCIES OF URBAN RESIDENTIAL EXTENSIONS IN ROMANIA
		Adriana Matei, Mihai Racu
		TS24 – Professional Education on Sustainable Housing Design
		Room: Sunset I
	Chair	Ulker Copur
	ID	
09h00m- 09h20m	075	TEACHING REAL ESTATE FINANCIAL ANALYSIS IN A DESIGN STUDIO CONTEXT: URBAN PLANNING AND ARCHITECTURE STUDIO IMPLEMENTATIONS Suzanne Lanvi Charles

 09h20m-09h40m
 090
 TEACHING SUSTAINABLE HOUSING DESIGN WITH REAL SCALE PROTOTYPES

Jo Ruoff

09h40m- 10h00m	116	TEACHING SUSTAINABLE BUILDING ENVELOPE DESIGN IN UNDERGRADUATE ARCHITECTURE EDUCATION THROUGH DESIGN STUDIO AND COMPANION COURSE LINKAGE Patrick Charles, William L. McQueen, Peter J. Romains
10h00m- 10h20m	218	THE IMPORTANCE OF INCLUSION OF COMPULSORY SUBJECTS RELATED TO ENVIRONMENTAL SUSTAINABILITY IN BUILT GRADE CURRICULUM COURSE OF CIVIL ENGINEERING AND ARCHITECTURE OF THE CITY OF SÃO PAULO
10h20m- 10h40m	263	Elisabeth M. F. Severo, Hipólito J. C. de Sousa, Ana V. Sá HOUSING, ARCHITECTURAL THEORY AND PRACTICE: EXPLORING THE UNIQUE ADEQUACY APPROACH IN HOUSING RESEARCH FOR COMMUNITIES IN NIGERIA

Joy Joshua Maina