

CONFERENCE PROGRAMME



10th International Conference on
Sustainable Development and Planning



Sustainable Development and Planning 2018

4–6 September, Siena, Italy

NOTES TO CHAIRMEN AND PRESENTERS

Chairmen must be in their respective rooms 10 minutes before the start of their session to meet with the presenting authors.

Authors must meet with the Chairman of their session 10 minutes before the start of the session.

This programme is subject to last-minute alterations, please refer to the conference noticeboard for the most up-to-date information.

Organised by:
Wessex Institute, UK
University of Siena, Italy

Supported by:
WIT Transactions on The Ecology and the Environment
International Journal of Sustainable Development and Planning

CONFERENCE PROGRAMME



Sustainable Development and Planning 2018
4–6 September 2018, Siena, Italy



Tuesday, 4th September 2018

08.00 Registration

09.00 Opening Addresses

Session 1

Chair: G. Passerini

- Invited:**
- 09:20 Ranking of energy saving devices for smart homes according to their payback time
A. Felderer, R. Brandtweiner & A. Holtl
- 09:40 Relationship between SDG framework and energy evaluation for an environmental assessment of 2030 agenda
M. Gigliotti, V. Niccolucci, M. Marchi, F. Gagliardi, F. M. Pulselli
- 10:00 Social networks, awareness and behavioural modification to reduce air pollution and carbon footprint: The Claircity project in Liguria Region
C. Trozzi, R. Vaccaro & M. Trozzi

REFRESHMENT BREAK

Following the break the conference will divide into two parallel sessions

MORNING PARALLEL SESSION "A"

Session 2A: Energy resources and savings

Chair: F. Pulselli

- 10:50 Energy transition for decarbonisation of urban neighbourhoods. A case study of Sevilla
R. M. Pulselli, M. Maccanti, M. Marrero, A. van den Dobbblesteen, C. Martin & N. Marchettini
- 11:10 Categorization and geo-localization of marine renewable energies for the Mediterranean Area
G. Goffetti, N. Patrizi, E. Neri, S. Magaudda, R. M. Pulselli & S. Bastianoni
- 11:30 Valuation of wind energy turbines using real option analysis with endogenous time to exercise
D. Greenberg, M. Byalsky & A. Yahalom
- 11:50 The distribution systems operator's role in energy transition: options for change
E. Zomerman
- 12:10 New energy delivery models for communities: how utilities can transform their delivery models to meet the needs of their stakeholders, short and long term
R. Sarfi, J. R. Shafer & L. A. Gemoets

LUNCH

MORNING PARALLEL SESSION "B"

Session 2B: Regional planning

Chair: R. Brandtweiner

- 10:50 An analysis of smart farmers' perceptions towards the ASEAN economic community
Y. C. Lin, D. Yotimart & A. Wongchai
- 11:10 Balancing equity and financial sustainability for the provision of safe water to all in small towns in Burkina Faso
C. Pezon
- 11:30 Integral landscape planning in The Netherlands: Lessons learned from the intentions and consequences
A. Tisma & J. Meijer
- 11:50 Airport neighbourhoods as future regional development areas for resource awareness and gestalt sustainability airport neighbourhoods
J. Forster & S. Pansinger
- 12:10 Keys for Sustainable Development at the Reconquista River Basin: learning from the past
E. M. Lopez Sardi

LUNCH

AFTERNOON PARALLEL SESSION "A"

Session 3A: Transportation

Chair: G. Passerini

- 14:00 A multi-criteria analysis as a rational evaluation process for new highway in Italy
A. Carten , I. Henke, F. Mallozzi, C. Moliterno
- 14:20 Autonomous vehicles in sustainable cities: more question than answers
A Szele
- 14:40 Spatio-temporal commuting pattern of university environment: Gender perspective
A. A. Busari, S. Oluwajana, A. Ede, J. Opeyemi & E. Adeyanju
- 15:00 University commuting trip pattern: Temporal assessment
A. A. Busari, J. Opeyemi, J. Oyedepo, O. A. Oluwole & J. Adediran

Additional presentation:

- 15:20 Study of morphological changes and sustainable development in the southern
Coasts of the Caspian Sea using remote sensing and GIS
S. A. Neshaei, P. A. Safaval, M. M. K. Zarkesh & P. Karimi

REFRESHMENT BREAK

Session 4A

Chair: S. Turgut

Part 1: Special session on Protection in Historical City Centres organised by S. Turgut

- 16:10 **Invited:**
Danger bells for cultural heritage in Istanbul
H. Berkmen & S. Turgut
- 16:30 The importance of management plans in the protection of cultural heritage:
Istanbul - historical peninsula example
H. Berkmen
- 16:50 Cultural heritage conservation and culture-led tourism conflict within historic site
in Beyoglu
A. E. Erbas

Part 2: Cultural and architectural heritage

- 17:10 **Invited:**
Cultural heritage as a driver for urban regeneration. Two processes in comparison
A. Boeri, G. Bortoli & D. Longo
- 17:30 Developing sustainable planning for heritage conservation in he tropics: A natural
risk and vulnerability assessment profile-GIS based for historic archives in Puerto Rico
J. Lugo Vega & D. Diaz

END OF DAY 1

AFTERNOON PARALLEL SESSION "B"

Session 3B: Environmental management

Chair: J. L. Miralles

- 14:00 Vulnerability assessment for resource management of a natural protected area
M. D. Verdugo, O. Arizpe & A. Gonzalez-Baheza
- 14:20 Conversion of various organic wastes into valuable materials using subcritical water treatment reactors
N. Nakagawa, N. Sugiura, M. Utsumi, K. Shimizu & T. Miyashiro
- 14:40 Prospective and sustainability of two natural protected areas of the less crowded state of Mexico, Baja California Sur
O. Arizpe, J. Juarez, P. Cruz & A. Torres
- 15:00 Degradation of veterinary antibiotics from slaughterhouse wastewater using titanium dioxide as a catalyst
M. N. Chollom, S. Rathilal, F. M. Swalaha & B. F. Bakare
- 15:20 The intersection of biophilia and engineering in creating sustainable, healthy and structurally sound built environments
C. Pozzuoli, E. Aye, D. Hackett

REFRESHMENT BREAK

Session 4B: Sust. solutions in emerging countries and in rural developments

Chair: M. Sepe

- 16:10 Inorganic components in different metropolis atmospheric particles caused from seasonal energy consumption between China and Japan
W. Wang & Q. Wang
- 16:30 Basic study on liquefied behaviour of decayed scrap of cultivation of mushroom
Q. Wang & S. Kawamura
- 16:50 Adoption of precision agriculture to reduce inputs, enhance sustainability and increase food production – A study of Southern Alberta, Canada
L. Nicol & C. Nicol
- 17:10 The disabled family in rural India: Empowerment of socially-able self
A. F. Karten

Additional presentation:

- 17:30 SPOOLS - Sustainable POOLS. Main developments of the project
M. J. Oliveira, A. Braga, A. Inverno, C. Santos, E. M. J. da Silva, F. Do Carmo et al.

END OF DAY 1

PARALLEL SESSION "A"

Session 5A: City planning

Chair: D. Longo

- 09:00 Urbanism and urban planning following the thought of Henri Lefebvre
T. V. Sa
- 09:20 Contextualising mobility variables
I. Froes, D. Tellgren & L. Noring
- 09:40 The consumption of chaos - From the charm of chaos to the tedium of order: the case of Christchurch, New Zealand before and after the central city post-earthquake rebuild
J. McDonagh, J. Bowring & H. Perkins,
- 10:00 Homelessness: A critical approach to architecture and planning
R. Johnson

REFRESHMENT BREAK

PRIGOGINE AWARD CEREMONY

10:45 Delegates walk to the Aula Magna of the University of Siena (short walk)

11:00 Prigogine Award Ceremony

The Prigogine Medal was established in 2004 by the University of Siena and the Wessex Institute to honour the memory of Professor Ilya Prigogine, Nobel Prize Winner for Chemistry.

Prigogine's ideas established the basis of ecological systems research. The Prigogine medal to honour his memory is awarded annually to a leading scientist in the field of ecological systems. All recipients have been deeply influenced by Prigogine's work.

The 2018 Medal is to be awarded to Professor Stuart Kauffman, former Professor at the Universities of Chicago, Pennsylvania and Calgary, and currently Emeritus Professor of Biochemistry at the University of Pennsylvania and affiliate faculty at the Institute for Systems Biology.

Professor Kauffman will present a special lecture on:
"A World Beyond Physics: The Emergence and Evolution of Life"

12:30 Delegates will return to the conference venue for lunch

PARALLEL SESSION "B"

Session 5B: Case Studies

Chair: R. Brandtweiner

- 09:00 Impact of the state support mechanism on the cost of renewable energy projects: The case of developing countries
G. Chebotareva
- 09:20 River antropization: case studies in Reggio Calabria (Italy)
R. Versaci, F. Minniti, G. Foti & C. Canale
- 09:40 Water infrastructure asset management—A comparative analysis of three urban water utilities in south Africa
S. Mnguni
- 10:00 The environmental and social role of semi-open spaces in vernacular architecture of the Eastern Mediterranean area. The case of Cyprus
M. Philokyprou & A. Michael

REFRESHMENT BREAK

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AFTERNOON PARALLEL SESSION "A"

Session 6A: Sustainability and the built environment

Chair: J. L. Miralles

- 14:00 Impact of the RCP 4.5 Climate change scenario on the bioclimatic potential of six European locations
M. Kosir, J. Potocnik & L. Pajek
- 14:20 Cradle to cradle regenerative design: from circular economy to sustainable construction
A. Kitriniaris
- 14:40 The future of historic buildings: retrofitting to improve the thermal performance of New Zealand architectural heritage
P. Besen & P. Boarin
- 15:00 Evaluating suitability by a GIS-AHP combined method for sustainable urban and environmental planning in Beykoz District, Istanbul
A. Akbulut, O. Ozcevik & L. Carton
- 15:20 Sustainable-driven adaptive reuse: Evaluation of criteria in a multi-attribute framework
D. Parpas & A. Savvides

REFRESHMENT BREAK

Session 7A: Sustainability and the built environment

Chair: D. Prokopiou

- 16:10 The implementation of life cycle analysis and six sigma method to achieve the sustainable water consumption in the agricultural sector
K. Kandananond
- 16:30 7 key factors needed to achieve sustainable built environments in low income settlements in South Africa
L. Ogunsanya
- 16:50 Passive adaptive strategies for the optimisation of comfort and energy demand in traditional and contemporary buildings in hot and humid climates
U. Dietrich & L. Garcia Rios

Additional presentation:

- 17:10 Evolution of socially sustainable supply chain management: a structured literature review
P. J. Chiesa & W. K. Przychodzen

END OF DAY 2

CONFERENCE DINNER—See conference coordinator for further information

Wednesday, 5th September 2018

AFTERNOON PARALLEL SESSION "B"

Session 7B: Community planning

Chair: S. Turgut

- 14:00 Anticipating the future of sustainability in qatar towards a roadmap for an effective stakeholders engagement in the context of rural settlements planning
N. M. Elgritly
- 14:20 ExGated: Interventions to mitigate the impact of the Mexican gated communities over territories and cities
T. Ascencio-Anaya, M. Caudillo-Plascencia, E. Ramirez-Garcia & E. Giorgi
- 14:40 Practical adaptations of ancestral knowledge for groundwater artificial recharge management of Manglaralto Coastal Aquifer, Ecuador
P. Carrion, G. Herrera & J. Briones
- 15:00 Wellbeing framework as a contributor of sustainability
N. S. Onay & V. Minucciani

REFRESHMENT BREAK

Session 6B: Special session on Livable and healthy city design organised by M. Sepe

- 15:50 **Invited:**
Livable and healthy design city
M. Sepe
- 16:10 The relationship between planning and the projects for urban regeneration: a pilot project called "A holistic strategy for the regeneration of peri-urban areas in the north-west area of Rome"
M. R. Schirru
- 16:30 National Park City = Salutogenic city?
T. Townshend, M. Roe, C. Davies & Q. Qin
- 16:50 Towards healthy urban design in a rationalist neighbourhood. A research methodology for the Monticelli quarter in Ascoli Piceno (Italy)
C. Camaioni, R. D'Onofrio, I. Odoguardi, E. Trusiani
- 17:10 Resilient Vejle - a case study
W. Unterrainer
- 17:30 Adaptive urban transformation - cities in changing health and wellbeing conditions
E. Rynska & K. Solarek

END OF DAY 2

CONFERENCE DINNER— See conference coordinator for further information

Thursday, 6th September 2018

MORNING PARALEL SESSION "A"

Session 8A:

Chair: V. Niccolucci

Part 1: Environmental policies and planning

- 09:00 Modelling potential tree belt functions in rural landscapes using a new GIS toolbox
M. Nowak & K. Pedziwiatr
- 9:20 Planning for sustainability in the Australian pulp and paper industry
W. J. Hurditch
- 09:40 Sustainable development in English planning policy: A lawyer's perspective
C. Bell

Part 2: Sustainable development indicators

- 10:00 Indicators engineering to land take control and settlement sustainability
A. Marucci, L. Fiorini, F. Zullo & B. Romano
- 10:20 Revisiting the triple bottom line
R. Isaksson

REFRESHMENT BREAK

The last session of the conference after the break will be a plenary session

Thursday, 6th September 2018

MORNING PARALEL SESSION "B"

Session 8B: Sustainable Tourism

Chair: O. Arizpe

- 09:00 **Invited:**
Tourist development and planning in Valencian Mediterranean coast: the case of La Devesa del Saler
J. L. Miralles i Garcia & F. Mart nez Llorens
- 09:20 **Invited:**
Tourism development of the Cyclades Islands: Economic, social and carrying capacity assessment of the consequences
D. Prokopiou, G. Mavridoglou, M. Toanoglou & B. Tselentis
- 09:40 Geotourism potential in the context of the geopark project for he development of Santa Elena province, Ecuador
G. Herrera, P. Carrion & J. Briones
- 10:00 Sustainable development and plan for tourism in the Mediterranean coastal areas. Case study: the Liguria Region
S. Candia, F. Pirlone & I. Spadaro
- 10:20 Tourism and strategic planning: Learning from the Chinese Province of Hainan to improve the Syrian Coastal Region
B. Dayoub, P. F. Yang, A. Dayoub & T. Barakat

REFRESHMENT BREAK

The last session of the conference after the break will be a plenary session

Thursday, 6th September 2018

Session 9: Case studies

Chair: G. Passerini

- 11:10 Implementing collaborative planning in the Swedish mountains. The case of Vilhelmina
T. Bjarstig, C. Thellbro, A. Zachrisson & J. Svenson
- 11:30 Evaluation of Urban Heat Island (UHI) for Puebla City, Mexico
K. M. Noh Abarca, C. Fernandez de Lara, A. Sanchez Hernandez & M. TeutLi Leon
- 11:50 Regional resilience-based natural resource management planning in Australia. The Namoi Catchment experience
F. Andreoni
- 12:10 Place, relationships, and community-controlled capital: On ecosystem-based innovation towards an Equitable Competitive Advantages Distribution, the Boston Ujima Project Case
C. Bevilacqua & Y. Ou
- 12:30 Livability and public space in Canberra's suburban developments
M. Muminovic

CLOSURE OF THE CONFERENCE BY GIORGIO PASSERINI

We hope you have enjoyed the conference and look forward to seeing you at the next meeting in the series, have a safe and pleasant journey home.