



International Conference on Energy & Sustainable Futures
(ICESF)

DTA Energy & Nottingham Trent University

9-11 September 2019

Day One: Monday 9 September 2019

Venue: NTU Conference Centre, City Campus, Nottingham, NG1 4BU

Time	Title	Session	Speaker/Chair	Location
09.00 - 09.15	ICESF CONFERENCE REGISTRATION AND REFRESHMENTS			Nottingham Conference Centre (NCC)
09.15 - 10.45	Reconvening workshop for DTA delegates	Networking event for conference delegates		NCC
10.45 - 11.00	Refreshment Break			NCC
11.00 - 11.15	Welcome from Professor Nigel Wright, DVC Research, NTU			NCC
11.15 - 11.15	Introduction to Conference from Professor Amin Al-Habaibeh, DTA Energy Director			
11.15 - 12.15	Keynote: Mark Woodward & Peter Anderberg The Smart City Alliance Developing Smart City Infrastructure			NCC
12.15 - 13.30	Lunch Networking, DTA Poster session; Images of Research Competition			Exhibition Area, Level 0, NCC
13.30	AFTERNOON SESSIONS			
13.30 - 17.00	<i>Conference Industrial Trip to one of the energy facilities in Nottingham, and Robin Hood will be our tour guide to take us to visit the Nottingham Castle and Caves</i>			
19.00 - 22.00	Social event	Informal social event for conference delegates		TBC



Doctoral Training Alliance



Please note that the above programme is correct as of 06 August 2019 but may be subject to change

Full details relating to location and rooms will be added nearer the time



Day Two: Tuesday 10 September 2019

Venue: NTU Conference Centre, City Campus, Nottingham, NG1 4BU

Time	Session	Session detail	Speaker/Chair	Location
09.00 - 09.30	Refreshments			NCC
09.30 - 10.00	Keynote Prof. Xudong Zhao Professor of Engineering, University of Hull Expert in sustainable building services, renewable energy and energy efficiency technologies			NCC
10.00 - 10.30	Keynote Prof. Tim Cooper Professor of Sustainable Design and Consumption, Nottingham Trent University Presentation title: Too much stuff! Why buying products leads to climate change			NCC
10.30 - 10.45	Refreshment break			NCC
10.45 - 11.40	Parallel Session 1	Session 1A Sustainability & Energy Policy	Session 1B Smart Grid & Network	
11.45 - 12.45	Parallel Session 2	Session 2A Building & Energy	Session 2B Electric Cars & Energy Storage	
12.45 - 13.45	Lunch Networking, DTA Poster session; Images of Research Competition			NCC
13.45 - 14.40	Parallel Session 3	Session 3A Artificial Intelligence & Condition Monitoring	Session 3B Biofuel and Bio-energy	
14.45 - 15.40	Parallel Session 4	Session 4A Health, Wellbeing and People's Behaviour	Session 4B Biofuel and Bio-energy	
15.45 - 16.00	Refreshment break			NCC
16.00 - 16.55	Parallel Session 5	Session 5A Sustainability and Energy Policy	Session 5B Enabling Technologies and Energy Conservation	
16.00 - 17.00	Training workshop	Workshop topic TBC		



19.30 - 22.00	Conference Dinner	Drinks reception, dinner and networking opportunity for conference attendees	Newton Building Central Court
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Day Three: Wednesday 11 September 2019

Venue: NTU Conference Centre, City Campus, Nottingham, NG1 4BU

Time	Session	Session detail	Speaker/Chair	Location
09.15-09.30	Refreshments			NCC
09.30-10.00	Keynote TBC			NCC
10.00-10.30	Keynote Prof. Richard Bull Professor of Architecture Design and the Built Environment, Nottingham Trent University His research involves enhancing environmental citizenship			NCC
10.30-10.45	Refreshment break			NCC
10.45-11.40	Parallel Session 6	Session 6A Sustainability and Energy Policy	Session 6B Smart Grid and Network	NCC
11.45-12.40	Parallel Session 7	Session 7A Sustainability and Energy Policy	Electric Cars and Energy Storage	NCC
12.45-13.45	Lunch Networking, DTA Poster session; Images of Research Competition			CC
13.45-14.40	Parallel Session 8	Session 8A Solar and Renewable Energy	Session 8B Simulation and Modelling	NCC
13.45-14.40	Parallel Session 9	Session 9A Artificial Intelligence and Conditioning Monitoring	Session 9B Heating Ventilation Air Conditioning and Refrigeration.	NCC
14.40-15.00	Refreshment break			NCC
15.00-15.30	Keynote & Closing Remarks Prof. Amin Al-Habaibeh, Dr Vladimir Vukovic & Dr Abhishek Asthana DTA Energy Directors Final words from the conference chairs and announcement of prize winners			NCC
15.45	Close of conference			



Conference Session Details

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<i>Session 1A</i> <i>Room: tbc</i> Session Name: Sustainability and Energy Policy Session Chair: tbc			
Time	Paper ID	Author(s)	Paper Title
10:45-11:40	Ab23	Andreas Andreou Peter Taylor Paul Brockway Zia Wadud John Barrett	Decomposing the drivers of residential space cooling consumption in EU-28 countries using a panel data approach
	Ab34	Mahdi Sadri, Seyed M. Shariatipour, Masoud Ahmadinia	How can statistical data analysis reduce the cost of energy production in the oil and gas industry?
	Ab46	Deepti Mahajan, Tim Cooper, David Smith	Comparative study of managers from companies with different focus on product longevity

<i>Session 1B</i> <i>Room: tbc</i> Session Name: Smart Grid and Network Session Chair: tbc			
Time	Paper ID	Author(s)	Paper Title
10:45-11:40	Ab15	Babatunde Giwa, Yehdego Habtay	Dynamic Performance of Tank-Circuited Grid-Connected 3-Pole PV-Based DC Microgrid under Stochastic DC Loads Distribution
	Ab31	Silviu Darie	Guidelines for Large Photovoltaic System Integration.
	Ab70	Nneka C. Daniel, Chris Bailey, Chunyan Yin and Stoyan Stoyanov	Coupled Capacity Fade Modelling of Lithium Ion Battery for Prognostics



<i>Session 2A</i> <i>Room: tbc</i> Session Name: Building and Energy Session Chair: tbc			
Time	Paper ID	Author(s)	Paper Title
11:45-12:55	Ab29	William Mounter, Nashwan Dawood, Huda Dawood	The impact of data segmentation on modelling building energy usage
	Ab27	Sherna Salim, Amin Al-Habaibeh and Ahmad Lotfi	The Effect of Insulation on Energy Savings in Residential Buildings
	Ab53	Anderson Akponeware, Nashwan Dawood, Sergio Rodriguez, Huda Dawood	The Role of BIM Level 3, Data Analytics and Visualisation Technologies in increasing Energy Efficiency for a rail station
	Ab62	G.Sfikas, A.Noula, J.Patacas, D.Ioannidis, D.Tzovaras	Building thermal output determination using visible spectrum and infrared inputs

<i>Session 2B</i> <i>Room: tbc</i> Session Name: Electric Cars and Energy Storage Session Chair: tbc			
Time	Paper ID	Author(s)	Paper Title
11:45-12:40	ab1	M. Anjum, K. Thanapalan, J. Williams	Neural network based models for online SOC estimation of LiFePO4 batteries used in Electric Vehicles
	Ab10	Law Torres Sevilla, Jovana Radulovic	Optimisation of low grade thermal energy storage systems with phase change materials
	Fp01	George Milev, Astley Hastings, Amin Al-Habaibeh	Investigating The Effect of Expanding The Use of Electric Cars On The Environment - A Case Study From Scotland



<i>Session 3A</i> <i>Room: tbc</i> Session Name: Artificial Intelligence and Conditioning Monitoring Session Chair: tbc			
Time	Paper ID	Author(s)	Paper Title
13:45-14:40	Ab3	Arijit Sen and Amin Al-Habaibeh	Categorisation of Thermal Insulation in Buildings Applying Point Heat and Combining Artificial Intelligence with Infrared Thermography
	Ab5	N. Bausch, J.I. Ahuir-Torres , A. Farrar , S. Webb , S. Simandjuntak , J.I. Ahuir-Torres , A. Nash , B. Thomas , J. Muna , C. Jonsson , D. Mathew	iWindCR: A remote corrosion detection and monitoring system for offshore wind turbine structures
	Ab6	Susan Augustine , J.P Ananth , S.Balakrishnan	SMART VISION WALLET FOR THE HEARING AND VISUALLY IMPAIRED
<i>Session 3B</i> <i>Room: tbc</i> Session Name: Biofuel and Bio-energy Session Chair: tbc			
Time	Paper ID	Author(s)	Paper Title
13:45-14:40	Ab16	Joshua Eardley and David J Timson	Yeast Cell Stress: impact on fermentation and methods
	Ab49	David J Timson and Joshua Eardley	Destressing yeast for higher biofuel yields
	Ab65	Supattra Maneein, John Milledge, Birthe Nielsen	Methane Yields from Anaerobic Digestion of Sargassum muticum Following Ethanol and Water Extractions



<i>Session 4A</i>			<i>Room: tbc</i>
Session Name: Health, Wellbeing and People's Behaviour			
Session Chair: tbc			

Time	Paper ID	Author(s)	Paper Title
14:45-15:40	Ab40	Ali Mohamed Abdi, Andrew Arewa, Mark Tyrer	Energy conservation in Old People homes and Excess Winter Deaths in the UK
	Ab75	Amin Al-Habaibeh, Latifimran Jalil, Ahmed Lotfi, and Bubaker Shakmak	A Novel Approach for the Evaluation of the Dynamic Thermal Behaviour of a Building by Continuous Monitoring using Autonomous Infrared Thermography
	Ab76	Ahmed Khalil , Spyridon Stravoravdis	The Role of Heritage-BIM in the Process of Energy Retrofitting of Heritage buildings - A Literature Review

<i>Session 4B</i>			<i>Room: tbc</i>
Session Name: Biofuel and Bio-energy			
Session Chair: tbc			

Time	Paper ID	Author(s)	Paper Title
14:45-15:40	Ab60	Nimra Shahab, Martin Howarth , Bipro Dubey	On-Site Development in Food Industry for Sustainable Utilisation of Food Waste
	Ab82	Supattra Maneein, John Milledge, Birthe Nielsen	Comparing Methane Yields of Washed and Unwashed Summer and Spring Harvested Sargassum multicum

<i>Session 5A</i>			<i>Room: tbc</i>
Session Name: Sustainability and Energy Policy			
Session Chair: tbc			

Time	Paper ID	Author(s)	Paper Title
16:00-16:55	Ab17	Daminabo Pokubo and Amin Al-Habaibeh	An investigation into Nigerian household energy consumption and the impact on environmental sustainability and human health
	Ab37	Yessica Arellan O. Haas , H. Ahmed,	IF CHEAP, EASY OIL IS OVER, WHAT NOW?



		A. Hunt and Lu Ma	
	Ab58	Madhu Madhavi, William J Nuttall	The Future of Clean Coal in India

<i>Session 5B</i> <i>Room: tbc</i> Session Name: Enabling Technologies and Energy Conservation Session Chair: tbc			
Time	Paper ID	Author(s)	Paper Title
16:-16:55	Ab57	F. Gerbino, R. Morgan, P. Atkins, K. Vogiatzaki	Assessment of modelling capability for numerical simulations for designing higher efficiency and lower emission systems (FPTitle : Virtual design based on CFD of high emission and zero emission systems)
	Ab59	Yasir Alani, Nashwan Dawood, Sergio Rodriguez, Huda Dawood	A review of Semantic Web Technologies and Linked Data, in facilitating the Whole Life Cycle (WLC) of information flow in the construction industry
	Ab63	Okorie Ukairo, Siaka Dembele, Ali Heidari, Konstantin Volkov and Jennifer Wen	CFD fire modelling in mechanically ventilated nuclear facilities



Conference Session Details

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<i>Session 6A</i> <i>Room: tbc</i> Session Name: Sustainability and Energy Policy Session Chair: tbc			
Time	Paper ID	Author(s)	Paper Title
10:45-11:40	Ab26	Angelica Rutherford	What is energy security doing with green energy development in Great Britain?
	Ab44	Reini Wirahadikusumah , Muhamad Abduh , Yunita Messah	Framework for Sustainable Procurement - Identifying Elements for Construction Works
	Ab08	Yesmeen Khalifa , Sharon George Philip Catney	Resources Management for Urban Sustainability in the Global South

<i>Session 6B</i> <i>Room: tbc</i> Session Name: Smart Grid and Network Session Chair: tbc			
Time	Paper ID	Author(s)	Paper Title
10:45-11:40	Ab14	Babatunde Giwa , Yehdego Habtay	Multi-Voltage Level Operation of DC Loads in a Grid-Connected 3-Pole PV-Based DC Microgrid
	Ab48	Kary Thanapalan , Ewen Constant, Mark Bowkett	Robust Controller Design for a Solar Powered Sustainable Energy System
	Ab81	Solomon Oyegoke, Yehdego Habtay, Marios Maniatopoulos , Panos Kotsampopoulos .	Dynamics of Inverter Droop and OLTC using Power Hardware in-the Loop (PHIL) Testbed



<i>Session 7A</i> <i>Room: tbc</i> Session Name: Sustainability and Energy Policy Session Chair: tbc			
Time	Paper ID	Author(s)	Paper Title
11:45-12:55	Ab13	Ahmed M A Mohamed, Sherifa M.I Elabar, Bubaker H M Shakmak, Amin Al-Habaibeh	Sustainable economy and energy in Libya: argument and utilisation
	Ab42	Radhika Sharma	India's clean energy transition while meeting the growing consumption
	Ab38	Tejasi Shah, Jyoti P Patil , V C Goyal	Development of Land Resources Inventory for a watershed in Bundelkhand Region, India
	Ab28	Zafrin Ahmed Liza, Korima Begum, Moni Paul	Promoting Sustainable Development Through Privatized Renewable Energy Plant: A case study on Teknaf solar power plant

<i>Session 7B</i> <i>Room: tbc</i> Session Name: Electric Cars and Energy Storage Session Chair: tbc			
Time	Paper ID	Author(s)	Paper Title
11:45-12:40	Ab30	Michael Castle , Rahifa Ranom , Giles Richardson , Jamie Foster	On the (dis)charge of LiFePO ₄ -based Li-ion battery electrodes
	Fp04	Elkezza Omar , Mohamed Mostafa, Khan Amir	Influence of graphite addition on the thermal performance of energy pile



<i>Session 8A</i> <i>Room: tbc</i> Session Name: Solar and Renewable Energy Session Chair: tbc			
Time	Paper ID	Author(s)	Paper Title
13:45-14:40	Ab66	Abhishek Asthana and Sanjay Mukherjee	Design, development, testing and evaluation of an innovative floating hydro generator
	Fp02	Muhammad Wakil Shahzad, Muhammad Burhan and Kim Choon Ng	Heating, Cooling and Desalination with Sustainable Renewable Energy
	Ab80	Hassan Mahmood	The Solar Thermal Power Generation System

<i>Session 8B</i> <i>Room: tbc</i> Session Name: Simulation and Modelling Session Chair: tbc			
Time	Paper ID	Author(s)	Paper Title
13:45-14:40	Fp03	N.Bezas, A.Noula, D.Ioannidis, D.Tzovaras, Tommaso Bragatto, Francesca Santori	Dynamic Clustering Mechanisms using forecasted input data
	Ab55	Sean Williams, Michael Short	Decentralised Automated Demand Side Response For Blocks of Buildings (FPTitle : Electricity Demand forecasting in Decentralised Automated Demand Side Response For Blocks of Buildings)
	Ab67	Yatin Suri , Christopher Pegg , Sheikh Zahidul Islam, Abhishek Asthana	Computational Fluid Dynamics Modelling to design and optimise Power Kites for Renewable Power Generation

<i>Session 9A</i> <i>Room: tbc</i> Session Name: Artificial Intelligence and Conditioning Monitoring Session Chair: tbc			
Time	Paper ID	Author(s)	Paper Title
14:45- 15:40	Ab21	Faisal Siddiqui, P. Sargent, N. Dawood, S. Rodriguez	Role of renewable energy methods for the development of structural health monitoring system
	Ab22	Andrew J. Kidd Jianyong Zhang Ruixue Cheng	A low-error calibration model for an electrostatic gas-solid flow sensor fusion obtained via machine learning techniques
	Ab61	Pascal A. Schirmer and Iosif Mporas	Evaluation of Power Consumption Signal Features in Non-Intrusive Load Monitoring

<i>Session 9B</i> <i>Room: tbc</i> Session Name: Heating Ventilation Air Conditioning and Refrigeration Session Chair: tbc			
Time	Paper ID	Author(s)	Paper Title
14:45- 15:40	Ab45	Miquel Banchs-Piqué, David J Hutchinson, Victor Becerra, Mark Gaterell	Using frequency-weighted sums to project data into future scenarios: the case study of heating systems
	Ab52	Akinkunmi Adegbenro, Michael Short	Supervisory Optimisation of HVAC Systems for Demand Response
	Ab43	Xinyu Zhang, Yunting Ge, Jining Sun	Performance analysis of the effects of inlet airflow patterns on finned-tube CO2 gas cooler for refrigeration systems using CFD