

# Session Co-Chair Bios

## Theme 1: Resilient Development



**Dr Ksenia Chmutina** is a Lecturer in Sustainable and Resilient urbanism at the School of Civil and Building Engineering, Loughborough University. Her main research interest is in synergies of resilience and sustainability in the built environment, including holistic approach to enhancing resilience to natural and human-induced threats, and a better understanding of the systemic implications of sustainability and resilience under the pressures of urbanisation and climate change. She is also interested in multi-hazard multi-stakeholder approaches to disaster risk reduction. She has an extensive experience of working on RCUK and EU-funded projects that focused resilience and sustainability of urban spaces in Europe, China and the Caribbean.

**Dr Yewande Akinola** is a Design Engineer. Yewande's engineering experience and responsibilities include the design of sustainable water supply systems and the engineering design coordination of large projects in the built environment. She has worked on projects in the U.K., Africa, Middle East and in East Asia. Yewande has won several awards including the UK Young Woman Engineer of the year (Institute of Engineering and Technology 2012), UK 35 Under 35 (Management Today's 35 Women Under 35 2013) and UK Outstanding Woman in STEM (PRECIOUS Award 2014.) Her professional specialties are water, design for manufacture and assembly project engineering and innovation management.



## Theme 2: Low-carbon development



**Prof Davide Mattia** is a Professor of Chemical Engineering at the University of Bath and a past Royal Academy of Engineering Research Fellow. His research is focused on environmental nanotechnology, the design of materials at the nanometre leading to large-scale processes that require fewer resources, produce less waste and consume less energy. The work of his research group is articulated around three areas, reducing the cost and energy consumption of water treatment processes; the development of environmentally sustainable industrial processes; and the direct conversion of carbon dioxide to chemicals and fuels.

**James Van der Walt** is a social entrepreneur and engineer. In 2011 he quit his job as a software engineer in Ireland striving to do something more meaningful with his life. In 2012 he moved back to South Africa and founded Ugesi Gold, a social business with the vision of giving the power of tomorrow to those who are powerless today. He took the basic premise of the business to Stellenbosch University to research the idea thoroughly. In 2013 he completed his masters in mechanical engineering specializing in renewable energy. The product of his thesis was the SolarTurtle. Today the first pilot is up and running in the rural Eastern Cape where it is providing electricity to a school with over 2000 students, none of whom have electricity at home.



## Theme 3: Connected development



**Dr Tung Duong** received his Ph.D. degree in Telecommunications Systems from Blekinge Institute of Technology (BTH), Sweden in 2012. In 2013 he joined Queen's University Belfast as an Assistant Professor. His current research interests include Internet of Things (IoT), smart-grid, physical layer security, energy-harvesting communications, and cognitive relay networks. He is the author or co-author of 220 technical papers published in scientific journals (110 articles) and presented at international conferences (110 papers). He currently serves in the editorial board for the IEEE Transactions on Communications, IEEE Communications Letters, IET Communications as well as serving as the Guest Editor on special issues of some major journals including IEEE Access, IEEE Wireless Communications Magazine, IEEE Communications Magazine and others. He was awarded the Best Paper Award at the IEEE Vehicular Technology Conference (VTC-Spring) in 2013, IEEE International Conference on Communications (ICC) 2014, and is a recipient of the prestigious Royal Academy of Engineering Research Fellowship (2015-2020)

**Robert Speicys Cardoso** is the founder of Scipopulis, a start-up that develops collaborative software for smart cities that provides real time transport data in developing cities. Developing cities very rarely have a public transportation monitoring infrastructure, and data collected and shared by passengers can effectively improve the quality of transportation data in those cities. He participated in the 2015 RAEng Leaders in Innovation Fellowship.



## Theme 4: Collaborative Development



**Dr Carlos López-Gómez** is the head of POLICY LINKS, the knowledge exchange unit of the Centre for Science, Technology and Innovation Policy (CSTI), University of Cambridge. Policy Links' mission is to develop new policy evidence, insights and tools building on the latest academic thinking and international best practice. Carlos has advised governments and international institutions including the UK Department for Business, Energy and Industrial Strategy (BEIS), the United Nations Industrial Development Organisation (UNIDO), the European Commission as well as regional governments and cluster organisations in Mexico, Spain and UK.

**Habil Ahmed Khan** was recently elected as the Vice President of the German Pakistan Chamber of Commerce and Industry (GPCCI) Islamabad Region (Jhelum to Peshawar). He is the Director of Operations at Welt Konnect Ltd, a subsidiary of the esteemed Transtech Group of Pakistan, one of the leading renewable Energy Project Developers of the Country. Under his leadership the Group has contributed substantially to the establishment of the Quaid-E-Azam Solar Park by the Government. The Group has also played a critical role in the development of the first batch of successful Wind Power Projects in Sindh as well as some of the largest Hydro Power Projects in Pakistan. They are involved with developing expertise for analysis and planning of the National Grid, Generation, Interconnection, Transmission, Dispatch and Distribution Networks acquiring top industry tools and software.



# Speaker and Participant Bios

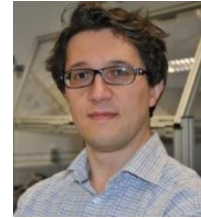
## **Ralf Bauer, University of Strathclyde**

I am a RAEng Engineering for Development Research Fellow at the University of Strathclyde. I received a Dipl.-Ing. in Mechatronics from the University of Erlangen-Nuremberg, Germany, in 2010 and a PhD from the University of Strathclyde in 2013. My research aims to develop miniaturised biomedical imaging systems using active micro-optics.



## **Gilberto Brambilla, University of Southampton**

Prof. Gilberto Brambilla obtained his MSc (Engineering) from Politecnico di Milano (Italy) and his PhD from the ORC, where he has been working since 2002. In 2007 he was awarded the Royal Society University-Research-Fellowship. He was director of the Centre-for-Innovative-Manufacturing-in-Photonics until 2015. He is currently deputy-director and general-manager of The-Future-Photonics-Hub.



## **Alex Brinkmeyer, Oxford Space Systems**

Alex is a Space KTP Associate and Technical Lead at Oxford Space Systems, an award-winning space technology business developing novel deployable structures. He completed an international secondment at the Graduate Aerospace Laboratories at Caltech, specialising in lightweight deployable structures. Alex currently leads a project at OSS developing next-generation flexible composites for space.



## **Vera Bukachi, University College London, ARUP**

Vera is a civil engineer and researcher with a richly mixed blend of industry, academic and development experience across three continents. Based at UCL's Centre for Urban Sustainability and Resilience, she is currently completing a doctorate investigating ICT innovation in WASH in Kenyan slums and lecturing in environmental engineering.



## **Fay Bull, AECOM**

Fay is an Associate at AECOM and leads a team of 20 flood risk management professionals. She is a flood risk management professional with specific experience in flood resilience, policy, funding and partnership working gained through varied roles in consultancy, the water industry and Local Government.



## **Dustin Caniglia, Concern Worldwide**

Dustin Caniglia is a specialist in resilience programme management and Chair of the Somalia Resilience Working Group. His background ranges from commercial cattle ranching in Arizona to large food security and resilience programmes in the Horn of Africa and South Asia. He currently manages the Building Resilient Communities in Somalia Programme for Concern Worldwide.



## **Tony Chan, CPG Consultants Pte Ltd**

With work experience in Malaysia, Australia, Hong Kong, China and the region, Tony was the founding member and leader of Arup's multi-disciplinary Planning, Development & Design team based in Shanghai for 10 years. He now leads the Integrated Strategies team for CPG Consultants based in Singapore. His expertise lies in integrating master planning and urban design with associated



strategies (Energy, Water, Transportation, Waste, Environmental, Social etc.) to address natural resource consumption.

**Vicky (Jinju) Chen, Newcastle University**

She has published 36 journal papers (5 editor invited papers) in top journals in her field such as Nanotechnology and Biophysical Journal. She is a Principal Editor for Journal of Materials Research. Her research area covers biomedical engineering, biofilms for wastewater treatment, microfluidics, bacteria-materials interactions, biofilm removal, and multiscale modelling.



**Daniel Cordeiro, University of São Paulo**

Dr. Daniel Cordeiro is an assistant professor in the School of Arts, Sciences and Humanities at University of São Paulo, Brazil. His main research interests include High Performance Computing on collaborative computational platforms. His current projects are related the efficient execution of HPC applications on Cloud Computing platforms.



**Sesinam Dagadu, tinyDAVID Ltd**

Sesinam believes we are all here to solve problems and make new things possible, and increasingly sees that the problems that engineers solve are rarely ever just about engineering and technology. Rather, they are about understanding people's the fears, hopes and aspirations. He dedicates his life to find the appropriate techniques, technologies and approaches to sustainably solve problems that people face every day.



**Leonardo Augusto de Vasconcelos Gomes, University of São Paulo**



**Marco Di Renzo, Univeristy of Paris-Sud**

Educated in Italy, Marco Di Renzo is now a faculty member in the Laboratory of Signals & Systems of Paris-Saclay University, France and a co-founder of the startup WEST, Italy. He is a Distinguished Visiting Fellow of RAEng and a Distinguished Lecturer of IEEE-VTS. He is the project coordinator of the ETNs 5Gwireless and 5Gaura.



**Mohammed El-Hajjar, University of Southampton**

Dr. Mohammed El-Hajjar is a lecturer in the Southampton Wireless in the Department of Electronics and Computer Science in the University of Southampton since January 2012. He has published a Wiley-IEEE book and in excess of 70 papers. His research focuses on the design of intelligent wireless communication systems.



**Luiz Fernando Bittencourt, University of Campinas**

Luiz is an Assistant Professor at the University of Campinas (UNICAMP), Brazil. He has been a visiting researcher in the University of Manchester, Cardiff University, and Rutgers University. He has been awarded with the IEEE Communications Society Latin America Young Professional Award 2013. His mains research is focused on resource management and scheduling in cloud and fog computing.





**Maria Chiara Ferrari, University of Edinburgh**

Maria-Chiara Ferrari is a lecturer in Chemical Engineering at the University of Edinburgh. She received her PhD from the University of Bologna, Italy. Since 2011 she established the research and experimental facilities for membranes for gas separation in Edinburgh. Her research focusses on carbon capture processes and natural gas purification with both experimental and modelling studies.



**Roberto Gallo, Kryptus Security**

Dr. Roberto Gallo works with security for 17 years, both in research and industry. At Kryptus, Roberto designed dozens of critical security systems. His research interests include cyber-physical systems, IoT, cryptography, and architectural-centric security. Roberto is a laureate of "Casimiro Montenegro Filho" award, by the Brazilian Presidency of Republic



**Katsu Goda, University of Bristol**

Dr Katsu Goda is a Senior Lecturer in Civil Engineering at the University of Bristol. His research is focused on catastrophic earthquake-related multi-hazard risk management from economic and societal viewpoints. He was awarded a 2011 Philip Leverhulme Prize, 2012 Charles F. Richter Early Career Award, a Humboldt Research Fellowship Award, and EPSRC-CRUST project.



**Deniz Gunduz, Imperial College London**

Deniz Gunduz is a Reader in Information Theory and Communications at Imperial College London. His research focuses on wireless communications, energy networks, and privacy. He is the recipient of an ERC Starting Grant, 2014 IEEE Communications Society Best Young Researcher Award, and Best Paper Awards at 2016 IEEE WCNC and 2007 IEEE ISIT.



**Rehan Hamid, Sindh Transmission & Dispatch Company**



**Tawfique Hasan, University of Cambridge**

Tawfique is an RAEng Research Fellow and a University Lecturer in Electronic Materials and Devices at the Cambridge Graphene Centre, Cambridge University Engineering Department. His current research focuses on the formulation of functional graphene and other nanomaterial inks for a wide range of printable and flexible applications. He has >70 research articles with ~9000 citations and an h-index of 32.



**Maryam Imani, Anglia Ruskin**

Maryam is a Chartered Civil Engineer who worked in industry as Civil Engineer before returning to academia. Currently, she is a Lecturer in Water Systems Engineering at Anglia Ruskin University. Her research interests include sustainability, resilience and optimisation of water & wastewater infrastructure, integrated modelling, system smartness and artificial intelligence.



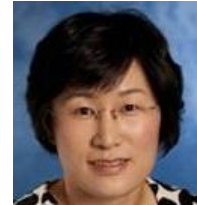
**Syed Muhammad Raza Kazmi, National University of Science and Technology, Pakistan**

Dr. Kazmi specializes in Power Electronics and Control System design for both Wind and Solar Energy Conversion Systems. His research interests involve innovative technologies and control intelligence for Energy & Water Efficiency, as well as the design of Electro-Medical and Electro-Surgical devices. Currently Dr. Kazmi is an Assistant Professor at US Pakistan Center for Advanced Studies in Energy, National University of Sciences and Technology Pakistan



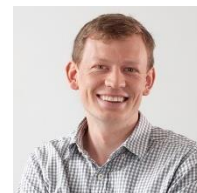
**Boksun Kim, Plymouth University**

Dr Boksun Kim is Associate Head of Civil Engineering at Plymouth University. Her research expertise includes steel construction and cementitious materials also incorporating graphene oxide. As a Chartered Structural Engineer and Vice Chairman of the IStructE Devon and Cornwall Regional Group, she is keen to promote structural engineering



**Willem Landman, TIA Helio100**

Willem is a co-founder of the TIA Helio100 project which aims to showcase an innovative low cost heliostat system for the Concentrating Solar Power (CSP) industry. He leads the design team which are in the process of bringing a novel solar collector system to the market.



**Martin Lavery, University of Glasgow**

Martin leads the Structured Photonics research group in the School of Engineering. This group focuses on the bridging the gap between Physics and Engineering to development new optical communications technologies, and enhanced remote sensing through the utilisation spatially structured waves.



**David Leal-Ayala, Reduse**

David Leal-Ayala (PhD) is an academic researcher, policy consultant and technology entrepreneur with interests in novel materials processing technology, industrial ecology and sustainability, knowledge transfer, and innovation and regional development policy. In 2013 he founded the company Reduse Ltd, a spin-out from Cambridge University, where he acts as Chief Scientist.



**Gonzalo Lizarralde, University of Montreal**

A specialist in planning, management and evaluation of urban and international architecture projects, Gonzalo Lizarralde is a professor at the School of Architecture at Université de Montréal. Dr. Lizarralde is director of the IF Research Group (grif), and the leader of the Disaster Resilience and Sustainable Reconstruction Research Alliance. He is a founding member of i-Rec, an international network of specialists in Disaster Risk Reduction.



**David Lopez-Perez, Bell Labs**

David is Senior Research Scientist at Nokia Bell Labs, where he has made significant contributions to the development of small cell technology and pioneered cellular/Wi-Fi interworking techniques. His research resulted in product development as well as 1 book, 30 journal papers, 60 conference papers and 30 filed patent applications.



**Fleur Loveridge, University of Leeds**

Fleur is interested in two main research themes connected to sustainability and resilience. The first is how we can use the ground and civil engineering structures constructed within the ground to act as stores of thermal energy for sustainable heating and cooling. The second is resilience and adaption of earth and geotechnical structures in the face of climate change.



**Mbali Mabaso, Engineers Without Borders**

Mbali was involved with Engineers Without Borders (EWB) from 2011 at the University of the Witwatersrand, joining the national committee of Engineers Without Borders (EWB) South Africa as the Head of Young Professional Membership until 2015. She is currently undertaking a Masters at Stellenbosch University investigating how to model renewable energy technologies for the South African energy system at a national and municipal level.



**Kristine Mae Magtubo, UP National Telehealth Centre, Philippines**

Kristine is a doctor, innovator, and advocate who works at the University of the Philippines National Telehealth Center at using technology to improve public health and reduce health inequity. She leads the largest eHealth research program in the Philippines – the RxBox – which deploys a turn-key solution for better care in remote primary care facilities.



**Marcelle McManus, University of Bath**

Marcelle McManus is a senior lecturer in the Department of Mechanical Engineering at the University of Bath. My research interests Include investigating the life cycle environmental impact of various products and systems, primarily related to renewable energy and water related products, and also improving LCA and creating better ways to measure environmental impact.



**Jan Mol, University of Oxford**

After receiving a PhD from the Delft University of Technology in applied physics in 2012 he worked at the University of New South Wales before joining the University of Oxford in 2013. His research focusses on charge transport through single atoms and molecules, with a specific interest in genome sequencing.



**Fernando Montalvo**

Fernando is the CEO of Protodigits, and previously worked as an advisor to the Government of Ecuador. He is a mechanical engineer, specialized in structures and machine design with 12 years of experience in this field. Economist with concentration in development economics with 3 years of experience in public policies oriented to the industrial and technological development of Ecuador.



**Ana Namburete, University of Oxford**

As a biomedical engineer Ana’s work comprises collaborations with medical professionals to identify problems relevant to prenatal care in low-income settings, and designing the appropriate engineering solutions. Specifically, her interests lie in developing data analytics and machine learning tools to enhance the diagnostic value of ultrasound image data.



**Elizabeth Lwanga Nanziri, University of Cape Town**

Elizabeth has a PhD in Economics and is the Director of Communications of the Association for the Advancement of African Women Economists (AAWE) and a Director of AAWE-South Africa. her research focuses on financial literacy, financial inclusion and welfare for households, and access to finance for small and medium enterprises. She also has extensive experience in the private sector, including 8 years as the Executive Director of the South African Savings Institute.



**Boris Ochoa, Imperial College London**

Boris Ochoa is a researcher in the Department of Civil and Environmental Engineering at Imperial College London. His research focuses on the interface between hydrological process understanding, water resources management, and sustainable development. He has almost 5 years of professional experience in South America, and received both the Letitia Chitty Centenary Memorial and Victor Appleby prizes for academic excellence at Imperial



**Muyiwa Oyinlola, De Montfort University**

Muyiwa is committed to research and development of low carbon technologies that will contribute to bridging the wide global energy gap. His research focuses on applications such as affordable sustainable energy solutions for developing countries and zero carbon homes. He has worked on designing and developing off grid renewable energy solutions for residential and agricultural sectors.



**Paolo Paoletti, University of Liverpool**

Paolo is a Lecturer in Control at the University of Liverpool. His research focuses on nonlinear dynamics and control, with a special interest on challenges sitting at the boundary between different disciplines such as biology, robotics, mathematics and physics. In 2014 he was awarded the EPSRC "Rising Star" award.



**Ioannis Papakonstantinou, University College London**

Ioannis obtained his PhD in Optical Interconnects from UCL in 2008. He worked for Sharp Laboratories of Europe and CERN – European Organisation for Nuclear Research before joining UCL again as a Lecturer in 2011. He is an ERC starting grant holder in the area of smart, thermochromic windows and a member of EPSRC's Early Career Forum in Advanced Manufacturing.



**Morwesi Ramonyai, Borena Energy**

Morwesi is an impact entrepreneur with a passion for advancing renewable energy for productive use as a solution to the energy poverty problem. She is an experienced Renewable Energy Developer & Businesswoman. Her latest innovation, Watt-A-Woman seeks to achieve economic inclusion of rural women as co-owners of community based mini-grids



**Jasmine Riley, University of York**

Jasmine has had the privilege to work in Kosovo, Afghanistan, Timor-Leste, South Sudan, Iraq, Palestine, and Sierra Leone. Her contributions involved activities toward democratic development, emergency response to the Ebola virus disease outbreak followed by health system strengthening. Her greatest asset is the ability to apply herself to change while bringing positive results.





**Thomas Rogers, University of the West Indies**

Tom is a lecturer in renewable energy at The University of the West Indies, Cave Hill Campus, Barbados. He is involved with helping to increase the sustainable energy teaching and research capacity in the Caribbean region. His research explores transitioning small island states towards 100% clean energy systems.



**Jo Rose, University of York**

Jo has worked intensively in Complex Political Emergencies including Liberia, Somalia and South Sudan. Throughout her career she has worked within and between academia and policy and practice in disasters, conflicts and uneven development. Her ongoing work focuses on the collaboration between communities and humanitarian agencies to promote resilient and sustainable interventions in disasters and conflicts.



**Adrien Schmid-Kieninger, MENA & APAC**

Adrien Schmid-Kieninger is Director MENA & APAC at ENERGIA ALJAVAL, a Greenfield developer of PV power plant projects in emerging markets. He is multilingual and since 15 years in the REN industry. Adrien is a fellow of ESCP Europe after having been trained as an Engineering Officer in the German Navy.



**Samantha Stratton-Short, ARUP**

Samantha leads the research and innovation work in Arup International Development building on her background in environmental design, architecture and social science research. She has nearly 20 years' experience as a programme manager as well as adviser on governance and organisational strategy in various countries including India, Sri Lanka, Pakistan, Bangladesh, Thailand, Vietnam, Ghana, Uganda, and Haiti.



**Becci Taylor, ARUP**



**Philipp Thies, University of Exeter**

Philipp is a Senior Lecturer in Renewable Energy at Exeter university. His research interests include system reliability modelling and statistical methods, offshore energy engineering and physical testing. He is PI on an EPSRC Newton Fund with China.



**Anh Tran, Coventry University**

Dr Anh Tran is a Senior Lecturer of Humanitarian Engineering at Coventry University. She is the head of research of the UNESCO UNITWIN Network in Humanitarian Engineering. Her research interests include humanitarian technology, with a focus on water, sanitation, renewable energy, waste management, humanitarian 3D-printing, drones, social entrepreneurship and education.



**Thomas Vetter, University of Manchester**

Dr Thomas Vetter is a chemical engineer with degrees from ETH Zurich (BSc, 2007, MSc 2008, PhD 2012) and conducted a postdoctoral stay in Eli Lilly & Company and UC Santa Barbara. Since September 2014 he is a lecturer at the University of Manchester and since August 2016 RAEng research fellow. His research interests are particulate processes with current projects in crystallization, filtration, and spray drying which are applied to a variety of materials (especially pharmaceuticals, agro and fine chemicals)

**Tingting Zhu, University of Oxford**

Tingting is a post-doctoral researcher with the CHI Lab in the Institute of Biomedical Engineering at the University of Oxford. Her current research, funded by the NIHR and the EPSRC, investigates the development of Bayesian methods for understanding complex patient data acquired from sensors in a resource-constrained setting. Tingting was an ARM scholar working with the Oxford's Centre for Affordable Healthcare Technology, and has experience in m-Health, having coordinated a collaborative project between China Mobile and University of Oxford.

