

# Theme 4: Collaborative Development

## Abstract:

The aim of this session is to discuss the role of engineering and engineers in driving collaborations to tackle 'grand challenges' affecting international development. Emphasis will be made on the role of collaborations between engineers and specialists from other disciplines; between developed and developing countries; and among academia, industry and government.

Global 'grand challenges' demand new solutions that no single discipline, industry or actor can provide in isolation. In particular, challenges faced by developing countries – from infrastructure upgrading, power and water supply to technical training and industrial policy development – underlie the need for enhanced international collaborations. Engineers have a key role to play as translators of science know-how into practical solutions, developers of technological solutions that are commercially viable, and bridges among scientists, industrialists and policy makers. This session encompasses three themes: (a) existing and new upcoming policies for collaborative development, (b) the role of the private sector in collaborative development, and (c) academia-industry-government partnerships for collaborative development.

## Session Co-Chairs:



**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.



## Speakers:

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



**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

**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.



**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.