



## ESED 2013 Successfully Closed in Guangzhou, China

**Quick Take:** *International Conference on Engineering for Sustainable Energy in Developing Countries (ESED 2013) was held in Guangzhou, China on September 6-7. The conference was hosted by the Committee on Energy of World Federation of Engineering Organizations (WFEO-ESC), and focused on how energy engineering can make difference in achieving a sustainable future in developing countries. With the theme of “Toward a Sustainable Future”, the conference was attended by over 200 delegates from Asia, Europe, North America, and South America.*



The International Conference on Engineering for Sustainable Energy in Developing Countries (ESED 2013) was held in Guangzhou on Sept. 6-7, 2013. The conference was hosted by the Committee on Energy of World Federation of Engineering Organizations (WFEO-ESC), and jointly organized by the Chinese Society of Electrical Engineering (CSEE) and China Southern Power Grid (CSG), sponsored by China Association for Science and Technology (CAST) and the Hong Kong Institution of Engineers (HKIE) and supported by UNESCO. With the theme of “Toward a Sustainable Future”, ESED 2013 was attended by over 220 delegates from China, USA, Germany, France, Sweden, Japan, Zimbabwe, Hong Kong and Taiwan who discussed effective ways to respond to energy shortage and environmental crisis and gave suggestions on sustainable development of energy.

ESEDC 2013 ran for two days and was featured with 2 keynote sessions, 8 panel discussions and women engineers' forum.

## Opening Ceremony

At the opening ceremony on Sept. 6, the conference was officiated by Mr. Samuel W. Grossman, Vice President of WFEO and President of WFEO-ESC. Mr. ZHANG Qin, Secretary of CAST; Mr. WANG Liangyou, Vice President of CSG; Mr. YANG Kun, Chief Engineer of National Energy Administration; Mr. CHAN Raymond K. S., President of HKIE and Mr. ZHOU Ling, Deputy Secretary General of Guangzhou Municipal Government gave their congratulating speeches at the ceremony. The Opening Ceremony was chaired by Mr. Michael Michaud, Secretary-General of WFEO-ESC.



(L to R, Up to Down: Mr. Samuel Grossman, Mr. ZHANG Qin, Mr. WANG Liangyou, Mr. YANG Kun, Mr. CHAN Raymond K. S., Mr. ZHOU Ling, Mr. Michael Michaud)

### **Quotation:**

*“The sustainable development can’t go without full rational utilization of renewable energy sources. The utilization of the renewable energy sources has direct relationship with attainment of national strategic goal of sustainable development and everyone’s living quality and health condition.”*

*Mr. ZHANG Qin, Secretary of CAST*

*“The current and future focuses of CSG are dispatching system, energy saving and energy storage and CSG is striving to develop smart, green and reliable power grid for China.”*

*Mr. WANG Liangyou, Vice President of CSG*

*“New energy and renewable energy are the important part of strategic emerging industry. Now China is making efforts to build a resource-conserving and environment-friendly society, adjust and optimize energy mix and promote diversified and sustainable development of energy.”*

*Mr. YANG Kun, Chief Engineer of National Energy Administration*

*“Faced with the current situation, engineers have the responsibility to create better life for the next generation.”*

*Mr. CHAN Raymond K. S., President of HKIE*

*“As the forefront of China’s reform and opening-up, Guangzhou is actively exploring the way to transform from energy-consuming society to energy-conserving society and fostering development of renewable energy and strives to increase the proportion of new energy in the energy mix to 15%.”*

*Mr. ZHOU Ling, Deputy Secretary General of Guangzhou Municipal Government*

## Keynote Sessions

There were two keynote sessions in the morning of Sept. 6 and Sept. 7 when 11 speakers delivered their speeches. “Sustainable development” is the subject matter that appeared most frequently and on which domestic and foreign experts reached consensus. The two keynote sessions were chaired by Prof. ZHOU Xiaoxin, Academician of Chinese Academy of Sciences (CAS), and Mr. Samuel Grossman respectively.

### Presenters and titles of keynote speeches

No.	Name of Speaker	Title of Presentation
<b>Keynote Session 1</b>		
<b>Chair: Prof ZHOU Xiaoxin</b>		
1	Ms. Maria Jesus Prieto Laffarguen	To promote sustainable development: the mission of a world engineer’s organization
2	Ms Hala Razian	Low Carbon Green Growth Roadmap—Turning resources constraints and the climate crisis into economic growth opportunities
3	Mr. GONG Ke,	Information communication technology and sustainable energy
4	Mr. Jorge Spitalnik	Nuclear power in a sustainable energy mix
5	Ir Prof. POON Wai Yin Paul/ Ir Dr. CHAN Fuk Cheung	Improving the resilience of energy system in developing countries
6	Queen Mother Dr. Delois Blakely	Sustainability and viability of energy system in developing countries
<b>Keynote Session 2</b>		
<b>Chair: Mr. Samuel Grossman</b>		
7	Prof. ZHONG Yixin	IT for Sustainable Energy
8	Mr. MOU Guangfeng	Roadmap of urbanization and energy security

9	Mr. Vilas Mujumdar	Developing Resiliency against Natural Hazards for Electrical Power Disruptions- Challenges -
10	Prof. Shintaro Furusaki	Toward stable supply of electrical energy following the March 11 Earthquake
11	Prof. MAO Yushi	New energy and economics



(L to R, Up to Down: Ms. Maria Jesus Prieto Laffarguen, Ms Hala Razian, Mr. GONG Ke, Mr. Jorge Spitalnik, Ir Dr. CHAN Fuk Cheung , Queen Mother Dr. Delois Blakely)

**Quotation:**

*“Engineers not only build roads and bridges for the world, but also change the world stepwise. Therefore, engineers around the world should strengthen exchange and make a concerted effort to realize sustainable development by applying correct technologies.”*

*Ms. Maria Jesus Prieto Laffarguen, Past President of WFEO*

*“Asian and Pacific countries must transform the mode of pursuing quantity to the green mode of emphasizing more on quality and bring new opportunities to economic development.”*

*Ms. Hala Razian, Economic Affairs Officer at United Nations ESCAP*

*“As power consumption gradually increases, ICT has become the important tool to foster sustainable energy development and will play a more important role in the future.”*

*Prof. GONG Ke, President of Nankai University*

*“Facing energy shortage, we must use all possible resources to meet the needs of development. Renewable and nuclear energy can make energy supply grow at the fastest rate.*



*Now, what each country should do is to upgrade its existing infrastructures and continuously innovate and renovate them in response to the disasters caused by environmental change.”*

*Mr. Jorge Spitalnik, WFEO-UN Relations Committee*

*“Efforts are needed to optimize energy use and justify its required usage to improve our quality of life and to keep our planet livable for our future generations.”*

*Ir Prof. POON Wai Yin Paul, CLP Power Hong Kong & Ir Dr. CHAN Fuk Cheung, HKIE*

*“The sustainability and possibility of energy system in developing countries relies on international cooperation.”*

*Queen Mother Dr. Delois Blakely, New Future Foundation*



(L to R, Up to Down: Prof. ZHONG Yixin, Mr. MOU Guangfeng, Mr. Vilas Mujumdar, Prof. Shintaro Furusaki, Prof. MAO Yushi)

*“The role of IT in sustainable development is shown in many aspects, such as energy management, product export and new energy exploration. In future, we must develop on the basis of IT.”*

*Prof. ZHONG Yixin*

*“Low-carbon and energy-conserving should be valued with high priority in China’s urbanization.”*

*Mr. MOU Guangfeng, Ministry of Environmental Protection of PRC*

*“Power grid should be smart enough to accept new energy to respond to the possible accidents.”*

*Mr. Vilas Mujumdar, Vice -Chair, Disaster Risk Management Committee - WFEO*

*“It will be possible to establish the low-carbon society by 2020 by introducing solar cells and other natural energies. The scenario to establish the “best mix” of energy sources is shown. In this context, effort of energy saving is effective and inevitable.”*

*Prof. Shintaro Furusaki, Tokyo University*

*“Energy price distortion not only lowers efficiency, but also damages the environment.”*

*Prof. MAO Yushi, President of Unirule Institute of Economics*

## Panel Discussion Sessions

At the Panel Discussion Sessions, under the lead of moderators, delegates from difference regions came together to share their insight on discussion topics under eight major themes.



(A view of panel discussion)

### Topics of panel discussions

No.	Topic of Panel Discussion	Moderator
1	Natural Impact and Strategy of Solar and Wind Energy	Mr. SHI Pengfei
2	Roadmap of China's Nuclear Energy Industry	Mr. YU Zhuoping
3	Green Construction, Energy-efficient Housing	Prof. LIU Xila
4	Future Transportation in Cities	Ir Dr. Edward W. C. LO
5	Clean Coal Technology and Practice	Mr. WANG Yueming
6	Advanced Energy Technology	Mr. Daniel Favrat
7	Air Pollution—Causes, Facts and Mitigation	Prof. GAO Xiang
8	Distributed Energy System—Efficiency, Economic & Diversity	Ir Dr. CHAN Fuk Cheung

## Women Engineers' Forum

In the afternoon of Sept.7, a special Women Engineers' Forum was held. Based on their study and working experience, 5 speakers discussed how to promote the role of women engineers in the global context and expressed their confidence in and resolution of changing the world and promoting intellectual industry as woman and engineer. The forum was chaired by Ir Leung Man Yee Mandy of HKIE.



(L to R, Up to Down: Ms ZHAO Jie, Ms Betty Shanahan, Ms CHEN Chen & Ms LEUNG Man Yee Mandy, Ms Annika Viklund, Ms FENG Liwen, Ms LI Ruomei, group photo of the forum)

### Topics of women engineers' forum

No.	Topics	Speaker
1	My Perspective on Career Development of Female Engineer	Ms ZHAO Jie
2	Changing the World – As Women and As Engineers	Ms Betty Shanahan
3	Women in Engineering – Equal Right & Equal Duty	Ms CHEN Chen
4	Towards being a smart energy enabler - meeting customers' expectations on the energy market	Ms Annika Viklund
5	China Energy Net & China 5e	Ms Feng Liwen

## Technical Visit

On Sept. 8, delegates visited the distributed energy station in Guangzhou Higher Education Mega Center. It is the largest one operated in China currently, covering an area of 110,000 km<sup>2</sup>. The distributed energy station in Guangzhou University City has realized an integration of power generation, cooling and heating. With natural gas as primary energy, the energy station has achieved "temperature matching and cascade utilization".

Main plant of the energy station

Find more information and reports on:

[http://www.csee.net.cn/data/zt\\_esedc2013/index.html](http://www.csee.net.cn/data/zt_esedc2013/index.html)

