### Short Biography & Abstract of Keynote Speakers or Lecturers for the AC21 International Graduate Summer School (AC21 IGSS)

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<th><strong>Name:</strong></th>
<th>Ronghou Liu</th>
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<td><strong>Position:</strong></td>
<td>Professor &amp; Supervisor of PhD student, Director</td>
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<td><strong>Affiliated institution:</strong></td>
<td>Biomass Energy Engineering Research Centre, School of Agriculture and Biology, Shanghai Jiao Tong University, P.R. China</td>
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#### Short Biography:

**Ronghou Liu,** Ph.D, Professor of Department of Resource and Environment, School of Agriculture and Biology, Shanghai JiaoTong University, P.R. China. He has done teaching, research and training work in the filed of renewable energy science 1984. At present, he is executive member of Chinese Renewable Energy Society; He is editorial board members of five EI journals such as 《International Journal of Global Energy Issues》, 《Transaction of the CSAE》, etc. He studied at Tsukuba International Centre of JICA, Japan in 1995. He worked at Department of Thermal Science and Energy Engineering at University of Science and Technology of China within 1997-1999 as a post doctoral researcher. He did research at Bio-energy Research Group of Aston University, UK within 2000-2001. He did research at Cornell University, USA as an invited professor for 20 months within 2009-2012. Professor Liu has had a lot of experience in conducting International and National research projects in the field of biomass energy. He published 7 books as an editor–in–chief and more than 60 papers in SCI and EI journals. His main research field is Biomass Energy Engineering including biomass pyrolysis, bioethanol, biogas, etc.

#### Title of your keynote speech/lecture:

Research and development of biomass energy

#### Abstract of your keynote speech/lecture:

Biomass energy will play an important role in energy system. The biomass conversion technologies including direct combustion, thermal chemical conversion technology, biological conversion technology are described. In addition, biomass pyrolysis for bio-oil production technology including rotating cone reactor, fluidized bed reactor, property of bio-oil is introduced. Furthermore, a case study of biomass gasification technology is presented. Moreover, bio-ethanol from sweet sorghum, biogas-greenhouse ecosystem technologies are presented.

#### Keywords:

- Biomass energy
- pyrolysis
- bio-oil
- ethanol
- biogas