

# FRENS

*Future Reliable Renewable Energy Conversion Systems & Networks*

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## Agenda for Second FRENS Flagship Seminar (Hangzhou, Sept.20-22, 2010)

### **Seminar Location: ShaoYiFu Science Building**

Address: Yuquan Campus, Zhejiang University, Hangzhou

Tel: +86-571-87951547

### **Accommodation Location: Lily Hotel**

Address: 156 Shuguang Road, Hangzhou

(about 10 minutes walking distance from Yuquan Campus of ZJU)

Tel: +86-571-87991188

Fax: +86-571-87991166

www.lilyhotel.com

### **Agenda**

*19th September, 2010 (Sunday)*

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| <b>12:00 – 24:00</b> | <b>Check in &amp; Registration</b> ( <i>Lobby of Lily Hotel</i> ) |
| <b>18:30 –</b>       | <b>Welcome Reception</b> ( <i>Lily Hotel</i> )                    |

*20th September, 2010 (Monday)*

### **Session Chair: Prof Xiangning He**

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| <b>8:30 – 8:35</b> | <b>Welcome Message from College of Electrical Engineering, Zhejiang University</b> |
| <b>8:35 – 8:45</b> | <b>Message from the RCUK China Office</b>  |
| <b>8:45 – 8:50</b> | <b>Message from the NSFC</b>   |
| <b>8:50 – 9:10</b> | <b>Message from Mr. James Rawlins</b><br>(UK government )                          |

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| 9:10 – 9:30   | <b>The Current Reliability of Wind Turbines</b><br>Prof Peter John Tavner (Durham University)  |
| 9:30 – 10:00  | <b>Group Photo &amp; Coffee Break</b>  |
| 10:00– 10:25  | <b>The Progress of Superconducting Power Technology in China</b><br>Prof Liye Xiao (Institute of Electrical Engineering (CAS))                                     |
| 10:25 – 10:50 | <b>Electrothermal Modelling for Converter Reliability</b><br>Mr. Peter Wyllie (Durham University)  |
| 10:50 – 11:15 | <b>Grid Friendly Power Conversion for Reliable Renewable Energy</b><br>Dr Yunfeng Liu (GE Co.)   |
| 11:15 – 11:40 | <b>Comparison of Equalisation Schemes for Improving Supercapacitor's Reliability</b><br>Mr. Simon Lambert (Newcastle University)                                   |
| 11:40 – 12:05 | <b>Title to be announced</b><br>Presentation from Emerson Co.  |
| 12:05 – 12:30 | <b>A Study of Optimization Algorithm and Design Theory for Large-Size Wind Turbine Blades</b><br>Mr Long Wang (Nanjing University of Aeronautics and Astronautics) |
| 12:30 – 13:30 | <b>Lunch ( <i>ShaoYiFu Science Building</i> )</b>  |

**Session Chair: Prof Li Ran**

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| 13:40 – 14:05 | <b>Power Electronic Conversion and Control for PEM Fuel Cell Power System</b><br>Prof. Dehong Xu (Zhejiang University)                                       |
| 14:05 – 14:30 | <b>Title to be announced</b><br>Dr Tusitha Abeyasekera (Vestas Co.)  |
| 14:30 – 14:55 | <b>Research Progresses on Reliability in Renewable Energy Systems of CQU</b><br>Mr. Xiong Du (Chongqing University)  |
| 14:55 – 15:25 | <b>Coffee Break</b>  |
| 15:25 – 15:50 | <b>Physics-of-failure Based Lifetime Prediction Models for Power Modules</b><br>Ms Li Yang (University of Nottingham)  |
| 15:50 – 16:15 | <b>Title to be announced</b><br>Presentation from Emerson Co.  |
| 16:15 – 16:40 | <b>CFD-RANS Analysis of Wind Turbines with a Parameter-Calibrated Turbulence Model</b><br>Mr. Wei Zhong (Nanjing University of Aeronautics and Astronautics) |
| 16:40 – 17:05 | <b>Title to be announced</b><br>Dr Mr. Takehiko Kojima (Fuji Co.)  |
| 18:00 – 19:30 | <b>Dinner ( <i>Lily Hotel</i> )</b>  |

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| <b>19:45 – 20:55</b> | <b><i>Performance - “Impression West Lake”</i></b><br>(Address: 29 Yang Gong Causeway , West Lake area, Hangzhou) |
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21st September, 2010 (Tuesday)

**Session Chair: Prof Peter John Tavner**

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| <b>8:30 – 8:55</b>   | <b>DC-link Voltage Ripple Reduction for a Transformerless Modular Wind Generator System</b><br>Prof. Yongdong Li (Tsinghua University)                             |
| <b>8:55 – 9:20</b>   | <b>Title to be announced</b><br>Presentation from Warwick University   |
| <b>9:20 – 9:45</b>   | <b>Grid Integration Technology for Renewable Energy</b><br>Dr Xiaoming Guo (GE Co.)  |
| <b>9:45 – 10:15</b>  | <b><i>Coffee Break</i></b>   |
| <b>10:15 – 10:40</b> | <b>Title to be announced</b><br>Presentation from Edinburgh University   |
| <b>10:40 – 11:05</b> | <b>Dynamic Behavior of Doubly Fed Induction Generator Based Wind Turbines under Three-Phase Voltage Dips</b><br>Mr. Lie Xu (Tsinghua University)                   |
| <b>11:05 – 11:30</b> | <b>A Parametric Investigation of the Effect of Generator Misalignment upon Bearing Fatigue Life in Wind Turbines</b><br>Mr. Matthew Whittle (University of Durham) |
| <b>11:30 – 11:55</b> | <b>Research on Single-phase Transformerless Photovoltaic Inverter Connected to Grid</b><br>Mr. Yi Zhao (Zhejiang University)                                       |
| <b>11:55 – 12:20</b> | <b>Microwave Induced Heating for Defect Detection in Wind Turbine Blades</b><br>Mr. Liang Cheng (Newcastle University)   |
| <b>12:20 – 13:30</b> | <b><i>Lunch ( ShaoYiFu Science Building)</i></b>   |
| <b>14:30 – 17:00</b> | <b>Tour to labs of College of Electrical Engineering, ZJU</b>  |
| <b>18:00 – 20:00</b> | <b><i>Banquet (Shanwaishan Hotel)</i></b><br>Address: No.8 Yuquan Road, West Lake area ( located inside Hangzhou Botanic Garden)<br>Tel: +86-571-87986621          |
| <b>20:30 – 21:30</b> | <b>Consortium Members Meeting (Lily Hotel)</b>   |

22nd September, 2010 (Wednesday)

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|  | <b>Tour to City and West Lake Area (option)</b><br>(The travel fees are at your own expense) |
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