

**1<sup>st</sup> EAWE Summer School - Pamplona, 17<sup>th</sup> – 19<sup>st</sup> May 2010**

**1<sup>st</sup> WAUDIT School – Pamplona, 20<sup>th</sup> – 21<sup>st</sup> May 2010**

**The Seminar will be held in the Public University of Navarre (UPNA)**

**EAWE SCHOOL**

**Monday 17<sup>th</sup> May – WELCOME DAY**

|                      |   |                                   |
|----------------------|---|-----------------------------------|
| <b>8.30 – 9.00</b>   | <b>Registration</b>   |                                   |
| <b>9.00- 11.15</b>   | Introduction to Wind Energy: history, technology, market  | <b><i>M. Kühn (UNIOL)</i></b>     |
| <b>11.15 - 12.00</b> | <b>Brunch</b>   |                                   |
| <b>12.00 – 12.30</b> | <i>Opening Session</i>  |                                   |
| <b>12.30 – 14.00</b> | Introduction to Meteorology (1): Wind Resource Assessment   | <b><i>L. Landberg (GH)</i></b>    |
| <b>14.00 - 14.30</b> | <b>Coffee Break</b>   |                                   |
| <b>14.30 - 16.00</b> | Introduction to Meteorology (2): Forecasting  | <b><i>I. Martí (CENER)</i></b>    |
| <b>16.00 - 17.00</b> | <b>Coffee Break</b>   |                                   |
| <b>17.00 - 18.30</b> | Introduction to rotor and drive train design (1)  | <b><i>M. Hansen (RISODTU)</i></b> |
| <b>20.30</b>         | <b><i>WAUDIT Welcome Dinner :</i></b><br><i>Restaurante Asador OLAVERRI</i><br><i>C/ Santa Marta nº 4</i> |                                   |

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**Tuesday 18<sup>th</sup> May**

|                      |   |                                   |
|----------------------|---|-----------------------------------|
| <b>8.30 - 10.00</b>  | Introduction to rotor and drive train design (2)              | <b><i>M. Hansen (RISODTU)</i></b> |
| <b>10.00 - 10.30</b> | <b>Coffee Break</b>   |                                   |
| <b>10.30 - 12.00</b> | Introduction to loads, safety and standards (1)               | <b><i>J. Sørensen (AAU)</i></b>   |
| <b>12.00 - 13.00</b> | <b>Brunch</b>   |                                   |
| <b>13.00 - 14.30</b> | Introduction to loads, safety and standards (2)               | <b><i>J. Sørensen (AAU)</i></b>   |
| <b>14.30 - 15.00</b> | <b>Coffee Break</b>   |                                   |
| <b>15.00 - 16.30</b> | Introduction to Electrical components and Grid Connection (1) | <b><i>S. Heier (UNIKS)</i></b>    |
| <b>16.30 - 17.00</b> | <b>Coffee Break</b>   |                                   |
| <b>17.00 - 18.30</b> | Introduction to Electrical components and Grid Connection (2) | <b><i>S. Heier (UNIKS)</i></b>    |

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**Wednesday 19<sup>th</sup> May**

|                               |   |                                     |
|-------------------------------|---|-------------------------------------|
| <b>8.30 - 10.00</b>           | Introduction to societal aspects of wind energy (1) | <b><i>J. Zoellner (UNIMD)</i></b>   |
| <b>10.00 - 10.30</b>          | <b>Coffee Break</b>                                 |                                     |
| <b>10.30 - 12.00</b>          | Introduction to societal aspects of wind energy (2) | <b><i>J. Zoellner (UNIMD)</i></b>   |
| <b>12.00 - 13.00</b>          | <b>Brunch</b>                                       |                                     |
| <b>13.00 - 14.30</b>          | PhD research project management (1)                 | <b><i>C. Ferreira (TUDELFT)</i></b> |
| <b>14.30 - 15.00</b>          | <b>Coffee Break</b>                                 |                                     |
| <b>15.00 - 16.30</b>          | PhD research project management (2)                 | <b><i>C. Ferreira (TUDELFT)</i></b> |
| <b>16.30 - 17.00</b>          | <b>Coffee Break</b>                                 |                                     |
| <b>End of the EAWE SCHOOL</b> |   |                                     |

**WAUDIT SCHOOL**

**Wednesday 19<sup>th</sup> May**

|                      |   |                                   |
|----------------------|---|-----------------------------------|
| <b>17.00 – 18.00</b> | WAUDIT Workshop: individual project planning and design | <b><i>WAUDIT Participants</i></b> |
| <b>18.00 – 19.00</b> | WAUDIT Board Meeting                                    | <b><i>Board Members</i></b>       |

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**The Seminar will be held in the Public University of Navarre (UPNA)**

**Thursday 20<sup>th</sup> May**

|                      |  |   |
|----------------------|--|---|
| <b>8.30 - 10.00</b>  | Atmospheric Boundary Layer Theory                      | <b><i>F. Valero / G. Martínez (UCM)</i></b> |
| <b>10.00 - 10.30</b> | <b>Coffee Break</b>                                    |   |
| <b>10.30 - 12.00</b> | Quality assurance of micro-scale meteorological models | <b><i>M. Schatzmann (UNIHH)</i></b>         |
| <b>12.00 - 13.00</b> | <b>Brunch</b>  |   |
| <b>13.00 - 14.30</b> | Atmospheric turbulence at various scales               | <b><i>J. Peinke(UNIOI)</i></b>              |
| <b>14.30 - 15.00</b> | <b>Coffee Break</b>                                    |   |
| <b>15.00 - 18.30</b> | Visit to CENERs Wind Test Farm                         |   |

**Buses for the visit to the Wind Farm will be at 15.15 outside the Building “El Sario” and take us to the Wind Farm.**

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**Friday 20<sup>th</sup> May**

|                      |   |  |
|----------------------|---|--|
| <b>8.30 - 10.00</b>  | Microscale numerical modelling of the ABL | <b><i>N. Sørensen (RISØDTU)</i></b>    |
| <b>10.00 - 10.30</b> | <b>Coffee Break</b>                       |  |
| <b>10.30 - 12.00</b> | Wind turbine wakes modeling               | <b><i>J. Prospathopoulos(CRES)</i></b> |
| <b>12.00 - 13.00</b> | <b>Brunch</b>                             |  |
| <b>13.00 - 14.30</b> | Offshore meteorology                      | <b><i>D. Heinemann (UNIOL)</i></b>     |
| <b>14.30 - 15.00</b> | <b>Coffee Break</b>                       |  |
| <b>15.00 - 16.30</b> | Introduction to measurement techniques    | <b><i>M. Courtney (RISØDTU)</i></b>    |
| <b>16.30 - 17.00</b> | <b>Coffee Break</b>                       |  |
| <b>17.00 - 18.30</b> | Wind tunnel modelling of ABL              | <b><i>S. Aubrun (U. Orleans)</i></b>   |