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The Science of Making Torque from Wind 2014 (TORQUE 2014)

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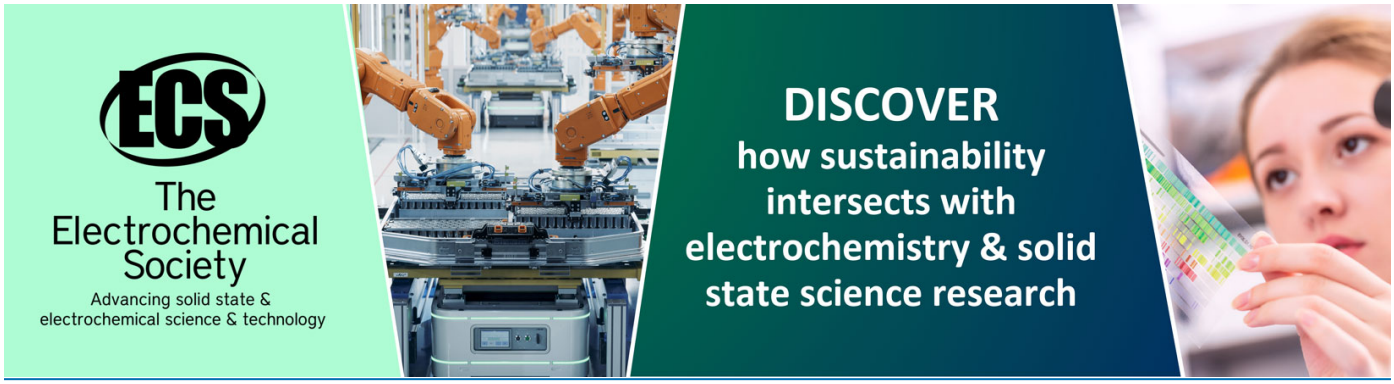

Preface

The 186 papers in this volume constitute the proceedings of the fifth Science of Making Torque from Wind conference, which is organized by the European Academy of Wind Energy (EAWE, www.eawe.eu). The conference, also called Torque 2014, is held at the Technical University of Denmark (DTU) 17–20 June 2014. The EAWE conference series started in 2004 in Delft, the Netherlands. In 2007 it was held in Copenhagen, in 2010 in Heraklion, Greece, and then in 2012 in Oldenburg, Germany.

The global yearly production of electrical energy by wind turbines has grown approximately by 25% annually over the last couple of decades and covers now 2–3% of the global electrical power consumption. In order to make a significant impact on one of the large challenges of our time, namely global warming, the growth has to continue for a decade or two yet. This in turn requires research and education in wind turbine aerodynamics and wind resources, the two topics which are the main subjects of this conference. Similar to the growth in electrical power production by wind is the growth in scientific papers about wind energy. Over the last decade the number of papers has also grown by about 25% annually, and many research based companies all over the world are founded. Hence, the wind energy research community is rapidly expanding and the Torque conference series offers a good opportunity to meet and exchange ideas. We hope that the Torque 2014 will heighten the quality of the wind energy research, while the participants will enjoy each others company in Copenhagen.

Many people have been involved in producing the Torque 2014 proceedings. The work by more than two hundred reviewers ensuring the quality of the papers is greatly appreciated. The timely evaluation and coordination of the reviews would not have been possible without the work of sixteen "section editors" all from DTU Wind Energy: Jakob Mann, Christian Bak, Andreas Bechmann, Ferhat Bingöl, Ebba Dellwik, Nikolay Dimitrov, Gregor Giebel, Martin O L Hansen, Dorte Juul Jensen, Gunner Larsen, Helge Aagaard Madsen, Anand Natarajan, Ole Rathmann, Ameya Sathe, Jens Nørkær Sørensen and Niels Nørkær Sørensen, who are all co-editors of these proceedings.

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We are also immensely indebted to the very responsive help and support from the editorial team at IoP, especially Sarah Toms and Anete Ashton, during the reviewing process of these proceedings.

We are looking forward to meeting you in Copenhagen and also to Torque 2016, which will take place at the Technical University of Munich, Germany.

Roskilde, Denmark, June 2014

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