

# CALL FOR PAPERS

## Special Issue “To tame the wind: advanced control applications in wind energy”

Contributions are invited for a special issue of the *IEEE Transactions on Control Systems Technology*, devoted to the topic of control applications in wind energy. The objective of this special issue is to illustrate the potential of control engineering, in its broader sense, to advance the state of the art of wind energy, by producing significant improvements in many aspects of this field. The special issue aims to collect high-quality, original technical papers with the most advanced research results concerned with modeling, identification and control aspects of wind technology; topics include but are not limited to

- blade pitch and rotor speed control
- wind models and wind forecasting
- wind turbine modeling
- load monitoring and mitigation
- wind farm modeling and control
- optimal siting of wind turbines
- grid integration
- power quality improvement
- wind energy storage management
- offshore wind turbine control
- structural control of wind turbines
- fault tolerant control of wind turbines
- distributed blade control systems
- new concepts of wind energy.

As a general rule, only papers containing significant experimental results and/or applications to experimental data will be included. In applications where experimental data may be very hard to obtain, like deep-sea offshore turbines, numerical results with high-fidelity models might be also accepted. The authors should possibly emphasize to what extent their research can contribute to solve the actual issues in wind energy, which still prevent high market penetration levels. Contributions from industry are particularly encouraged, as well as contributions with a strong interdisciplinary component. Papers must be prepared in accordance with the *IEEE Transactions on Control Systems Technology* standards. Prospective authors are

advised to consult the “Information for Authors” prior to submitting a paper: <http://www.ieeecss.org/main/trans-on-control-systems-technology/transactions-on-control-systems-technology>. Contributions should be submitted via <http://mc.manuscriptcentral.com/tcst> by December 15, 2011. Prospective authors should state in their cover letter and in the “notes” section of the submission site that their manuscript is intended for the special issue “To tame the wind: advanced control applications in wind energy”. Submitted manuscripts must not have been previously published or be under review for possible publication elsewhere.

All papers will be rigorously reviewed according to the standards of the *IEEE Transactions on Control Systems Technology*.

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