

## Special Issue

# Novel Research on Wind Turbine Control and Integration

### Message from the Guest Editors

This Special Issue of *Sustainability* aims to address the challenges of designing and using advanced wind turbine control techniques to convert kinetic energy into electrical energy. Original submissions focused on new control techniques and implementation on electronic boards (DsPACE, FPGA, STM, etc.) are welcome. Topics of interest in this Special Issue include, but are not limited to:

- The adaptive control of wind systems;
- The new configuration of wind systems;
- The backward control of wind systems;
- The sliding mode control (high order, super-twist, etc.) of wind systems;
- The direct power or torque control of wind systems;
- The predictive control of wind systems;
- Algorithms to optimize control systems of wind systems;
- Wind System Control Observers;
- The integration of wind systems into the power grid;
- Emerging power electronics for electric drives in renewable energy applications;
- Maximum power point controllers;
- Grid-connected inverter controllers;
- Battery charge controllers;
- The modeling and simulation of smart grids;
- Artificial intelligence control techniques for wind systems;
- Real-Time DsPACE implementation;
- Real-Time FPGA implementation.

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### Guest Editors

Prof. Dr. Bossoufi Badre  
Prof. Dr. Youness Mourabit  
Dr. Manale Boderbala

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### Deadline for manuscript submissions

closed (31 August 2023)



## Sustainability

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*Sustainability*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[sustainability@mdpi.com](mailto:sustainability@mdpi.com)

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# About the Journal

## Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in Sustainability, an international open access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

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## Editor-in-Chief

Prof. Dr. Steve W. Lyon

School of Environment and Natural Resources, Ohio State University,  
Columbus, OH 43210, USA

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