

Mahmood Mirzaei - DTU Orbit (12/08/2016)

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Wind turbine loads & control

Publications:

Experimental verification of a real-time power curve for down-regulated offshore wind power plants

Giebel, G., Göçmen Bozkurt, T., Sørensen, P. E., Réthoré, P.-E., Poulsen, N. K., Mirzaei, M., Skjelmose, M. R. & Kristoffersen, J. R. 2015

Publication: Research › Poster – Annual report year: 2015

PI-based assessments of 2 bladed concepts: INNWIND.EU Work package 1, Deliverable 1.32

Njomo Wandij, W., Mirzaei, M., Natarajan, A. & Zahle, F. 2015 INNWIND.EU. 21 p.

Publication: Research - peer-review › Report – Annual report year: 2015

Real-time available power estimation for offshore wind power plants

Göçmen Bozkurt, T., Giebel, G., Sørensen, P. E., Réthoré, P.-E., Mirzaei, M., Poulsen, N. K., Skjelmose, M. R. & Kristoffersen, J. R. 2015

Publication: Research › Poster – Annual report year: 2015

Turbine Control Strategies for Wind Farm Power Optimization

Mirzaei, M., Göçmen Bozkurt, T., Giebel, G., Sørensen, P. E. & Poulsen, N. K. 2015 *Proceedings of 2015 American Control Conference*. IEEE, p. 1709 - 1714

Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Controller Design for Blade Load Reduction Using Synthetic Jets

Soltani, M. & Mirzaei, M. 2014 *Proceedings of the American Control Conference 2014*. IEEE, p. 4440-4445

Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Estimation of the Possible Power of a Wind Farm

Mirzaei, M., Göçmen Bozkurt, T., Giebel, G., Sørensen, P. E. & Poulsen, N. K. 2014 In : I F A C Workshop Series. 19, p. 6782-6787

Publication: Research - peer-review › Conference article – Annual report year: 2014

Model based active power control of a wind turbine

Mirzaei, M., Soltani, M., Poulsen, N. K. & Niemann, H. H. 2014 *Proceedings of the American Control Conference*. IEEE, p. 5037-5042

Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Model Predictive Control of Buoy Type Wave Energy Converter

Soltani, M. N., Sichani, M. T. & Mirzaei, M. 2014 In : I F A C Workshop Series. 19, p. 11159-11164

Publication: Research - peer-review › Conference article – Annual report year: 2014

Wind Speed Estimation and Parameterization of Wake Models for Downregulated Offshore Wind Farms

Göçmen Bozkurt, T., Giebel, G., Poulsen, N. K. & Mirzaei, M. 2014

Publication: Research - peer-review › Poster – Annual report year: 2014

Wind Speed Estimation and Parametrization of Wake Models for Downregulated Offshore Wind Farms within the scope of PossPOW Project

Göçmen Bozkurt, T., Giebel, G., Poulsen, N. K. & Mirzaei, M. 2014 In : Journal of Physics: Conference Series (Online).

524, 1, 7 p., 012156

Publication: Research - peer-review › Conference article – Annual report year: 2014

An MPC approach to individual pitch control of wind turbines using uncertain LIDAR measurements

Mirzaei, M., Soltani, M., Poulsen, N. K. & Niemann, H. H. 2013 *2013 European Control Conference (ECC)*. IEEE, p. 490-495

Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Frequency weighted model predictive control of wind turbine

Klauco, M., Poulsen, N. K., Mirzaei, M. & Niemann, H. H. 2013 *2013 International Conference on Process Control (PC)*. IEEE, p. 347-352

Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Model Predictive Control of Wind Turbines using Uncertain LIDAR Measurements

Mirzaei, M., Soltani, M., Poulsen, N. K. & Niemann, H. H. 2013 *2013 American Control Conference (ACC)*. IEEE, p. 2235-2240 (American Control Conference).

Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

PossPOW: possible Power of Downregulated Offshore Wind Power Plants

Göçmen, T., Giebel, G., Sørensen, P. E., Poulsen, N. K., Réthoré, P-E. & Mirzaei, M. 2013 *Conference proceedings - EWEA Offshore 2013*. European Wind Energy Association (EWEA), 7 p.

Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

PossPOW: Possible Power of Downregulated Offshore Wind Power Plants

Göçmen, T., Giebel, G., Sørensen, P. E. & Mirzaei, M. 2013

Publication: Research › Poster – Annual report year: 2013

Designing Trailing Edge Flaps of Wind Turbines using an Integrated Design Approach

Mirzaei, M., Poulsen, N. K. & Niemann, H. H. 2012

Publication: Research - peer-review › Paper – Annual report year: 2013

Individual Pitch Control Using LIDAR Measurements

Mirzaei, M., Henriksen, L. C., Poulsen, N. K., Niemann, H. H. & Hansen, M. H. 2012 *2012 IEEE International Conference on Control Applications (CCA): Part of 2012 IEEE Multi-Conference on Systems and Control*. IEEE, p. 1646-1651 (IEEE International Conference on Control Applications. Proceedings).

Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Model Predictive Control of a Nonlinear System with Known Scheduling Variable

Mirzaei, M., Poulsen, N. K. & Niemann, H. H. 2012 *Proceedings of the 17th Nordic Process Control Workshop*. Jørgensen, J. B., Huusom, J. K. & Sin, G. (eds.). Kogens Lyngby: Technical University of Denmark, p. 163-168

Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Robust Model Predictive Control of a Nonlinear System with Known Scheduling Variable and Uncertain Gain

Mirzaei, M., Poulsen, N. K. & Niemann, H. H. 2012 *Robust Control Design*. International Federation of Automatic Control, Vol. 7, p. 616-621 (IFAC Proceedings Volumes (IFAC-PapersOnline)).

Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Robust Model Predictive Control of a Wind Turbine

Mirzaei, M., Poulsen, N. K. & Niemann, H. H. 2012 *Proceedings of the 2012 American Control Conference*. p. 4393-4398 6 p. (American Control Conference).

Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Wind Turbine Control: Robust Model Based Approach

Mirzaei, M., Poulsen, N. K. & Niemann, H. H. 2012 Kgs. Lyngby: Technical University of Denmark. 234 p. (IMM-PHD-2012; No. 281).

Publication: Research › Ph.D. thesis – Annual report year: 2013

A μ -Synthesis Approach to Robust Control of a Wind Turbine

Mirzaei, M., Niemann, H. H. & Poulsen, N. K. 2011 *2011 50th IEEE Conference on Decision and Control and European Control Conference (CDC-ECC)*. IEEE, p. 645-650

Publication: Research - peer-review › Article in proceedings – Annual report year: 2011

DK-iteration robust control design of a wind turbine

Mirzaei, M., Niemann, H. H. & Poulsen, N. K. 2011 *2011 IEEE International Conference on Control Applications*. IEEE

Publication: Research - peer-review › Article in proceedings – Annual report year: 2011

H ∞ Control of a Wind Turbine

Mirzaei, M., Poulsen, N. K. & Niemann, H. H. 2011 *Proceedings of the 7th PhD Seminar on Wind Energy in Europe*.

Publication: Research - peer-review › Article in proceedings – Annual report year: 2011

Projects:

Lidar detection of wakes for wind turbine and farm control

Held, D. P., Mann, J., Hu, Q. & Mirzaei, M.

01/01/2016 → 31/12/2018

Project: PhD

Concurrent Aero-Servo-Elastic analysis and Design of wind turbines

Mirzaei, M., Poulsen, N. K., Niemann, H. H., Jørgensen, J. B., Bottasso, C. L. & Stoustrup, J.

15/08/2009 → 07/03/2013

Project: PhD