

Name: Muhammad Mamdouh Ibrahim Kabsha

Current Title: Assistant Professor, Electrical Engineering Department, Faculty of Engineering, Mansoura University, Egypt

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FIELDS OF SPECIALIZATION

- Grid Integration of Renewable Energy Sources
- Hybrid AC/DC Microgrids
- HVDC
- Power System Stability
- Fault Detection Techniques

DEGREES

- **Ph.D.** degree in Electrical Engineering in 2021 from Indian Institute of Technology Bombay, Mumbai, India; Thesis Topic: Frequency and Voltage Stability Support from VSC-HVDC Connected Offshore Wind Power Plants.
- **M.S.** degree in Electrical Engineering in 2015 from Faculty of Engineering, Mansoura University, Egypt; Thesis Topic: Wind Generation Protection Techniques against Low Voltage Faults.
- **Bachelor** of Electrical Engineering in 2009 from Faculty of Engineering, Mansoura University, Mansoura, Egypt.

ACADEMIC AND INDUSTRIAL POSITIONS

(December' 2021 – Present), Assistant Professor, Faculty of Engineering, Mansoura University, Mansoura, Egypt.

Responsibilities:

- Do research in the areas of grid integration of renewable energy as one of the leading and promising research area in power systems. The main research focus on integration of onshore and offshore wind farms to the main grid through high voltage direct current (HVDC) transmission lines. This field is getting more and more attention, primarily due to high wind speed in the unoccupied desert areas and the offshore sites in the deep seas. The main goal of my research group is to address the power system stability issues and the protection challenges as inevitable future problems, while supporting the power system by proposing smart control and protection strategies.
- Teaching undergraduate-level (Power Systems Control), (Power Systems Protection), (Power Systems Stability), (Electric Circuit Theories), postgraduate-level (Advanced Control of Electric Power Systems), (Flexible AC Transmission Systems).

(June 2015 until November 2021), Assistant Lecturer, Faculty of Engineering, Mansoura University, Mansoura, Egypt.

Responsibilities:

- During the period from June 2015 to June 2017, I was teaching undergraduate-level courses including (Power Systems Control), (Power Systems Protection), (Power Systems Stability), (Electric Circuit Theories).
- During the period from July 2017 to September 2021, I was doing my PhD research work at Indian Institute of Technology Bombay, Mumbai, India.

(February 2011 until May 2015), Demonstrator, Faculty of Engineering, Mansoura University, Mansoura, Egypt.

Responsibilities:

- I was doing my master thesis research work at Mansoura University. The main goal of master thesis is to address the protection challenges with high integration of wind power plants, while complying with the grid code requirements imposed on the wind power plants.
- Assisting in teaching undergraduate-level courses including (Power Systems Control), (Power Systems Protection), (Power Systems Stability), (Electric Circuit Theories).

PROFESSIONAL RECOGNITION

- Elevated to grade of IEEE Senior Member in August 2022.

PATENTS, PUBLICATIONS

Journal Papers

- 1) M. M. Kabsha, and Zakir H. Rather “Adaptive Control Strategy for Frequency Support from MTDC Connected Offshore Wind Power Plants,” *IEEE Transactions on Power Electronics*, vol. 38, no. 3, pp. 3981-3991, March 2023.
- 2) M. M. Kabsha, and Zakir H. Rather “Advanced LVRT Control Scheme for Offshore Wind Power Plant,” *IEEE Transactions on Power Delivery*, vol. 36, no. 6, pp. 3893-3902, December 2021.
- 3) M. M. Kabsha, and Zakir H. Rather “A New Control Scheme for Fast Frequency Support from HVDC connected Offshore Wind Farms in Low Inertia System,” *IEEE Transactions on Sustainable Energy*, vol. 11, no. 3, pp. 1829-1837, July 2020.
- 4) M. M. Kabsha, Nagy Abed, Gabr Abdelsalam “Performance of Low Voltage Ride-Through protection techniques for DFIG wind generator”, Published in Mansoura Engineering Journal, (MEJ) Vol.37, No 3, September 2012.

Conference Publications

- 1) M. M. Kabsha, and Zakir H. Rather "Evaluation of LVRT Control Strategies for Offshore Wind Farms,"^{7th} *International Conference on Advances in Energy Research, India, December, 2019.*
- 2) M. M. Kabsha, and Zakir H. Rather "LVRT Induced Frequency Stability in Offshore Wind Power System," ^{2nd} *International Conference on Large-Scale Grid Integration of Renewable Energy in India, September, 2019.*
- 3) Nagy Abed, M. M. Kabsha, Gabr Abdelsalam "Low Voltage Ride-Through protection techniques for DFIG wind generator", Published in *Power and Energy Society General Meeting (PES), IEEE, July 2013.*
- 4) Nagy Abed, Gabr Abdelsalam, M. M. Kabsha "Simulation and evaluation of Low Voltage Ride Through protection techniques for DFIG", Published in *Power and Energy Society General Meeting (PES), IEEE, July 2012.*