

PROFILE:

Dr Damian Obioma Dike, a 2008 doctoral graduate of Tennessee Technological University, USA, is a Senior Lecturer in the Electrical and Electronic Engineering Department and also the University Alumni Relations Officer, Federal University of Technology, Owerri, Nigeria.



He worked with Cummins Inc (Power Generation) USA as a Senior Project Engineer from 2008 to 2010, where he designed and supervised the execution of 53 low and medium voltage paralleling system projects. At FUTO, he leads the electrical power and embedded systems research team (EPERT). He also serves as a coordinating consultant engineer to JENCEL Consults limited.

DEGREES OBTAINED WITH DATES:

- PhD Engineering, Tennessee Technological University, Cookeville, Tennessee, USA 2008.
- M. Sc. Electrical Engineering (Power System Option), FUT Owerri, 2002.
- B. Eng, Electrical and Electronic Engineering, FUT Owerri, 1995

PROFESSIONAL AND ACADEMIC AWARDS:

- FUT Owerri M.Sc. Graduate Fellowship Award, 1999.
- FUT Owerri/Howard University Washington D.C, USA, PhD Fellowship Award, 2004.
- Tennessee Technological University Cookeville, Tennessee, USA, Minority students PhD Research Fellowship award, 2005 – 2008.
- National Society of Black Engineers (NSBE) Region 3, Academic Excellence Award, 2007.

PRIMARY TEACHING AREA:

- Power flow studies and system analysis.
- High voltage engineering.
- Power system protection.
- Power system deregulation and electricity market development.
- Renewable energy resources and integration.
- FACTS devices and converter modeling.

- Distribution system analysis and protection.
- Network theory and applications.

RESEARCH INTEREST:

- Application of modern programming and simulation tools to power system.
- Power system studies and automation;
- Distribution system modeling and protection.
- Power system collapse studies.
- Renewable energy resources and its integration to existing power network.
- Converter modeling and simulation.
- Electricity restructuring and marketing.
- Power system application packages and modern simulation tools.
- Risk assessment of power system and collapse monitoring.

OTHER EXPERIENCES:

- **University Alumni Relations Officer**, FUTO (2010 – date).
- **Deputy Managing Director**, FUTO Consult Ltd (2010 – 2011)
- **Senior Electrical Engineer** – Systems Design, Cummins Inc Power Generation Unit, Fridley, MN 55432, USA (Sept. 2008 – Sept 2010).
- **Research Assistant**, Center for Energy Systems Research, Tennessee Technical University, Cookeville, (August 2005 – August 2008).
 - Developed an Index-based reactive power compensation scheme for the Ph. D.
 - Worked on instrument transformer modeling, analysis and applications.
 - Modeled, analyzed and simulated various electrical machines and converters using Simulink, Matlab and DSP tools.
 - Performed analysis and simulation of industrial motors.
 - Worked on distributed generation and alternate energy sources.
- **Teaching Assistant**, ECE Department, Howard University, Washington D.C., USA (October 2004 – May 2005).
 - Taught undergraduates, run lab and supervised project work.
 - Worked on Power System Analysis using PSAT and Energy Conversion at the Center for Energy Systems and Control.
 - Carried out research on Parallel Computing at the Center for Embedded Systems Research.

SELECTED PUBLICATIONS:

- Dike, V. N, Chineke, T.C., Dike, D. O. and Akujor, C.E. “Synthesis of wind and solar energy options: A viable way of boosting energy generation in Nigeria, “International Conference on Renewable and Alternative Energy (FUTO Alternative Energy 2011), August 7 – 11, 2011.
- Iheaturu, N.C, Rauhe, J.C., Costa, F.M., Madufor, I. C., Ugochukwu, C. N and Dike, D. O., “Raw materials Development for Renewable Energy Supply in Nigeria: A case for the utilization of spent oil base drilling mud (SOBM) filler in Wind Turbine Blades,”. Applied Signals Reports, Vol. 1, Issue 3, May 2011.
- Iheaturu, N.C., Ryzard, P., Madufor, I.C., Rauhe, J.C., Sadiku, R.E. and Dike, D. O., “Polymer Process Technologies for Wind Turbines: Prospects for Energy Efficiency and Improved Energy Generation in Nigeria,” AppliedSignals Reports, Vol. 1, Issue 4, October 2011, p.1-22.
- C. O. Ahiakwor, U. C. Chukwu and D. O. Dike, “Optimal Transmission Line Pricing Algorithm for an Emerging Restructured Power Utility,” published in the Proceedings of IEEE Transmission and Distribution Conference and Exposition, April 21-24, 2008, Chicago IL, USA.
- D.O. Dike and O. D. Momoh, “An Integrated AC/DC Super-grid System – A Mechanism to solving the North American Electrical Power Crisis”, published in the Proceedings of the 38th SSST/IEEE Conference, Macon Georgia, March 4 – 6, 2007, pp. 204-208.
- D. O. Dike and S. M. Mahajan, “L-index Modulated Voltage Source Converter,” published in the International Journal of Emerging Electric Power System, Berkeley Electronic Press, Berkeley, CA 94705, USA (October, 2008).
- D. O. Dike and S. M. Mahajan, “Utilization of L-index in Microgrid Interconnected Power System Network,” published in the Proceedings of Power Engineering Society General Meeting, July 20-24, 2008, Pittsburg, PA, USA.
- D. O. Dike, S. M. Mahajan and G. Radman, “Development of a Versatile Voltage Stability Index Algorithm,” published in the Proceedings of IEEE Electrical Power Conference 2007, Montreal QC, Canada, October 24-26, 2007.
- O. D. Momoh and D. O. Dike, “Dynamic and Steady State Analysis of Boost Rectifier Supplying Voltage Sensitive Load”, published in the Proceedings of the 38th SSST/IEEE Conference, Macon Georgia, March 4 - 6, 2007, pp. 42-46.
- D. O. Dike and O. B. Obah, “Remodeling of West African power pool to include HVDC links for improved performance”, IREJEST, Nigeria, 2004.
- O. B. Obah and D. O. Dike. “Energy Resource Pooling: Pivotal to Long Term Performance of West African Electric Power Systems”, IREJEST, Nigeria, 2004.

CONTACT INFORMATION:

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