

PROFILE OF DR. MKPAMDI NELSON EKE

*Department of Mechanical Engineering
Faculty of Engineering*

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MARITAL STATUS: MARRIED
STATE/LGA OF ORIGIN: ABIA/UMUNNEOCHI

BIO DATA

DR. MKPAMDI NELSON EKE holds a bachelors degree (B.Eng) in Mechanical Engineering from the Federal University of Technology Owerri, a Masters degree (M.Eng) and Doctor of Philosophy (Ph.D) degrees in Mechanical Engineering from the University of Nigeria, Nsukka .During the period of his masters degree programme in 2001, Dr. Eke got a three month Young collaborators research fellowship in Non- Conventional Energy with Abdus Salam International Centre for Theoretical Physics(ICTP), Trieste Italy, with the help of his supervisor, Prof. S.O. Enibe, He joined the services of the University in 2006 and has been involved in teaching and research in Energy and Power Technology as well as in Manufacturing Technology. He is married with children.

Area of Specialization : Energy and Power Technology

Membership of Professional Bodies

Dr M. N Eke is member of the Nigeria Society of Engineers (MNSE) with registration number 23301.

Research Publications

- 1. M.N Eke** and S.O. Enibe (2007) Optimal Scheduling of Petroleum Products Distribution in Nigeria. Nigerian Journal of Technology (NIJO TECH) vol 26 pp 67 - 80.
- 2. C. E Mbanugo, J.C Agunwaumba and M. N Eke** (2011) Risk Analysis Applied in Oil Exploration and Production. Nigerian Journal of Technology (NIJOTECH) Vol. 30 No. 2 pp. 73 – 79.

3. Okoroigwe E C, **Eke M. N** and Ugwu H. U. (2013) Design and evaluation of combined solar and biomass dryer for small and medium enterprises for developing countries. International Journal of Physical Sciences, Vol. 8(25), pp. 1341-1349
4. **M. N Eke** (2014) Long Term Energy Performance Analysis of Egbin Thermal Power Plant Nigeria. Nigeria Journal of technology (NIJOTECH) Vol. 33. No 11 pp 97 – 103.
5. P. U Akpan, S. Jones, **M. N Eke** and H Yeung (2015). Modelling and Transient Simulation of Water Flow in Pipelines using WANDA Transient Software. Ain Shams Engineering Journal. <http://dx.doi.org/10.1016/j.asej.2015.09.006>. pp.2090-4479

Conference attended and paper read

1. **M. N Eke** and P. N Okolo (2013) Power plants energy resource utilization scenario for power generation. Paper delivered at the fourth Electrical Engineering National Conference ES4PG – 2013 Energy Sources for power generation 21 – 23 July, 2013 organized by the Department of Electrical Engineering, University of Nigeria, Nsukka.

Research archives

His research interest is on Conventional and Non- conventional energy resources, use of engineering research tools such Scilab software in First and Second law Analysis of thermal power systems and other energy conversion devices.

Research archives includes

- Design and construction of Solar-Assisted Dryer for Maize Grains. The objective is the enhancement of solar energy in drying maize grains using absorption materials such as black-coated corrugated iron sheets.
- Optimal Scheduling of Petroleum Products Distribution in Nigeria. The objective is to develop transportation problems as linear programming model that will minimize the cost of transportation of petroleum products from the NNPC refineries to storage depots through pipeline network.
- Improvement of the performance of thermal power systems through Energy and Exergy Analysis. The objective is to use first and second law analysis to determine the quantity of exergy flows and location of losses; determine the exergy efficiency of the system components; determine the power plant exergy efficiency; determine the exergy destructions within the system components and identify systems that have potential for significant performance improvement.

Academic and Administrative Responsibilities

- Teaching of undergraduate courses in Engineering Thermodynamics, Manufacturing Technology and Thermal Engineering and Advanced Heat Transfer

- Academic Adviser to undergraduate students at all levels.
- Postgraduate Supervisor for some Masters Students.
- Staff Adviser, Association of Mechanical Engineering (THERMAC) University of Nigeria, Nsukka 2006-2007 and 2013 till date.
- Time - Table Coordinator, Department of Mechanical Engineering University of Nigeria, Nsukka 2015 till date
- Departmental representative in the Faculty Committee on Entrance Board 2012 till date
- Departmental representative in the Faculty Curriculum Committee 2015 till date.

Summary of Work Experience

Taught second and third year courses in Engineering Thermodynamics for over seven years, and fifth year course in Power Plant Engineering, Thermal Engineering and Advanced Heat Transfer. I have been involved in supervising undergraduate final year projects till date; and recently approved for postgraduate supervision at Masters level.