



**Dr. Lacour Mody Ayompe**  
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## **BIOGRAPHY**

Dr. Lacour Mody Ayompe is a postdoctoral researcher in Dublin Institute of Technology (DIT) under the Arnold F. Graves scholarship programme. He earned his PhD (2011) in the School of Civil and Building Services Engineering, DIT. He graduated from Dublin City University in 2007 with an MSc (honours) in Computer Aided Mechanical and Manufacturing Technology. He also holds a masters in engineering degree (M.Engr., honours) in Energy and Power Technology from the University of Nigeria, Nsukka (UNN) obtained in 1998. In 1995, he obtained a bachelor of engineering (B.Engr., honours) degree in Mechanical Engineering in UNN. Between 2007 and 2010, he worked on an inter-disciplinary project titled "Microgeneration Technology Performance in the Irish Housing Stock" whose main objective was to identify domestic-scale retrofit microgeneration technologies that are most economically viable in the Irish housing stock which are to be favoured by policy makers in the medium to long term (10-30) years. Between October 2007 and June 2011, he worked as a part-time assistant lecturer in DIT where he taught two undergraduate courses and supervised six energy related masters degree theses. Upon graduation in 1995, he worked as a Research Assistant/Graduate Assistant at the National Centre for Energy Research and Development, UNN. He was also active in academic activities in the Department of Mechanical Engineering, UNN until 1999. He is self-motivated and enthusiastic with strong communication, interpersonal and team working skills. He has a proven ability to learn new concepts quickly and apply them to real working situations. He has published and authored five journal and three conference papers. He also possesses strong mathematical and statistical analysis skills and is versed with several computer software packages. He also comfortable with the design of course modules and is currently undertaking a course in Learning, Teaching and Assessment.

## **EDUCATION**

- Jun 2007 – Nov 2011    **PhD**  
School of Civil and Building Services Engineering,  
Dublin Institute of Technology, Bolton Street, Dublin 1, Ireland
- Sep 2006 – Aug 2007    **M.Sc.**  
Computer Aided Mechanical and Manufacturing Technology  
Dublin City University (DCU), Dublin 9, Ireland.
- Courses covered:    Product Design, Development and Value Analysis; Operations Research Methods;  
Project Management; Research Practice and Methodology; Computer Aided  
Manufacturing (CAM); Manufacturing Systems Simulation; Manufacturing Process  
Analysis and Tool Design; CAD/CAM Integration.
- Jan 1996 – Oct 1998    **M.Engr.**  
Energy and Power Technology  
University of Nigeria, Nsukka, Federal Republic of Nigeria.
- Courses covered:    Advanced Fluid Mechanics; Analytical Methods in Engineering (Engineering  
mathematics and statistical techniques); Solar Energy Conversion; Advanced Heat  
and Mass Transfer; Operations Research in Industrial Engineering.
- Oct 1990 – May 1995    **BSc (Hons) Mechanical Engineering (2<sup>1</sup> Honours)**  
University of Nigeria, Federal Republic of Nigeria

## EMPLOYMENT

### Current Appointment

Oct 2011 – Present     **Postdoctoral Researcher**  
School of Civil and Building Services Engineering,  
Dublin Institute of Technology, Dublin 1, Ireland.  
**Research Theme:** A techno-economic policy analysis of microgeneration technologies in the Irish residential sector.

### Previous Positions Academic

Oct 2007 – Jun 2011     **Assistant Lecturer (Part-Time)**  
Department of Civil and Structural Engineering,  
Dublin Institute of Technology, Dublin 1, Ireland

Apr 1996 – Oct 1999     **Research Assistant/Graduate Assistant**  
Nat. Centre for Energy Research and Development, Univ. of Nigeria, Nsukka.

### Other

Jul 2002 – Aug 2006     **CEO/Founder**  
Appropriate Technology Services, Box 10, Nguti, Cameroon

Jan 2000 – Jul 2002     **Coordinator/Founder**  
Freeworld Computer Training Centre, Box 10, Nguti, Cameroon

## SKILLS

### Research

- Reviewer for peer-reviewed journals.
- PhD Researcher: As a PhD research student, I developed research skills in: evaluating the techno-economic and environmental performance of microgeneration technologies; carrying out transient simulations of the energy output from microgeneration technologies; designing, setting up and monitoring the field performance of microgeneration technologies; collecting and analysing data; writing technical reports and academic papers for journals.
- Research Member: As a research member at the Dublin Energy Lab (<http://www.dit.ie/dublinenergylab/>) since June 2007, I have been actively involved in the promotion of science and engineering energy research. I have on numerous occasions given presentations on energy systems modelling, energy policy and renewable energy technologies in seminars and workshops.

### Teaching

Part-time assistant lecturer (DIT):

- Tailored, developed and delivered lectures on engineering modules and presentations to engineering undergraduate students. Modules lectured include: Engineering graphics (second years) and Structural Analysis (fourth year): Computer Modelling of Structures. Major software packages used include: AutoCAD, LUSAS and LinPro.
- Supervised six energy related masters degree thesis in Energy Management and Sustainable Electrical Engineering Systems.
- Supported and mentored students on academic issues, helping them to empower themselves and take control of their own learning.

Graduate assistant (UNN):

- Lectured Mechanical Engineering modules
- Supervised undergraduate projects and organized tutorials for undergraduate students.

## Technical Training

- Feb – March 2012 Certificate in Learning, Teaching and Assessment  
December 2011 Presentation skills  
23-25 May, 2011 Fraunhofer Institute for Solar Energy Systems, Freiburg, Germany.  
Phase Change Materials Training School  
European Cooperation for Science and Technology Action TU0802 on: Next generation of cost effective phase change materials for increased energy efficiency in renewable energy systems in buildings.
- Jun 29 – Jul 12, 2008 Technological Educational Institute of Patras, Greece.  
“e-Technologies on Renewable Energy Systems (R.E.S): Teaching and Learning”,  
Summer University for R.E.S: An ERASMUS Intensive Programme.

## Computer

- Operating systems: Windows
- MS Office applications including Access Database
- High quality presentations in MS PowerPoint
- Dreamweaver 8
- AutoCAD
- SPSS statistics
- Transient System Simulation (TRNSYS) and RETScreen
- Programming in Matlab

## MAJOR HONOURS AND AWARDS

- Irish Higher Education Authority Arnold F. Graves Postdoctoral Scholarship at Dublin Institute of Technology (October 2011 – March 2013)
- Dublin Institute of Technology Fiosraigh Scheme Scholarship at Dublin Institute of Technology (December 2010 – May 2011)
- Irish Higher Education Authority (Technological Sector Research Strand III) PhD scholarship at Dublin Institute of Technology (June 2007 – November 2010)
- National Business Development Forum Award for Young Entrepreneurs of Cameroon, organized by H.E. Paul Biya, Head of State of the Republic of Cameroon (2003)
- German Technical Aid (GTZ) grant for economic projects related to wildlife conservation in Cameroon (2001).

## PROFESSIONAL MEMBERSHIP

- Member, Engineers Ireland
- Member, Solar Energy Society of Ireland

## ADDITIONAL INFORMATION

- Languages: English (native), French (Very good in written and spoken), German (Fair in written and spoken)
- Date and Place of Birth: 27.07.1971, Douala, CAMEROON
- Marital Status: married with 1 daughter

## RESEARCH ACTIVITIES

### Journal Publications

- L.M. Ayompe, A. Duffy, S.J. McCormack and M. Conlon. Projected costs of a grid-connected domestic PV system under different scenarios in Ireland, using measured data from a trial installation. *Energy Policy* (2010): 38; 3731-3743.

- L.M. Ayompe, A. Duffy, S.J. McCormack and M. Conlon. Validated real-time energy model for small-scale grid-connected PV systems. *Energy* (2010):35(10); 4086-4091.
- L.M. Ayompe, A. Duffy, S.J. McCormack and M. Conlon. Measured performance of a 1.72 kilowatt rooftop grid connected photovoltaic system in Ireland. *Energy Conversion and Management* (2011): 52(2); 816-825.
- L.M. Ayompe, A. Duffy, S.J. McCormack and M. Conlon. Validated TRNSYS model for forced circulation solar water heating systems with flat plate and heat pipe evacuated tube collectors. *Applied Thermal Engineering* (2011): 31(8-9); 1536-1542.
- L.M. Ayompe, A. Duffy, M. Mc Keever, M. Conlon and S.J. McCormack. Comparative field performance study of flat plate and heat pipe evacuated tube collectors (ETCs) for domestic water heating systems in a temperate climate. *Energy* (2011): 36(5); 3370-3378.

#### **Working Paper(s)/Papers under review**

- L.M. Ayompe, A. Duffy, S.J. McCormack and M. Conlon. Energy and exergy analysis of a small-scale grid-connected photovoltaic system. *Energy Conversion and Management*.
- L.M. Ayompe and A. Duffy. Feed-in tariff design for domestic scale grid-connected PV systems using high resolution household electricity demand data.
- L.M. Ayompe and A. Duffy. Status of solar water heating systems in Ireland
- G. Conroy, A. Duffy and L.M. Ayompe. Economic, energy and GHG emissions performance evaluation of a Whispergen Mk 4 Stirling engine  $\mu$ -CHP unit in a domestic dwelling.
- G. Conroy, A. Duffy and L.M. Ayompe. Validated dynamic energy model for a Stirling engine  $\mu$ -CHP unit using field trial data from a domestic dwelling.

#### **Conference Papers/Presentations**

- L.M. Ayompe, A. Duffy, S.J. McCormack, M. Conlon. Field performance evaluation of domestic-scale solar water heating systems with flat plate and heat pipe evacuated tube collectors. *Engineering Sustainability 2011 Conference, David Lawrence Convention Center, Pittsburgh, Pa, USA*, April 10-12, 2011.
- L.M. Ayompe, A. Duffy, S.J. McCormack, M. Conlon. Economic Analysis of Domestic Solar Water Heating Systems in Ireland – Future Trends and Policy Implications. *The Challenge of Sustainability 2008 Conference, Dundalk Institute of Technology*, 20th June, 2008.
- L.M. Ayompe, A. Duffy, S.J. McCormack, M. Conlon. Economic and environmental performance analysis of PV systems for domestic applications in Ireland. *Engineering Sustainability 2009 Conference, David Lawrence Convention Center, Pittsburgh, Pa, USA*, April 19-21, 2009.