

IRENE DZIDZOR DARKU

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CAREER GOAL: *Bio-energy Engineering Consultant / Faculty member*

EDUCATION

- 2007 - PhD-pending, Agricultural and Biological Engineering, **Pennsylvania State University, USA**
- 2003 – 2004 MPhil Engineering for Sustainable Development¹, **University of Cambridge, UK**
- 1998 – 2002 B.Sc. Agricultural Engineering², **Kwame Nkrumah University of Science & Technology (KNUST), Ghana**
- 1989 – 1994 Senior School Certificate [S.S.C], United Faith Tabernacle College. Jarawan-Kogi, Plateau State, Nigeria

EXPERIENCES

• Professionally Related Experiences

- 2005 *Indoor Air Pollution Monitoring* [03/05-04/05, 09/05-10/05], **Enterprise Works Ghana**. Screening and Selection of Households, Collection of Emission Data, Post- sampling
- 2004 *'Exploring the Potential of Oil Palm Fiber as a Clean Solid Fuel to Meet Local Energy Needs in Ghana'*, **University of Cambridge**. Research Work for MPhil Dissertation
- 2004 *Feasibility Study of the Wisbech Wind Turbine* [01/04 – 03/04], **Cambridgeshire County Council, UK**. Member Consultancy Team
- 2002 – 2003 *Teaching Assistant* [08/02-09/03], **Department of Agricultural Engineering (D.A.E)**, KNUST, Ghana. Engineering Drawing Tutorials, Production/reproduction of Drawings using AutoCAD, assisted in the Construction of an Ostrich-egg Incubator
- 2002 – 2003 *Secretary* [Part-time], Joe Nsiah Consult (consultant in Boiler, Kilns, Furnaces, Ceramic Machineries and Products). Technical Report Writing/One of Firm's Representative
- 2001 – 2002 *Construction and Testing of a Mounting Frame for Cassava Harvester*, KNUST, Ghana. B.Sc. Project Work
- 2000 Vacation Training, **Agricultural Engineering Company Ltd (AGRICO)**, Ghana. Welding and other fabrication methods, assisted in the Construction of a Mechanical Cassava Grater

• Supporting Experiences

- 2001 *'Visitorship Coordinator'*- Marine & Freight Exhibition [07/01 – 09/01], Expo Link Ghana Ltd, Ghana
- 2000 *Conference/Exhibition Organizer* – Habit 2000, Expo Link Ghana Ltd, Ghana
- 1997 – 1998 *Receptionist*, Advanced West Coast Marketing Co. Ltd, Accra –Ghana
- 1994 – 1997 *Stock Taker & Purchasing Officer*, Stello Enterprise, Plateau State, Nigeria

PUBLICATIONS

- Darku, I. D and K. Essien. 2009. Book review: Oil, Democracy, and the Promise of True Federalism in Nigeria. [*African and Asian Studies*](#), Vol. 8 (3): 338-340
- Darku, I.D. 2005. Exploring the Potential of Oil Palm Fiber as a Clean Solid Fuel to Meet Local Energy Needs in Ghana *in Hunger without Frontiers; Proceedings of the 2nd West Africa Society of Agricultural Engineering International Conference on Agricultural Engineering*, September 20 -24, 2004, Kwame Nkrumah University of Science & Technology (KNUST), Ghana, Pg 447 – 461. Design Press: KNUST, Ghana.

PRESENTATIONS

- "Effect of wet storage on the value of corn stover as a biofuel feedstock." Poster presentation at the 31st Symposium on Biotechnology for Fuels and Chemicals, May 3 - 6, 2009, San Francisco, CA.
- Lignocellulosic feedstock value after wet storage: correlating dry matter loss, structural composition, and environmental variables. Poster presentation at the Northeast Renewable Energy Conference, August 25-28, 2008, State College, Pennsylvania, USA.
- Exploring the Potential of Oil Palm Fiber as a Clean Solid Fuel to Meet Local Energy Needs in Ghana. Oral presentation at the International Conference on Agricultural Engineering, September 20 -24, 2004, Kumasi, Ghana.
- Small scale irrigation projects in Ghana -evaluating sustainability principles. Poster presented at Center for Sustainable Development, February, 2004, University of Cambridge, UK.

TRAININGS

- ‘Penn State Biomass Refining Short Course’ – Organized by Penn State Biomass energy Center [8 - 10 June, 2008]
- ‘Indoor Air Pollution Monitoring’ – Organized by Enterprise works Ghana in collaboration with University of California-Berkeley [21 – 25 March, 2005]
- ‘Start your Business’ – a 5-day workshop organized by the Business Advisory Committee (BAC) of the National Board for Small Scale Industries (NBSSI) [30 Oct – 3 Nov, 2001]
- ‘Entrepreneurial Awareness’ – a 3-day seminar organized by the Business Advisory Committee (BAC) of the National Board for Small Scale Industries (NBSSI) [25 – 27 April, 2001]
- ‘Acquiring Leadership and Entrepreneurial Skills’ – Organized by Foundation for Future Leaders Int. (FFLI) [23 – 25 Nov, 2000]

ASSOCIATION/ORGANIZATION

- Fellow, Cambridge Commonwealth Society, 06/2004 -
- Campus Children Holidays, UK. 03/2004 – 08/2004
- Agricultural Engineering Education & Awareness Team, 2001 – 2002
- Member, Electoral Commission, Church of Christ Campus Ministry (CCCM), 2001 – 2002
- Member, Editorial Board, Church of Christ Campus Ministry (CCCM), 2000 – 2002
- Member, TRATECH (Trade & Technology) Committee, D.A.E - KNUST, 1998 – 2000

LEADERSHIP

- 1995 – 2005 Children Sunday School Teacher
Started ‘Sisters Fellowship’ in CCCM, KNUST. Some of our Duty included Hospital and Prison Visitation
- 1999
- 2001 Assisted Sisters in St. Louis Teachers Training College to start a Fellowship

- 2000 – 2002 Women’s Group Leader, CCCM
- 2002 – 2003 AGRIPHILIA – a Personal Initiative using one of the departmental Boards to educate
& Boost Morale of freshmen and Continuing Students in Agricultural Engineering

AWARDS/ACHIEVEMENTS

- Scholarship, Cambridge Commonwealth Trust, 2003 – 2004
- Dean’s List, School of Engineering, KNUST, 07/2002
- Best Student Award, Dept. of Agric. Eng. KNUST, [Ghana Government Scholarship], 2000
- Best Campus Mum & Technological Queen, Campus Children Holidays, UK, 08/2004
- First female to obtain a First Class Honors in Agricultural Engineering in Ghana and the Only One in the 2001/2002 Graduating Class.

¹ Courses included but not restricted to: Environment and Sustainability, Planning for Sustainable development, Changing Organizations towards Sustainability, Fundamental Disciplines and Management of Innovation and Technology – from the Judge Institute of Technology.

² Some courses of interest includes: Renewable Energy Systems and Management, Technical Report writing, Environmental Studies and Sociology in addition to the more Technical courses.