



Dr. Emmanuel Amagu ECHIEGU

Residential/Permanent Home Address

3 Chief Echiegu Street
Behind Women Development Centre
Abakaliki, Ebonyi State, Nigeria

Office Address

Department of Agricultural and Bioresources Engineering
University of Nigeria
Nsukka, Enugu State, Nigeria

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emmanuel.echiegu@unn.edu.ng

2. **BIODATA**

Date of Birth: 22 May 1956
Place of Birth: Ebia Unuhu, Abakaliki LGA, Ebonyi State, Nigeria
State of Origin: Ebonyi State
Marital Status: Married with four children
Spouse: Dr. Mrs. Nkechi B. Emma-Echiegu (nee Anieke)

ACADEMIC QUALIFICATIONS

DEGREES

<u>DEGREES</u>	<u>DATE</u>	<u>AWARDING BODY</u>
B.Sc (Agric Eng'ng) 2 nd Class Hon.Upper Division	August 1982	University of Ife (now Obafemi Awolowo University) Ile-Ife, Nigeria
M.Eng (Agric Eng'ng)	1986	University of Nigeria, Nsukka, Nigeria
Ph.D. (Agric Eng'ng)	1992	Technical University of Nova Scotia (now Faculty of Engineering, Dalhousie University), Halifax, Nova Scotia, Canada

DIPLOMA/PROFESSIONAL QUALIFICATION

City and Guilds in Basic Engineering Craft Studies (Passed with distinction)	1973	City and Guild of London Institute
City and Guilds in Internal Combustion Engine Work (Passed with distinction)	1974	City and Guild of London Institute
City and Guilds in Vehicle Work (Passed with distinction)	1974	City and Guild of London Institute
Registered Engineer (Registration No 25,905)	2012	Council for the Regulation of Engineers in Nigeria (COREN)

AREAS OF SPECIALIZATION

Major:

- Farm Structures and Environmental Control Engineering

Minor:

- Bio-Environmental Engineering (including waste characterization, waste management and utilization, bioremediation/phyto-remediation of

contaminated air, water and soil, environmental assessment and development of environmental technology)

- Soil and water Engineering
- Bio-Energy and Solar Thermal Energy Engineering

MEMBERSHIP OF PROFESSIONAL SOCIETIES

Member: Nigerian Society of Engineers
Member: Nigerian Institution of Agricultural Engineers
Fellow African Scientific Institute
COREN Registered Engineer No **R. 25,905**

AREAS OF RESEARCH INTEREST

Farm Structures Planning and Design
Climate control in farm buildings and structures
Solar Energy Applications in Agriculture
Agricultural Waste Characterization, Management, utilization and System design
Anaerobic fermentation kinetics
Biogas production, optimization and utilization
Bio-remediation
Microbial fuel cells
Biomass and Bio-energy

SOME COMPLETED RESEARCH WORKS

1. The Development and Testing of a Passive Solar Heated Poultry Chick Brooder.
2. Development of an In-House Computer Based Data Acquisition and Control System for Anaerobic Digesters.
3. Investigation of the Dynamic Response of Anaerobic Reactors to Diurnally Cyclic Environmental Temperature.
4. Dynamic Modeling of The Effects of Diurnally Cyclic Temperature on Anaerobic Reactor Performance
5. Enhanced Biological Sealing for Earthen Manure Storage
6. Pollution Potential of Land Disposal of Cheese Whey
7. Development, Evaluation and Modeling of No-Mix Anaerobic Reactors
8. Evaluation of industrial and domestic effluents for various purposes
9. Optimization of Blanney-Morin Nigeria (BMN) model for the estimation of evapo-transpiration in Enugu Nigeria
10. Development of an Enterprise Planning and Management Software for Swine management.

CAREER WITHIN THE UNIVERSITY

<u>POST</u>	<u>DATE</u>
<u>Graduate Assistant</u>	<u>15 July 1983 – 20 August 1986</u>
<u>Assistant lecturer</u>	<u>21 August 1986 – 20 August 1987</u>
<u>Confirmation of Appointment</u>	<u>21 August 1986</u>
<u>Lecturer II</u>	<u>21 August 1987 – 30 September 1992</u>
<u>Lecturer I</u>	<u>1 October 1992 – 7 July 1994</u>
<u>Leave of Absence to serve Enugu and Ebonyi State Governments in various capacities</u>	<u>1994 – 2012</u>
<u>Senior Lecturer</u>	<u>8 July 1994 - Date</u>

ADMINISTRATIVE EXPERIENCE WITHIN THE UNIVERSITY

Committee	Position Held	Date
Faculty SIWES Committee	Member	1991 - 1994
Faculty Consultancy Services Committee	Member	1991 – 1994
Faculty Exams Committee	Member	1991 – 1994
Faculty Research Grant Committee	Member	2013 - 2015
Departmental SIWES Committee	Coordinator	1991 – 1994
Departmental Library Board	Chairman	1991 - 1994
Departmental Research Grant Committee	Chairman	2013 – 2015
Departmental Curriculum Committee	Chairman	2016 – 2017
Departmental Fellowship and Linkages	Coordinator	2016 – 2017
Faculty Board of Agriculture	Faculty of Eng'ng Rep	2016 – 2017
Faculty Curriculum Committee	Member	2016 – 2017
Faculty Linkages Committee	Member	2016 – 2017
Faculty Honorary Degree Committee	Member	2016 – 2017

EXTERNAL EXAMINATION

Examination	Institution	Date
Nigerian Society of Engineers, Enugu Branch Professional registration examination.	Nigerian Society of Engineers, Enugu Branch	1996 - 1997
Nigerian Society of Engineers, Nsukka Branch Professional registration examination.	Nigerian Society of Engineers, Nsukka Branch	1997

STUDENT SUPERVISION**(a) Undergraduates**

S/N	PROJECT/CANDIDATE SUPERVISED	DATE	DEGREE AWARDED	CO-SUPERVISOR
1	Anoshiri J.I. – Design, Constriction and Testing of a Manually Operated Poultry Feed Dispenser	1985	B.Eng	U.G.N. Anazodo
2.	Okafor. I. – Modification and Testing of the UNN Brooding Chamber.	1886	B.Eng	U.G.N. Anazodo
3.	Ndubisi, F.C. – Water Use Study and Hydrologic Design of Irrigation Schemes for vegetables.	1986	B.Eng	G.O. Chukwuma
4.	Ogbuu, M.C. – Water Use Study and Hydrologic Design of Irrigation Schemes for vegetables.	1986	B.Eng	G.O. Chukwuma
5.	Ihueze, C.C. – Design and Construction of Passive Solar Manure Dryer	1987	B.Eng	U.G.N. Anazodo
6.	Igbokwe, F.C. – Development of a Table Model Poultry Egg Incubator	1987	B.Eng	U.G.N. Anazodo
7.	Abiri, R.O. – Design of an Above Ground Storage Structure for Yam	1992	B.Eng	G.O.I. Ezeike
8.	Aneke, V.I. – Design of a Continuous Screw Press for Groundnut Oil Extraction	1992	B.Eng	E.U. Odigboh
9.	Chukwueke, G.C. – Design of Silo for Rice	1992	B.Eng	G.O.I. Ezeike

Paddy Storage				
10.	Ibeagi, A.O. – Labour Requirement in a Poultry House	1992	B.Eng	-
11.	Mbe, A.G. A Storage System Design – The Storage Bay.	1992	B.Eng	G.O.I. Ezeike
12.	Onuma, I.A. Continuous Production of Methane from Poultry Manure Using a Plug Flow Anaerobic Reactor	1992	B.Eng	U.G.N. Anazodo
13.	Opara, I.N. – Calorific value of Cow Dungs	1992	B.Eng	G.O.I Ezeike
14.	Ugwuoke, Ethel Chinenye – Evaluation of Rainfall Erosivity Indices for Nsukka, Enugu State, Nigeria	2012	B.Eng	-
15	Ani, Chukwudi Christian – The Impact of Minicipal Solid Waste on Agricultural Soils – A case Study of ESWAMA Dump Site, Ugwuaji, Enugu State	2012	B.Eng	-
16	Onu, Augustine Afamefuna – Use of Different Palm Tree Fibre in Soil Erosion Control (Rill Erosion) in Enugu Ezike, Igbo-Eze North LGA	2012	B.Eng	-
17	Ugwuanyi, Bruno Ugichukwu – The Effect of Poor Drainage in an Irrigated Plot	2012	B.Eng	-
18.	Eze, T.E. Design and Construction of a 1000V Inverter with Controls for Powering Livestock Building	2014	B.Eng	-
19	Eya, Ogochukwu Ruth – Analyses of Wastewater from the University of Nigeria Wastewater Treatment Plant for Irrigation Purposes	2014	B.Eng	-
20.	Gugu, Okwudili Marcel – Environmental Impact Poultry Production on Poultry Workers – A Cse Study of Sedan Farms, Emene, Enugu	2014	B.Eng	-
21.	Nweke, Chibuzor Anthony – Determination of Optimum Packaging and Storage Properties of Packaged Garri	2014	B.Eng	-
22.	Nwokolo, Jennifer Ugonna – Survey of Farm Machinery and Implement Used in Enugu State From 1999 – 2010	2014	B.Eng	-
23.	Ude, Emmanuel Ifeanyi – Comparison of the Efficiency of Saw dust, Coconut Fibre and Wood Chips in Purification of Crude Oil Polluted Water	2015	B.Eng	-
24.	Anih, Benjamin Uchenna – The Environmental Impact of Timber Conversion and Processing – A case Study of Enugu Timber Market	2015	B.Eng	-
25.	Idogwu, Onyekachi S. – Evaluation of the Pollution Potential of an Industrial Effluent from Solive vegetable Oil Processing Plant, Nsukka LGA, Enugu State	2015	B.Eng	-
26.	Okeke, I.J. – Design and Construction of a Cassava Stem Cutting Machine	2015	B.Eng	-
27.	Anih, Chukwuemeka Isaiah – The Relationship between Weight and some	2015	B.Eng	-

Selected Dimensions of Yankasa Sheep				
28.	Chukwu, Valentine Chinedu – The Relationship between Live Weight and Linear Body Measurement of Red Sokoto Goat	2015	B.Eng	-
29.	Njoku, Emeka Jeremiah – Pollution Potential of Land Disposal of Automobile Liquid Waste	2015	B.Eng	-
30.	Obi, Chukwuka Patck – The Impact of Solid Waste on Agricultural Soils – A case Study of Enugu State Waste Management Authority Major Dump Site, Oodoro, Nsukka, Enugu State	2015	B.Eng	-
31.	Ede, Chika Nicholas – Re-Examination of the BMN Model for Estimating Evapotranspiration, ET, in Enugu, Nigeria	2015	B.Eng	-
32.	Modification of the UNN Swine Enterprise Planning and Management Software	2016	B.Eng	-

(b) Postgraduates

Project/candidate supervised	Date	Degree Awarded
Evaluation of Rice Husk and Saw Dust Ash as Pozollanic materials for the improvement of the Properties of Cement - by Udo, Chukwuemeka	ongoing	M.Eng (in view)
The Effect of Water Hyacinth on the Physicochemical Properties of Fish Pond Water and Total Fish Biomass – by Ezeugwu, Lilian Ijeoma	Ongoing	M.Eng (in view)
The effects of land disposal of Spent Engine Oil on Ground Water Quality – by Amadi, Adaugo	Ongoing	M.Eng (in view)

(c) Membership of PhD Guidance Committee

Candidate's Name	Project Topic	Date	Supervisor
Ojike, Onyekwere PG/PhD/13/64884	Comparative Evaluation of a Solar Air Heater Using Different Solar Thermal Storages	Ongoing	Prof. W.I. Okonkwo
Okechukwu, Michael Emeka PG/PhD/12/61603	Development of Spatially Distributed Rainfall, Evapotranspiration and Irrigation Requirement Maps for Different Crops in Sourh-East Nigeria	Ongoing	Prof C.C. Mbajorgu
Elendu, Nduka-Aku O PG/PhD/11/59448	Water Requirement for Cocoyam Irrigation on Sandy Clay Loam Soil of Nekede, Imo State	Ongoing	Prof G.O. Chukwuma
Udom, Ikpe Jimmy PG/PhD/13/66723	Biological Treatment of Piggery Effluent Using a Constructed Wetland - Design, Construction, Performance Evaluation and Development of Process Model.	Ongoing	Prof C.C. Mbajorgu

JOURNAL EDITORSHIP AND ARTICLE REVIEWS

(a) Editorship of Reputable Journals

JOURNAL	DURATION OF APPOINTMENT
1. Editor-in-Chief (Africa): Journal of Fundamentals of Renewable Energy and Applications ISSN: 2090-4541 Published by OMICS International, USA http://www.omicsonline.com/open-access/fundamentals-renewable-energy-applications.php	2014 – Date
2. Editor (Africa): International Journal of Bioprocessing and Biotechnological Advancements. Published by Science Tech Central, Canada. http://www.scitcentral.com/journals.php?journal=41&journal_title=International%20Journal%20of%20Bioprocess%20&%20Biotechnological%20Advancements	2015 - Date

(b) Professional Review of papers for Reputable Journals

Title of Paper Reviewed	Journal	Date
1. The Effect of media Fill-Ratio on Biogas Yield from Laboratory-Scale Poultry waste Digester	Journal of Agric Science and Technology	July 1992
2. The prospects of biogas technology in agricultural development in Nigeria	Journal of Agric Science and Technology	December 1992
3. Fecal Bacterial Death Rate of an Institution Oxidation Ditch	Journal of Agricultural Engineering and Technology	June 1993
4. Intensive System of Livestock Management in Nigeria: A Challenge to Agricultural Engineers	The Nigerian Engineer	January 1993
5. Preservation of Foodstuffs with Biogas Powered Refrigerator	Nigerian Journal of Solar Energy	January 1994
6. Temperature Effects on Biogas Production from Fresh Water Aquatic Weed.	Nigerian Journal of Solar Energy	January 1994
7. Species Diversity and Distribution of Zooplankton of Western Yamuna Canal in Yamunanagar (Haryana) with Special Reference to Industrial Pollution	International Research Journal of Public and Environmental Health	June 2014
7. Examination of two brands of sachet water and tap water for pathogenic microorganisms	Advanced Journal Of Medical Report And Reviews	January 2015
8. Effects of Roasting on the Physical Properties of <i>Monodora myristica</i> (African Nutmeg).	Internal Food Research Journal	June 2016
9. Assessment of The Water Quality of Umuariagha River, Abia State, Nigeria	African Journal of Environmental Sciences and	July 2016

<u>Title of Paper Reviewed</u>	<u>Journal</u>	<u>Date</u>
10. An Evaluation of Biogas Production From Anaerobic Digester of a Constructed Wetland Domestic Wastewater Treatment Plant	Technology African Journal of Environmental Sciences and Technology	July 2016

CONSULTANCY SERVICES

1986. Worked with a team of AGROMECH Consultants that evaluated the multi-million Naira 5 tonne per hour Federal Government of Nigeria, Rice Processing Plant at Makurdi and Badeggi, Nigeria
- 1991 Member of Consultancy Team, National Survey on Farm Tractors and Machinery Rehabilitation Programme in Nigeria – Zone 4: Akwa Ibom, Anambra, Imo and Rivers. Federal Dept of Agriculture, Federal Ministry of Agriculture, Abuja.
- 1996 Associate Researcher, Cash Cropping Project in Enugu Urban and Peri-urban Sponsored by Overseas Development Association (United Kingdom), Implemented by Natural Resources Institute (UK) and Coordinated by the British Council, Enugu.
- 1999 Principal Consultant to UNDP Monitoring Office, Ebonyi State on Enhancing Protein Intake in the State through assistance to Ebonyi State Fish Farmers.
- 2002 Supervising Consultant to Anambra-Imo River Basin Development Authority on Constituency Water Projects at Ameka Ezza, Eburnwana and other locations in Ebonyi State.
- 2005 Member of Assessment Consultancy Team on the Rehabilitation of Distressed Dams and Irrigation Facilities in Ebonyi State. Federal Ministry of Water Resources, Abuja.
- 2009 Member of Consultancy Team. Ebonyi State Vision 20:2020: Blueprint for the Transformation of Ebonyi State. Office of the Secretary to Ebonyi State Government, Cabinet Office, Abakaliki.
- 2016 Principal Consultant, Ebonyi State IFAD-Value Chain Development Programme on Irrigation Studies for The FGN/IFAD VCDP Ezillo Irrigation Scheme.

OTHER PROFESSIONAL EXPERIENCE

- 1982 – 1983 Pupil Irrigation Engineer, Hadejia-Jam'are River Basin Development Authority, Kano River Project, Kadawa, Kano (NYSC)
- Duties** *Assisting the Chief Irrigation Engineer in the maintenance of Tiga dam and in irrigation facility management.*
- 1994 – 1996 Chief Engineer, World Bank assisted Enugu State Agricultural Development Programme (ENADEP)
- Duties** *(i) Design, construction and supervision of rural feeder roads projects, rural water supply projects (boreholes, spring water schemes, rain water harvesting schemes, hand dug wells, washbores and tube wells, etc), small scale irrigation schemes.*
- (ii) Maintenance and repairs of all project vehicles, plants, equipment, buildings and other structures.*
- (iii) Sourcing for and introduction of small scale farm mechanization and irrigation technologies to rural farmers.*
- (iv) Supervision of over 75 engineering staff of the programme.*

- 1995 – 1996 Adjunct Senior Lecturer, Department of Agricultural Engineering, Enugu State University of Science and Technology, Enugu. *Teaching*
- 1996 – 1997 Acting Programme Manager, Ebonyi State Agricultural Development Programme (EBADEP), Km 8, Abakaliki-Ogoja Highway, Onuebonyi Izzi LGA, Ebonyi State
- 1997 – 1999 Hon. Commissioner, Ministry of Agriculture, Natural Resources and Rural Development, Ebonyi State, Nigeria.
- Duties:** *Chief Executive of the Ministry responsible for the formulation of the agricultural policies and coordinating all agricultural projects and programmes of the State.*
- 1999 – 2007 Adjunct Senior Lecturer, Faculty of Agriculture, Ebonyi State University, Abakaliki
- 1999 – 2005 Programme Manager, World Bank Assisted Ebonyi State Agricultural Development Programme.
- Duties:** *Chief Executive responsible for the implementation of the programmes of the State ADP as approved by ADP Executive Committee, the Project Coordinating Unit of the Federal Ministry of Agriculture and Rural Development, the International Fund for Agric Development (IFAD) and the World Bank.*
- 2005 - May, 2007 Hon. Commissioner, Ministry of Agriculture and Food, Ebonyi State, Nigeria.
- Duties:** *Chief Executive of the Ministry responsible for the formulation of the agricultural policies and coordinating all agricultural projects and programmes of the State.*
- August 2007 - 2011 Hon. Commissioner, Ministry of Agriculture and Natural Resources, Ebonyi State, Nigeria.
- Duties:** *Chief Executive of the Ministry responsible for the formulation of the agricultural policies and coordinating all agricultural projects and programmes of the State.*

OTHER PROFESSIONAL ACTIVITIES

- 1991 – 1994 Member, University of Nigeria/Department of Agricultural Engineering - Katholic University, Leuven/Centre for Irrigation Engineering Linkage Research Project Team on Rural Water Supply Improvement.
- 1993 – 1994 Team Leader/Coordinator, Passive Solar Energy Chick Brooder Research Group, National Centre for Energy Research and Development, University of Nigeria, Nsukka.
- 1993 – 1994 Team Leader/Coordinator, Biogas Plant Development Research Project, National Centre for Energy Research and Dev., UNN.
- 1994 – 1996 Member, Personnel Management Board (Junior and Senior Staff), Ministry of Information and Culture, Enugu State, Nigeria.
- 1994 – 1996 Member, Personnel Management Board (Junior and Senior Staff), ENADEP, Enugu.
- 1995 – 1996 Member, Enugu State of Nigeria Think Tank Committee on Agriculture.

1997	Resource person, UNDP Project on Poverty Alleviation, Enugu State.
1997 – 1999	Member, National Council on Agriculture, Federal Republic of Nigeria.
1997 – 1999	Chairman, Land Development Committee, National Agric Land Development Authority, Ebonyi State.
1997 – 1999	Chairman, Board of the Supervised Agric Credit Loan Board, Ebonyi State.
1999 – 2005	Member, National Agricultural Development Committee, Federal Ministry of Agriculture and Rural Development.
1999 – 2005	Member, Project Coordinating Committee (PCC) and Technical Coordinating Committee (TCC), Project Coordinating Unit, FMARD, Abuja.
2001 – 2005	Ebonyi State Coordinator, Special Programme on Food Security, sponsored by the Federal Government of Nigeria and implemented by the Food and Agricultural Organization of the United Nation.
2002 – 2003	Member Technical Sub-Committee on Production, Inputs and Crop Protection, Presidential Committee on Increased Rice Production and Export.
2004	Member Presidential Technical Committee on the proposed Southern African Farmers Investment in Nigerian Agricultural Sector.
2005 – 2007	Member, National Council on Agriculture, federal Government of Nigeria.
2005 – 2007	Member, Finance and General Purpose Committee, Ebonyi State Executive Council.
2005 – 2007	Member, Board of Izhia Agro Industries Ltd.
2005 – 2007	Member, Presidential Committee on Financing for Agriculture. Federal Republic of Nigeria.
2006 – 2007	Chairman, Ebonyi State Rice Development Committee.
2006 – 2007	1 st Vice-Chairman, Ebonyi State Implementation Committee for the Federal Government of Nigeria ₦50 billion Agric loan scheme.
2006 – 2007	Chairman, Ebonyi State Implementation Committee on Animal Traction and Hand Tools Technology Programme.
2007 – Date	Member, National Council on Agriculture, Federal Republic of Nigeria.
2009 – 2011	Chairman, Ebonyi State Executive Council Standing Committee Agriculture and Industry.
2015–2016	Chairman, Ebonyi State Advisory Committee on Agriculture
2016 – Date	Member, Ebonyi State Committee of Rice Production

EXTRA-CURRICULAR ACTIVITIES

1979/80	Assistant Secretary, Nigerian Federation of Catholic Students, University of Ife, Ile-Ife.
1980/81	P.R.O. Agricultural Engineering Society, University of Ife, Ile-Ife.
1080/81	PRO Skala Klobb, University of Ife, Ile-Ife
1983/84	Secretary-General, Graduate Student Union, University of Nigeria, Nsukka, Nigeria.

1988/89	Secretary, African Student Association, Halifax, Nova Scotia, Canada.
1989/90	President Graduate Student Union, Technical University of Nova Scotia, Halifax Nova Scotia.
1989/90	Vice-President, Student Union, Technical University of Nova Scotia, Halifax Nova Scotia, Canada.
1989/90	Writer and Editor, First TUNS International Students' Handbook.
1992 - 1998	Member, Board of Trustees, Federated Abakaliki Students Union Education Endowment Fund.
1993 - 1994	Secretary, African Network for the Prevention and Protection against Child Abuse and Neglect (ANPPCAN), Nsukka Chapter - an NGO.
1996 - 2015	Member Women Action Research Organization, a non Governmental Organization.
2000 - DATE	Member Knight of St. John International (A Catholic Religious Organization).
2004 - DATE	Patron, Ebia Unuhu Improvement Union, Abakaliki, Ebonyi State
2005 - 2011	Patron, Agriculture and Allied Workers Union, Ebonyi State Chapter.
2006 - DATE	Patron, Unwuekumenyi Welfare Association. Abakaliki, Ebonyi State.
2015 – DATE	Chairman, Board of Trustees, Ebia Unuhu Development Union

COMPUTER LITERACY: Fully computer literate including the use of computer for word and data processing, graphics, programming, data acquisition and controls.

SCHOLARSHIPS/ HONOURS/ AWARDS

1977 - 1982	Anambra State of Nigeria Undergraduate Scholarship
1983 – 1986	University of Nigeria, Graduate Assistantship.
1987 – 1991	Canadian International Development Agency (CIDA) Graduate Scholarship.
1990	Gold 'T' Award for Outstanding Contribution to Technical University of Nova Scotia and the Student Body.
2005 – Date	Listed in all Editions of "Nigeria Who is Who" published by the Nigerian Biographical Association.

WORKSHOPS AND CONFERENCES ATTENDED WITH DATES

(A) TRAINING WORKSHOPS AND SEMINARS

1. Seminar/Workshop on Water Quality. Continuing Education Centre, Technical University of Nova Scotia, Halifax, Canada. 1988.
2. Seminar/Workshop on Treatment of Toxic Industrial Effluent. Continuing Education Centre, Technical University of Nova Scotia, Halifax, Canada. 1988.

3. Seminar/Workshop on Indoor Air Quality. Continuing Education Centre, Technical University of Nova Scotia, Halifax, Canada. 1989.
4. Workshop on Passive Solar Energy Applications in Buildings. Solar Energy Society of Canada Inc. World Trade and Convention Centre, Halifax, Canada. 1990.
5. Training Workshop on Solar Drying Technologies for Agriculture and the Industry (CRAET). National Centre for Energy Research and Development, University of Nigeria, Nsukka. 1992. (Served as Resource Person)
6. Training Workshop on Solar Drying Technologies for Agriculture and the Industry (CRAET). National Centre for Energy Research and Development, University of Nigeria, Nsukka. 1993. (Served as Resource Person)
7. Corporate Computer Training Course for ENADEP Management Staff organized by World University Computer Centre Ltd. Canute House. 19 Ogui Road, Enugu. May 30 June 3, 1994.
8. Three day course on Project Management and Monitoring organized by the Nigerian Society of Engineers, Benin Branch. University of Benin, 23 - 25 May, 1994.
9. Federal Agricultural Coordinating Unit (FACU) Regional Farm Mechanization Workshop for Enugu Region. Enugu State ADP. 1995.
10. UNDP/ILO Workshop on Labour Based Construction. Gateway Hotel, Ijebu-Ode, Ogun State, Nigeria. 1995.
11. Mni-PFT Workshop for National Fadarna Facility States organized by the Federal Agricultural Coordinating Unit (FACU), Sheddha, Abuja, 12 - 14 February, 1997.
12. International Fund for Agricultural Development (IFAD) Assisted Group Mobilization and Leadership Training organized by the Nigerian Integrated Rural Accelerated Development Organization (NIRADO) Enugu 11 & 12 June, 1996.
13. Strategic Management Workshop for effective management of Change for Sustainable Agriculture and Rural Development Programme organized by ARMTI, Ilorin in collaboration with PCU, Abuja. 15 - 17th August, 2000.
14. Proposal Writing Workshop sponsored by Winrock International in collaboration with USAID, DFID and Embassy of the Republic of Ireland and held at Metro Plaza, Abuja 2002
15. NSPFS information technology training workshop for managers organized by the National Special Programme for Food Security, in collaboration with the Project Coordinating Unit. Enugu, 8 - 10th November, 2004.

(B) PROFESSIONAL CONFERENCES/MEETINGS

1. Workshop on Poultry Production, Faculty of Veterinary Medicine, University of Nigeria, Nsukka. 1984 **Paper Read:** *Anazodo, U.G.N and E.A. Echiegu. 1984. The Development and Testing of a 50-Chick Low-Cost Brooding Chamber*.
2. First Regional Conference of Engineers from Southern ADP's/ADA's. FACU Office, Enugu. Sept. 7, 1985.

3. 9th Annual Conference of the Nigerian Society of Agricultural Engineers. Concorde Hotel, Owerri. Sept. 4 - 6, 1985 **Paper Read:** "*Anazodo, U.G.N and E.A. Echiegu. 1985. Some Low Cost Equipment for Poultry Production in Nigeria*"
4. 10th Annual Conference of the Nigerian Society of Agricultural Engineers. University of Ife, Ile-Ife, Nigeria. Sept. I - 5, 1986. **Paper Read:** "*Echiegu, E.A., U.G.N, Anazodo and F.I. Idike. (1987) Evaluation of a Passive Solar Energy Heated Poultry Chick Brooder*".
5. International Conference on Solar Energy for Rural Development. National Centre for Energy Research and Development, University of Nigeria, Nsukka. 1987 **Paper Read:** "*E.A. Echiegu and U.G.N Anazodo, 1986. The Development of Improved Brooding System: Low Cost and Passive Solar Models*"
6. North Atlantic Region Annual Conference of the American Society of Agricultural Engineers. St. Mary's University, Halifax, Canada. 1988. **Papers Read:**
 - (a) Ghaly, A.E., J. Pyke, C. Sambrook and E.A. Echiegu. 1988. A Nutrient Film System for Intensive Production of Field Crops From Anaerobically Treated Dairy Manure. ASAE Paper No. NAR-88-207
 - (b) Ghaly, A.E., J. Pyke, J. Henderson and E.A. Echiegu. 1988. Enhanced Biological Sealing for Earthen Manure Storage. ASAE Paper No. NAR-88-407
7. 2nd Food Processing Waste Conference. Georgia Tech Research Institute. Georgia Institute of Technology, Piedmont Plaza Hotel, Atlanta, Georgia, USA. 1988. **Paper Read:** "*Ghaly, A.E., E.A. Echiegu and J. Pyke. (1988) Pollution Potential of Land Disposal of Cheese Whey*".
8. 3rd Food Processing Waste Conference. Omni Hotel at CNN. Georgia Tech Research Institute. Georgia Institute of Technology, Omni Hotel at CNN, Atlanta, Georgia, USA. 1989. **Paper Read:** "*Ghaly, A.E., E.A. Echiegu and J. Pyke. (1989) Potential Air and Groundwater Pollution from Land Disposal of Cheese Whey*".
9. Summer Meeting of the American Society of Agricultural Engineers. Quebec City, Quebec, Canada. 1989 **Paper Read:**
 - (a) "*Echiegu, E.A. and A.E. Ghaly Kinetics of a No-Mix Continuous Flow Anaerobic Reactors. ASAE/CSAE Paper No 89-4096*"
 - (b) Ghaly. A.E. and E.A. Echiegu. Performance Evaluation of a No-Mix Continuous Flow Anaerobic Digesters Operating on Dairy Manure. ASAE/CSAE Paper No 89-4097
 - (c) Ugwu, I.U., A.E. Ghaly, E.A. Echiegu and U.G.N. Anazodo. Development of a Passive Solar Poultry Manure Dryer
10. 16th Annual Conference of the Solar Energy Society of Canada Inc. World Trade and Convention Centre, Halifax, Nova Scotia, Canada. 1990 **Papers Read:**
 - (a) Echiegu, E.A., N. Ben-Abdallah and A.E. Ghaly. Heating Energy Requirements of Anaerobic Reactors Operating under Temperate Ambient Conditions.
 - (b) Echiegu, E.A., N. Ben-Abdallah, U.G.N. Anazodo and F.I. Idike. (1990) Analysis of a Passive Solar Energy Heated Chick Brooder Operating Under Tropical Conditions.
11. North-Eastern Biological Engineering Conference. American Society of Agricultural Engineers. Montreal, Canada. 1991 **Paper Read:** "*Echiegu, E.A., A.E. Ghaly and G. Jollimore. Computer-based Data Acquisition and Control System for Anaerobic Digesters*".
12. 1st. Int'l Conf. on Eng'ng for Accelerated Rural Development. University of Nigeria. July 4-6. **Paper Read:** "*Anazodo, U.G.N. and E.A. Echiegu. (1991) Solar Energy Applications in Poultry Production Systems*".

13. 16th Annual Conference of the Nigerian Society of Agricultural Engineers. Federal University of Technology, Minna, Niger State, Nigeria. 1992 **Paper Read:** "E.A. Echiegu. *Dynamic Modeling of Continuous-Mix Anaerobic Reactors Operating under Diurnally Cyclic Temperature Environment*"
14. International Conference of the Implementation of Renewable and Alternative First Training Workshop on solar drying Technologies for Agriculture and Industry organized by Energy Commission of Nigeria, National Centre for Energy Research and development, University of Nigeria. June 15 – 18, 1992. **Paper Read.** "Echiegu, E.A. *Active Solar Dryers. Lecture #3*"
15. Second Training Workshop on solar drying Technologies for Agriculture and Industry organized by Energy Commission of Nigeria, National Centre for Energy Research and development, University of Nigeria. November 24 – 27, 1993 **Paper Read:**
 - (a) "Echiegu, E.A. *Application of Solar Power to Chick Brooding.*
 - (b) Echiegu, E.A. *Lecture #4: Review of Solar Drying Techniques II: Active (Forced Circulation) Solar Drying Design Applications*
 - (c) Echiegu, E.A. *Active Solar Dryers: Design And Applications.*
16. Conference of Directors of Engineering in Agriculture and Chief Agricultural Engineers in States Ministry of Agriculture and Parastatals. Makurdi, Benue State, Nigeria. Oct. 24, 1994.
17. 1995 National Council on Water Resources. Dubar Hotel, Kaduna, Nigeria. Nov. 28 - Dec. 1, 1995,
18. Emergency National Council on Agriculture. Nicon Noga Hotel Abuja. 1996.
19. 28th Regular Meeting of the National Council on Agriculture. House of Assembly Complex, Sokoto. 30 - 31st March, 1998.
20. Stakeholders Workshop on Guaranteed Agricultural Credit Scheme Fund organized by the Central Bank of Nigeria. Nicon Hotel Abuja. 1998.
21. Conference of Commissioners of Agriculture and Programme Managers of ADP organized by the World Bank, Federal Ministry of Agriculture and the PCU. Kano. 1999.
22. PTF Workshop on strengthening Agric Extension organized by the Petroleum Trust Fund and MASDER UK Ltd and held at Zodiac Hotel, Enugu. 1999 (Served as the Chairman).
23. 21st Regular Meeting of the National Agricultural Development Committee. Water Resources Institute, Kaduna. 26 - 27th July, 1999.
24. 1999 ADPs Funding Conference organized by the PCU Abuja and held at Nigerian Air Force Staff Club, Kaduna. 29 - 30th November, 1999 (presented briefs).
25. 1999 Project Coordinating Committee Meeting held at Water Resources Institute, Kaduna. Dec. 1 - 3, 1999.
26. National Dialogue on Sustainable Industrialization organized by the Federal Ministry of Industries in collaboration with State Ministries of Industries and organized private sectors in cooperation with the United Nation Industrial Development Organization (UNIDO). Nike Lake Hotel. 19 - 20th September, 2000.
27. 22nd Regular Meeting of the National Agricultural Development Committee. Bolingo Hotels and Towers and Agura Hotels, Abuja. 28 29th March, 2000.

28. Stakeholders. Workshop for National Fadama Development Programme, Phase II organized by the World Bank in collaboration with the PCU and the FMARD, Abuja. Nicon Hilton Hotel, Abuja. March 2000.
29. 30th Regular Meeting of the National Council on Agriculture. Sheraton Hotels and Towers, Abuja. March 30th - April 4th, 2000.
30. National Validation Workshop on Nigeria-IFAD Partnership for Rural Poverty Reduction. Rockview Hotel, Abuja. 23rd May, 2000.
31. Stakeholders Workshop on Root and Tuber Development in Nigeria organized by RAIDS, IFAD Cassava Multiplication Programme and the Fed. Ministry of Agric. And Rural Development. Gateway Hotel IjebuOde. 25 - 26th May, 2000.
32. 2000 ADPs Funding Conference. Michael Okpara Auditorium, Umuahia. 4th July, 2000.
33. 2000 Rregular Meeting of the Project Coordinating Committee. Michael Okpara Auditorium, Umuahia. 5 - 7th July, 2000.
34. South East Zonal REFILS Technical Coordinating Committee Meeting held at Abia State ADP, Umuhia. 2 - 27th July, 2000.
35. South East Zonal REFILS Technical Coordinating Committee Meeting held at National Root Crops Research Institute, October 30th 2000.
36. South-East Zonal Meeting of Commissioners of Agriculture, Permanent Secretaries, Director of NRCRI, ADP Programme Managers and PCU Regional Head. Abia ADP, Umuahia, Feb. 6th, 2001.
37. National Workshop on HIV/AIDS Prevention Initiatives for Key Functionaries of PCU and ADPs in the Federation. Conference Hall, Hill Station Hotel, Jos. 26 - 28th Feb. 2001.
38. 23rd Regular Meeting of the National Agriculture Development Committee. Concorde Hotel, Owerri. 27th - 28th March, 2001 (presented a memo).
39. 31st Regular Meeting of the National Council on Agriculture. Concorde Hotel, Owerri. 29th March - 4th April, 2001.
40. National Workshop on Strengthening of the Livestock Component of the Unified Agricultural Extension System organized by the National Livestock Development Division, FMARD Abuja. Arewa House, Kaduna. May 14, 2001.
41. 2nd Ebonyi State Anniversary Lecture organized by Ebonyi State Government to mark the 2nd aniverasry of the creation of Ebonyi State. Multi Purpose hall, Abakaliki. June 2001. **Paper Read:** *Echiegu, E.A 2001. Strategies for the sustenance of democracy in Ebonyi State Nigeria – Agricultural Economic and Rural Development Perspectives*".
42. South East Zonal REFILS Technical Coordinating Committee Meeting held at Anambra State ADP, Awka. 28 - 29th June, 2000.
43. Pre-Budget and Workplan Conference. PCU Abuja. 3 - 4th July, 2001.
44. First Regional PCC Meeting. Conference Room, Federal Secretariat, Enugu August 8-9 2001
45. Workshop on RTEP Project Implementation manual held by RTEP-PMU and IFAD at Gateway Hotel, Ijebu-Ode. September 24 - 25th, 2001

46. Project Concept Document review workshop for Fadama II held at Agura Hotel, Abuja and organized by the World Bank, Sept 27th, 2001.
47. SPFS End-of-Year Review workshop organized by the FAO and PCU and held at Conference Beach Hotel, Lokoja. July 23 - 24th, 2003.
48. Inaugural Meeting of the Presidential Committee on Increased Rice Production and Export, Ministers Conference Room, Federal Ministry for Agriculture and Rural Development, Abuja. September 19, 2002.
49. Meeting of the Technical Sub-Committee on Production, Inputs and Crop Protection, Presidential Committee on Increased Rice Production and Export, Office of the Deputy Governor, Akwa-Ibom State, Uyo. 31st October, 2002.
50. Workshop on Conflict Prevention organized by the Centre for Peace and Conflict Resolution, The Presidency, Abuja and held at Hilton Hotel, Abuja.
51. Meeting of the Technical Sub-Committee on Production, Inputs and Crop Protection, Presidential Committee on Increased Rice Production and Export, FMARD, Abuja, January 20, 2003
52. Report harmonizing meeting of the Presidential Committee on Increased Rice Production and Export, Deputy Governor's Office, Government House Abakaliki, Ebonyi State. February 5th - 8th 2003.
53. Stakeholders Workshop on Cassava Mosaic Disease Prevention organized by IITA Ibadan, International Cultural centre, Port Harcourt. 23rd - 25th June, 2003
54. National Agricultural Input Policy workshop organized by FMARD and DAIMINA Project and sponsored by the IFDC and USAID. Nicon Hilton Hotel, Abuja 26th - 21^h August, 2003.
55. Retreat for Ebonyi State top government functionaries organized by Ebonyi State Government. Women Development Centre, Abakaliki 3rd – 5th September, 2003.
56. Stakeholders Workshop on Analytical and Advisory Activity on Basic Agricultural Services for Poor farmers organized by the FMARD in collaboration with DFID, ADB, CIDA, DAIMINA and USAID, Chelsea Hotel Abuja, November 18 - 19th 2003.
57. Inaugural meeting of the National Strategic Food Reserve Development Committee held at Benue Hotel, Makurdi, 2 - 3rd December, 2003.
58. Meeting of the Presidential Technical Committee on the Proposed Southern African Farmers Investment in Nigerian Agricultural Sector, Conference Room, FMARD, Abuja, 16 - 19th January 2004.
59. SPFS Review meeting organized by the FAO and the PCU. Confluence Beach Hotel, Lokoja. February 25 - 2i^h, 2004.
60. Workshop on Attracting Investors into the Nigerian Oil Palm Industry held at Ritz Carlton Hotel, Kuala Lumpur, Malaysia, Nov 30 - December 4,2004.
61. Meeting for the harmonization of data collection procedures for the 2004/2005 field data trials of the Preemptive Management of Cassava Mosaic Disease Project organized by the Integrated Cassava Project, UTA High Rainfall Station Onne, Port Harcourt, 29th September, 2005.
62. 2nd 2005 South East/South South Zonal REFILS Technical Coordinating Committee Meeting held at Abia state ADP, Umuahia, 30th Sept, 2005.

63. 16th Triennial International Agricultural Exhibition, Agritech '06, Tel Aviv, Israel. 9th to 11th May, 2006.
64. Small and Medium Enterprises workshop organized by Abakaliki Chamber of Commerce, Industry, Mines and Agriculture, at the Women Development Centre, Abakaliki. May 18, 2006. **Paper Read:** *"Idike, F.I. and E.A. Echiegu. Harnessing the Agricultural Potentials of Ebonyi State through Small and Medium Enterprises. An Invited Paper"*
65. Forum of Ebonyi State stakeholders in Agriculture held at the Women Development Centre, Abakaliki. April 14, 2008. **Paper Read:** *"E.A. Echiegu 2008. An Overview of Ebonyi State Policies and Programmes in Agriculture"*.
66. African Fertilizer Summit, International Conference Centre, Abuja, June 9 - 13, 2006.
67. 2007 USAID-MARKETS Planning meeting, USAID-MARKETS Office, Lake Chad Crescent, Abuja, 3rd - 4th October, 2007.
68. Fadama III Policy Makers Sensitization Workshop organized by the Project Coordinating Unit, Federal Ministry of Agriculture and Rural Development, Chida International Hotel, 10th December, 2007.
69. Rice Stakeholders Forum, organized by USAID-MARKETS in collaboration with the Ebonyi State Ministry of Agriculture and Natural Resources, Pastoral Centre, Abakaliki, 2008
70. Trade Mission to South Africa organized by LOGADEF in collaboration with the National Assembly, 4th - 10th February, 2008.
71. Emergency National Council on Agriculture, Federal Ministry of Agriculture and Water Resources, Abuja. Nikon Hotel Abuja 9th April, 2008.
72. Fadama III Pre-Negotiation Meeting, Rockview Hotel, Abuja, May 6, 2008.
73. Governor's Brainstorming Meeting on Nigeria Food Crisis, Kwara State Governor's Lodge, Maitama Abuja, May 8 2008.
74. Seminar organized by Neighbourhood Watch and held at Ebonyi Hotels, Abakaliki. June 5, 2008. **Paper Read:** *"Echiegu, E.A. 2008. Greenhouse Effects: Its causes, Implication and or Role in Mitigating its Impact"*. Invited paper
75. Emergency National Council on Agriculture, Federal Ministry of Agriculture and Water Resources, Abuja. Nikon Hotel Abuja 22nd - 25th June, 2008.
76. 42nd Annual Conference of Agricultural Society of Nigeria, held at Ebonyi State University, Abakaliki. 19th - 23rd October, 2008.
77. UNICEF Stakeholders Sensitization and Intervention Plan Development Meeting on Global Food Crisis and Nutrition Security in Akwa-Ibom, Bayelsa, Benue and Ebonyi States of Nigeria, held at Grace Court Hotel and Suites, Abakaliki, Ebonyi State. 29th - 31st October, 2008. **Paper Read:** *"Echiegu, E.A. Promotion of Food Security: Government and Community Involvement – The Way Forward"*. Invited Paper
78. Workshop on Fish farming Prospects and Promises organized by Ebonyi State University Fishery Project and held at the College of Agric Sciences, Ebonyi State University, Abakaliki November 11 – 14, 2008. **Paper Read:** *"Echiegu, E.A. Fish Farming Prospects and Promises in Ebonyi State"*. A keynote paper.

79. Matriculation ceremonies lecture of the Federal College of Agriculture, Ishiagu, Ebonyi State, Nigeria. **Paper Read:** "*Echiegu, E.A. Entrepreneurship, a Key to Sustenance in Nigeria*". An invited paper.
80. National Council on Agriculture, held at Abuja, November 6th, 2008.
81. Trade Mission to India organized by National Chamber of Commerce, Industry, Mines and Agriculture, Abuja and India Trade Promotion Organization. Pragati Maidan, New Delhi, India November 14 – 27, 2008.
82. Investment and Securities Tribunal Public Enlightenment Workshop organized by Investment and Securities Tribunal, Abuja and held at Women Development centre, Abakaliki. 28th November, 2008
83. Interactive meeting of the Hon Minister for Agriculture and Water Resources with State Commissioners of Agriculture on the implementation strategies for various programmes in the agriculture sector held at Dunes Apartments, Maitama Abuja, 9th to 10th February, 2009
84. One day Export Workshop, organized by the Nigerian Export Promotion Council, Aba zone held at Ebonyi Hotels, Abakaliki, July 10, 2009. **Paper Read:** "*Echiegu, E.A. Grading and Packaging of Nigerian Rice for Export*". Invited paper.
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87. 37th Regular Meeting of the National Council on Agriculture and Rural Development held at State Secretariat, Katsina, Katsina State Nigeria. 2nd – 6th August, 2010.
88. First Apimondia Conference on Organic Beekeeping held at Sunny Beach, Black Ses Coast, Bulgaria, August 27 – 29, 2010. **Paper Read:** (a) "*Akpoke, C.C., S.O. Egwu and E.A. Echiegu Effects of Traditional and Sustainable Beekeeping Technology on Honey Bees and Human in Nigeria*" (b) "*Akpoke, C.C., C.E. Akunne, S.O. Egwu and E.A. Echiegu. The impact of sustainable beekeeping on Rural Livelihood.*"
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90. 2011 Nigerian Fertilizer Voucher Programme Stakeholders Workshop jointly organized by USAID, IFDC and National Food Reserve Agency and held at Immaculate Hotel and Suites, Abuja,
91. Presentation of 2011 Seasonal Rainfall Prediction and one day Stakeholder's Workshop organized by Nigerian Meteorological Agency and held at Nicon Luxury Hotel, Garki, Abuja. 17th – 18th February, 2011
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