

# CURRICULUM VITAE

## BIO DATA

**Name:** Kwabena Abrokwa Gyimah

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**Date of birth:** [REDACTED]

## WORK EXPERIENCE

- August 2020 – Date: Lecturer  
Department of Architecture, Kwame Nkrumah University of Science and Technology - Kumasi, Ghana.  
**Duties included:** Teaching, Research and Community Service
- September 2017 – Date: Researcher  
GyiKant Centre for Applied Research and Entrepreneurship - Kumasi, Ghana.  
**Duties included:** Applied research and Entrepreneurship training
- August 2017 – Dec. 2019: Graduate Assistant  
Department of Architecture, KNUST - Kumasi, Ghana.  
**Duties included:** Supporting Architectural studio staff and research
- October 2013 – Sept 2017: Adjunct Lecturer  
Department of Energy Studies, Yeshua Institute of Technology, Ghana.  
**Courses include:** Technical Drawing, Engineering Design, Sustainable Environment, Instrument and Measurements, Computer Aided Design, Planning and Sociology, Electrical Services Design, Energy in the Built Environment and Renewable Energy.
- January 2013 – June 2015: Renewable Energy and Environmental Consultant  
Green Haus Consults, Kumasi – Ghana.  
**Duties included:** Consultancy jobs in renewable energy and green buildings
- October 2014 – May 2015: Lecturer (Part Time)  
Department of Building, Trans Africa University College, Accra-Ghana.  
**Courses included:** Drawing and Descriptive, Urban and Regional Planning, Introduction to Architecture and Environmental Engineering
- May 2009 – August 2011: Building and IT Consultant  
Dream Haus Ventures, Kumasi – Ghana.  
**Duties included:** Building design and construction support services, Training of individuals and institutions various IT software such as Microsoft Office, Corel draw, AutoCAD and Archicad.
- October 2006 – August 2007: Management Assistant (National Service)  
Elegant Homes and General Construction Limited, Spintex road Accra.  
**Duties included:** Assisting the Managing Director on various construction sites, Architectural drawings in AutoCAD.
- Dec. 2005 – February 2006: Computer Aided Design Technician  
NTM Engineering Limited, Stanton by Dale, Ilkeston Derbyshire, UK.  
**Duties included:** General Assembly drawings of Tobacco making machines in AutoCAD for this engineering company and Supervision of workers in building the machines.

## **EDUCATIONAL QUALIFICATIONS**

- Sept. 2015 – Nov. 2019      PhD in Architecture (Building and Environmental Technology)  
KNUST, Kumasi – Ghana  
**Courses include:** Statistics, Advanced Research Methods, Philosophy in the Social Sciences, Urban Planning and Development and Building & Environmental Technology.
- March 2018 – July 2018      Exchange Programme (Barrier Free Environments and Urban Agglomeration)  
Frankfurt University of Applied Sciences, Germany (Erasmus + Scholarship)
- Sept. 2011- Dec. 2012:      Master of Science in Renewable Energy and Architecture at the University of Nottingham, UK. (Developing Solutions Scholarship).  
**Courses included:** Modeling Environmental Performance, Renewable Energy Technology 1 and 2, Renewable Research Project, Building design in different Climates, Ventilation in Architecture and Planning, Solar Architecture for different regions and Research Methodology.
- Oct. 2001 - June 2005:      Bachelor of Science Architecture (2.1) KNUST, Kumasi - Ghana  
**Courses included:** Architectural Design Studio, Construction Technology, Architectural Science, Building Services, Built Environmental Studies, Design Economics, Surveying, Environmental Psychology etc.

## **RESEARCH**

**Research Interest:** Sustainable Environments, Building Energy Modeling, Energy Savings and Efficiency in Buildings, Conservation and Vernacular Architecture, Photovoltaics, Wind Energy and Waste to energy.

### **Research Papers**

#### ***Journal papers***

1. GYIMAH, K. A., AMOS-ABANYIE, S. and KORANTENG, C. (2020) The predominant building envelope of existing tropical office spaces (Manuscript Under Review)
2. GYIMAH, K. A., AMOS-ABANYIE, S. and KORANTENG, C. (2019) A review on approaches and tools used in assessing indoor environmental quality, *Journal of Building Performance*, Volume 10, Issue 1. Page 68-78.
3. GYIMAH, K. A. and AMOS-ABANYIE, S. (2018) An empirical enquiry into windows used in tropical office spaces, *Journal of Building Materials and Structures*, Volume 5, Issue 2, Page 239-245
4. GYIMAH, K. A., TWUMASI- AMPOFO, K. and GYIMAH, A. B. K. (2017) Improving greenery in the Ghanaian built environment through policy and legislature, *Advanced Journal of Graduate Research(AJGR)*, Volume 2, Issue 1 (Pages 1 – 11), <https://doi.org/10.21467/ajgr.2.1.2017>
5. GYIMAH, K. A. and OPPONG, R. A. (2016) Building materials and their energy demand: A case in Ghana, *African Journal of Applied Research (AJAR)*, Vol.2, No.2 (Pages 35-46)
6. GYIMAH, K. A. and TETLOW, D. (2014) Achieving energy efficiency and aesthetics through windows in the tropics. *Journal of Energy and Natural Resource Management (JENRM)*, Vol. 1, No. 1 Page 29-35.
7. GYIMAH, K. A. and OWIREDU, C. (2014) Churches in Ghana and their stewardship role to the Environment. *International Journal of Research (IJR)*, Volume-1, Issue-10. Page 404-414.
8. GYIMAH, K. A. and ADDO-YOBO, F. (2014). Energy Performance Certificate of buildings as a tool for energy and environmental sustainability in Ghana, *International Journal of Research (IJR)*, Volume-1, Issue-6. Page 757-762.
9. GYIMAH, K. A. and GYIMAH, A. B. K. (2014). The use of building services to enhance the quality of life. *International Journal of Research (IJR)*, Volume-1, Issue-7. Page 702-711.
10. GYIMAH, K. A. (2014). Solar photovoltaic installation cost reduction through building integrated photovoltaic in Ghana. *Journal of Energy and Natural Resource Management (JENRM)*. Volume 1, Issue 2. Page 107-112.
11. GYIMAH K. A. (2014). Potential of the sun as a tool in achieving energy efficiency in temperate buildings, *International Journal of Research (IJR)*, Volume-1, Issue-5. Page 499-510

### **Conference Papers**

1. GYIMAH, K. A., AMOS-ABANYIE, S. and KORANTENG, C. (2019) Simulation based Indoor Environmental Quality analysis of existing windows used in tropical office spaces, 16TH IBPSA INTERNATIONAL CONFERENCE & EXHIBITION ON BUILDING SIMULATION, Rome – Italy
2. GYIMAH, K. A. and AMOS-ABANYIE, S. (2017) Rational for choice of window types in tropical office spaces, *CONFERENCE ON ENGINEERING, SCIENCE, TECHNOLOGY, AND ENTREPRENEURSHIP (ESTE 2017)*, Kumasi – Ghana.
3. GYIMAH, K. A., AMOS-ABANYIE, S. and KOOTIN-SANWU, V (2017) The importance of windows in attaining indoor environmental quality in the tropics, *6TH INTERNATIONAL CONFERENCE ON INFRASTRUCTURE DEVELOPMENT IN AFRICA (ICIDA)*, Kumasi – Ghana.
4. ABDUL-HAMID H.S., OPPONG, R. A. and GYIMAH K. A. (2017) Building safer cities: Assessing Green Infrastructure for storm water management at Kwame Nkrumah Interchange, Accra. *6TH INTERNATIONAL CONFERENCE ON INFRASTRUCTURE DEVELOPMENT IN AFRICA (ICIDA)*, Kumasi – Ghana.
5. OPPONG, R. A., BOTCHWAY, E. A. and GYIMAH K. A. (2017) 'Cyber-Architectonics': The use of Cyber Technology for Sustainable Architectural Education and Practice in a Mid-Income Economy-A Case For Ghana. *INTERNATIONAL CONFERENCE ON EDUCATION, DEVELOPMENT AND INNOVATION (ICETE2017)*, Ghana Technology University, Tesano –Accra.
6. GYIMAH, K. A. and SAFO-KANTANKA, O. Y. (2017) Delays on church based construction projects and their impact on project delivery: A case in Ghana. *INSTITUTE FOR INTERDISCIPLINARY RESEARCH AND CONSULTANCY SERVICES (IRaCS) Annual Interdisciplinary Conference*, Ghana.

### **Research Positions**

- July 2018 : Reviewer of Journal of Engineering and Manufacturing Technology (JEMT).
- March 2015 : Reviewer of Advances in Scientific and Technological Research (ASTR).
- August 2014 – Date : Reviewer of International Journal of Renewable Energy Research (IJRER).
- April 2014 : Guest Editor of International Journal of Research (IJR).

### **WORKSHOPS, TRAININGS AND PROFESSIONAL COURSES**

- July 2020: **Speaker**  
3<sup>rd</sup> Ghana Green Building Summit Virtual Edition.
- March 2018: **Participant**  
Intercultural training by the International Office of the Frankfurt University of Applied Sciences, Germany.
- January 2018: **Participant**  
Workshop on SMART Energy Management Systems by the Brew Hammond Energy Centre, KNUST and University of Dortmund, Germany at KNUST.
- April 2016: **Participant**  
Workshop for Lecturers and Researchers on “How to make yourself known in the world of research” organized by the Career Development Center, KNUST
- February 2015: **Participant**  
German Solar Training Week 2015 by PDP Ghana and GIZ at the Accra International Conference Center.  
**Session Attended:** Commissioning, operation and maintenance of PV systems.
- June 2014: **Participant**  
Workshop on Applied Satellite Technology for Integrated Resource Management (GEONETCAST) at the University of Energy and Natural Resources, Sunyani.
- April 2014: **Speaker**  
Conference on Renewable Energy (Ansole Regional Meeting in West Africa, 2014) at the Energy Centre, Kwame Nkrumah University of Science and Tech.  
**Topic:** Solar PV installation cost reduction through building integrated PV.

- March 2014: **Participant**  
Symposium on Sustainable and Renewable Energy by the Department of Mechanical Engineering and Energy Center, KNUST.  
**Topics included:** Sustainable and Renewable Energy for Africa's Development: Challenges and Options, Renewable Energy Law in Ghana: How Far? & Development of Solar Energy in Ghana: Update and Progress.
- December 2013: **Participant**  
Workshop on “*Productive use of Energy in Ghana*” by Africa – EU Energy Partnership, WIP Renewable Energies, KITE Ghana and Ministry of Energy and Petroleum Ghana at the Coconut Groove Hotel, Accra : Renewable Energy for Irrigation, Agro-processing & Rural Electrification.
- November 2013: **Participant**  
West African Clean Energy and Environment Conference 2013 by the Delegation of German Industry and Commerce in Ghana at the Accra International Conference Center.
- April 2012 – Dec. 2012: **Participant**  
The Graduate School and Professional Development, University of Nottingham, UK.  
**Courses included:** Supporting Students Doing Undergraduate Projects and Dissertations, Stimulating Students to be Academic Writers & Critical Thinkers, Small Group Teaching, Lecturing for learning.
- March 2012: **Participant**  
Ecobuild UK 2012 in Excel, London. Conference and exhibitions on Sustainable Building, Energy and Environmental Solutions.
- March 2011: **Participant**  
Creative Enterprise Programme (Part Scholarship)  
British Council Ghana, University of Ghana Business School and University of Glamorgan, UK.  
**Courses included:** Fundamentals of business planning, basic financial management, marketing, pricing your products, brand building, intellectual property, negotiation and contracts.

## SELECTED PROJECTS

- Energy audit, demand reduction and design of solar PV at Aninwa Hospital, Boadi – Kumasi. (2016)
- Energy audit, demand reduction, design and installation of both solar PV and evacuated tubes for a residence at Tema Community 12. (2015)
- Development of a solar power bank from an old tablet. (2015)
- Development of a solar powered air condition from waste. (2015)
- Installation and mounting of wind turbine using wooden electric pole at Yeshua Tech. (2015)
- Building of solar panels with Yeshua Tech students. (2014).
- Design of green campus for Yeshua Institute of Technology. (2014)
- Design of a 45 bed hostel near Garden City University, Kenyasi – Ashanti. (2010)
- Redesign and 3D drawings of Freeman Methodist Church, Mbruom – Kumasi. (2009)
- Design of houses for Angel Estates Limited. (2008)
- Site supervision services for the foundation of Fumesua Methodist Church.(2007)
- Renovation of building for Bethel Methodist Creche and Kindergarten, Ayigya – Kumasi. (2006)
- Design and Construction of a 15 bed hostel at Bomso, Kumasi.(2005)
- Drawing and evaluation of buildings for compensation on a ring road development in Ashanti region with the Department of urban roads and Department of Land Economy, KNUST.(2005)

## **ACHIEVEMENTS / POSITIONS HELD**

- December 2014: Member  
Institution of Engineering and Technology, Ghana.
- July 2014: Project Member  
US Green Building Council
- April 2014: Member  
Africa Network for Solar Energy (ANSOLE)
- July 2013: Planning Committee Member of Ghana Green Building Councils Ecobuild  
Ghana 2013.
- January 2013: Member  
World Society of Sustainable Energy Technologies.
- March 2010: Century International Quality Era Award (Gold Category)  
Business Initiative Directions (Dream Haus CAD Consults)
- January 2005: Student Member  
Royal Institute of British Architects, UK.