

# CV

## **ACHEAMPONG, AKWASI AFRIFA (PhD)**

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Position: 6° 43' 23" N, 1 33' 55"W (WGS 84)

### Qualification

Over 18 years experience in consulting, teaching and research in Geo-information data acquisition, analysis and management. More specifically in the field of Accurate and Precise Positioning, GNSS and GIS Applications. Started as a National Service Personal at the Department of Geomatic Engineering at Kwame Nkrumah University of Science and Technology awarded a scholarship to pursue postgraduate studies based on hard work and excellent academic grades. I can work on any survey project on any terrain and with any class of people within the stipulated time frame. Lecturing and being the Field Team Leader with University's Survey Unit, I have acquired good leadership, interpersonal and computing skills, especially in the use of AutoCAD, ArcView/AcrGIS, MatLab, Trimble Business Centre, RTKlib, gLAB and Spectrum Survey for survey planning, computations, design/drafting and plotting. I have enough technical experience in the use of theodolites, total stations, levels and GNSS/RTK instruments.

### Education

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**PhD in Geomatic Engineering (June 2016). KNUST, Kumasi - Ghana**

**Research Interest:** *GNSS Meteorology, GNSS Technology, Tropospheric Delays and Numerical Weather Predictions*

**PhD Student Fellowship (Summer 2013 & Summer 2014) - Niels Bohr Institute, University of Copenhagen. Denmark**

**GNSS Certificate (July 2013) - ESA International Summer School on GNSS, Davos-Platz, Switzerland**

**MPhil in Geomatic Engineering (February 2009). KNUST, Kumasi - Ghana**

**Research Interest:** *GNSS Technology, Satellite Positioning, Differential Correction Transmission, Survey Computations and Programming*

### Professional Affiliations:

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Ghana Institute of Engineering  
International GNSS Society.

Ghana Institution of Surveyors

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Employment record relevant to the assignment:

Period	Employing organization and your title/position. Contact infor for references	Country	Summary of activities performed relevant to the Assignment
2010	Snr. Lecturer, Geomatic Engineering Dept, KNUST	Ghana	<ul style="list-style-type: none"> <li>• Reponsible Assigned to conduct reserch and to undertake teaching in undergraduate and postgraduate classes, as well as administrative duties within a specialist subject area.</li> </ul> <p>Some core activities include but not limited to:</p> <ul style="list-style-type: none"> <li>• lecture planning, preparation and research</li> <li>• checking and assessing students' work</li> <li>• encouraging personal development via tutorial or mentorship</li> <li>• writing research proposals, papers and other publications</li> <li>• attending and speaking at conferences and seminars</li> </ul>
Jan 2020 – May 2020	Mapping Typhoid Fever Vaccines Clinical Trials, The School of Public Health, KNUST	Ghana	<p>The task was to map the township of Agogo, Ashanti Region of the built environment and create a geodatabase to capture numbers in the households as well as water sources, drains, wash facilities and refuse dumps.</p> <p>A drone survey was done</p>

			so we have the images of the towns which we digitized the buildings. Also we established controls using the static and the used the rtk to pick some of the details which we can't see on the images
June 2019	Electrification Planning In Ghana Using Open Source Web GIS - Ministry of Energy- Ghana Energy Development and Access Project (GEDAP)	Ghana	<ul style="list-style-type: none"> <li>• The assignment was to build a geodatabase with all requisite data and attribute for energy access queries</li> <li>• To publish online by linking needed visualization tools and algorithms for mapping and spatial analysis.</li> <li>• To provide spatial evidence through a web-based GIS platform that supports effective decision making in the expansion of electricity access and monitoring</li> </ul>
April 2019	<b>Cadastre and Base Map</b> for Rider Steel (Gh) Ltd. Odumase – Ashanti.	Ghana	<ul style="list-style-type: none"> <li>• The assignment was to define the boundary, mapped and document the perimeter at the Lands Registry.</li> <li>• Set-out the boundary extents on the site for compensation payment</li> <li>• Capture XYZ coordinates for engineering designs</li> </ul>

<p>Mar 2018 – Dec 2018</p>	<p><b>KNUST Boundary Re-Survey, The Vice Chancellor, KNUST.</b></p>	<p>Ghana</p>	<ul style="list-style-type: none"> <li>• Project to settle encroachment on KNUST Lands.</li> <li>• A drone survey was conducted to capture images for map overlay.</li> <li>• Encroached structures were identified and marked.</li> <li>• A consensus between the University and Land owners were reached and new boundary delineation were set-up and mapped.</li> </ul>
<p>May 2014 – 2015</p>	<p>Transportation GIS for Ministry of Roads and Highways Client: Min of Transport</p> <p>The objective of the Transport Sector Project for Ghana was to improve mobility of goods and passengers through reduction in travel time and vehicle operating cost, and to improve road safety standards.</p>	<p><b>Ghana</b></p>	<p>The assignment was to develop a GIS for Transport (GIS-T) that was to be hosted at the GIS Centre at the Ministry of Roads and Highways and managed by Research, Statistics and Information Management Directorate.</p> <p>The tasks involved were</p> <ul style="list-style-type: none"> <li>• Acquiring and Processing- geospatial data</li> <li>• Analysing and Interpreting- to deliver business critical information</li> <li>• Formatting and Managing- presenting data a in a form usable by clients for their operation</li> </ul>

<p>2013</p>	<p>Natural Resources Management Project (NRMP)  Client: Ministry of Lands and Forestry  Coordinator: Environmental Protection Agency</p>	<p><b>Ghana</b></p>	<p>There have been considerable changes in the landscape since 1990 as a result of the very dynamic nature of land use in Ghana, necessitating the updating of the land cover/land use data. This Project was proposed to update the existing, land cover/land use map, using up-to-date satellite imagery. It was required also to develop information on land use change trends using the two land cover/land use datasets.</p> <p>Description of Actual Services undertaken</p> <ul style="list-style-type: none"> <li>• Satellite image based Land use mapping</li> <li>• Field verification and validation</li> <li>• Stakeholders sensitization Campaign and collection of in-depth Information on Land Use for assessing State of the Environment</li> <li>• Development of National Land use and land cover Database.</li> </ul>

2010	<p><b>Geodetic Engineer/Topographic Surveyor for Bans Consult Ltd. Accra,</b></p>	Ghana	<ul style="list-style-type: none"> <li>• The project includes 14 km of Six-laned highway plus four interchanges and six footbridges. It also entails the 3D XYZ data, centerline profile and cross-sections. Details for compensation payment and Resettlement action plan</li> <li>• Responsible for establishing proper reference points and benchmarks for adequate data acquisition for engineering drawings and designs. Providing geometric details of existing structures in the proposed road corridor for site acquisition and compensation payments.</li> </ul>
2009	<p>Corridor Definition and Location Surveys for Proposed Lake Bosumtwi Ring Road Project</p> <p><i>Client:</i> Department of Urban Roads</p> <p><i>Position Held:</i> <b>Snr. Surveyor/Project Manager</b></p>	Ghana	<ul style="list-style-type: none"> <li>• The project includes 30 km of proposed road round Lake Bosumtwi connecting every settlement. It also entails the 3D XYZ data, centerline profile and cross-sections.</li> <li>• Responsible for establishing proper reference points and benchmarks for adequate data acquisition for</li> </ul>

			<p>engineering drawings and designs. Providing geometric details of existing structures in the proposed road corridor for site acquisition and compensation payments.</p> <ul style="list-style-type: none"> <li>• Coordination of all site activities with Project Manager and consultant</li> </ul>
2007 - 2008	<p>Design and Construction Supervision of the Takoradi and Tamale Airport Rehabilitation Project</p> <p>Client: Ghana Civil Aviation Authority</p> <p><i>Position held: Surveyor</i></p>	Ghana	<ul style="list-style-type: none"> <li>• Main Project Features; asphalt overlay of existing runway/aprons and drainage works</li> <li>• Responsible for establishing proper reference points and benchmarks for adequate implementation of the design proposal in the field, assist the contractors in proper setting out of works and temporal structures, assist in the measurement of quantities of work executed by providing levels before and after execution earthworks.</li> </ul>
2007	<p>Surveys of Telecom Infrastructure</p> <p><i>Client: Gabon Telecom</i></p>	<b>Libreville, Gabon</b>	<ul style="list-style-type: none"> <li>• Inventory of Existing Telecom Infrastructure including cabinets, manholes and poles for planning and upgrade.</li> <li>• Responsible for establishing proper reference points and benchmarks for detail surveying and data</li> </ul>

			capture to serve as a Decision Support Tool system expansion and upgrade.
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**Membership in Professional Associations and Publications:**

Member of Ghana Institution of Engineers, International Geospatial Society, International GNSS Society

**Language Skills (indicate only languages in which you can work):**

	Reading	Writing	Speaking
English	Excellent	Excellent	Excellent

**Computer Skills**

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Broad knowledge in computers and software applications, with proficient skills in AutoCAD and Ezysurf engineering packages as well as GIS and GPS software such as ESRI's ArcView and ARC-INFO, ILWIS, Trimble's Business Centre, Sokkia's Spectrum Survey, etc. Familiar with Microsoft Office Suite, C++, MatLab, LaTeX document processing and Linux.

**Personal Data**

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**Place and Date of Birth:** Kumasi, July 14, 1979      **Nationality:** Ghanaian  
**Address:** Department of Geomatic Engineering, KNUST, Kumasi, GHANA  
**Ghana Post GPS Tag:** AK-448-4929  
**Interest:** Football, Athletics and Current Affairs