

# Emmanuel Awuni Kolog, *PhD, MSc, MBA, C.Edu*

Curriculum Vitae

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## A. OVERVIEW

I am currently a *Lecturer* of Computer and Information Systems at the Department of Operations and Management Information Systems of the University of Ghana. I hold PhD in Computer science with the orientation in Human language technologies and MSc in Software Engineering both from the University of Eastern Finland. I received a scholarship for both the PhD and MSc degree studies from the University's foundation as one of the best applicants. Additionally, I hold an MBA degree in International Business Management from the Business School of Lapland University of Applied Sciences in Finland. I have also obtained a Postgraduate Certificate in Education (PGCE) from Ghana. My Bachelor's degree focused on Information Technology where I graduated with a *First class* honours. Before joining the OMIS Department, I worked as a Post-Doctoral Research fellow at the University of Eastern Finland where I conducted research and supervised theses of graduate level students. My research interest is multidisciplinary which spans the fields of Text Mining, Affect Detection, Learner Analytics, Machine Learning Applications and Health informatics. I am the recipient of Queen Elizabeth II scholarship to McGill University in Canada. I review for several journals and attended conferences around the world. In 2018, I won the best research paper award in a conference held in Hong Kong and, in 2019, my paper was nominated with two others for the best paper award in knowledge management and information systems conference held in Vienna. Although I missed out the award, I was honored for my research work in ontology and machine learning for retrieval and archival of traditional herbal medicine. I am an Editorial Board Member for *Koli calling*, an annual Computer Science Education conference in Finland. He has published in high quality journals. I am also an Associate Editor in international journal of Business and Data Analytics.

I have Fourteen (15) years of teaching experience spanning the secondary school education to a higher education level. These years of teaching experiences augmented my desire and passion to be in academia. My teaching philosophy is centred on a problem-based learning approach, where students are made to take control of their own studies by solving real world problems with minimal guide (self-regulated learning). Usually, I prefer to engage students in classroom discussion in order to lead them to identify and solve real world problems. In terms of the teaching mode, I prefer the blended learning mode, such as the face-to-face and the use of digital learning platforms. Additionally, I engage students to identify and solve problems through collaboration. At the University of Ghana, I teach both undergraduate and Post-graduate level courses which include Management Information Systems, Computer Applications in Management, Software Engineering with Python and Introduction to computing.

## B. ACADEMIC QUALIFICATIONS

Duration	Qualification	Awarding Institution
2014-2017	<b>PhD. Computer Science</b> <i>Thesis Title:</i> Contextualising the Application of Human Language Technologies for Counselling <i>CGPA:</i> 5/5 (Excellent) <i>Thesis grade:</i> Approved <i>Supervisors:</i> Dr. Calkin Suero Montero, Prof. Markku Tukiainen, Prof. Erkki Sutinen and Prof. Marjatta Vanhalakka-Ruoho	School of Computing, University of Eastern Finland, Finland
2012-2014	<b>MSc. Computer Science (Software Engineering)</b> <i>Dissertation Title:</i> E-Counselling Implementation: A Contextualised Approach <i>CGPA:</i> 4/5 (Very good) <i>Thesis grade:</i> 5/5 (Excellent) <i>Supervisor:</i> Prof. Erkki Sutinen and Prof. Marjatta Vanhalakka-Ruoho	School of Computing, University of Eastern Finland, Finland
2016-2018	<b>MBA (International Business Management)</b> <i>Dissertation Title:</i> Internationalising a Multi-disciplinary PhD Program offered by the University of Eastern Finland: Strategies and Approaches. <i>CGPA:</i> 4/5 (Very good) <i>Thesis grade:</i> 4/5 (Very good) <i>Supervisor:</i> Mr. Anthony Okuogume	Lapland University of Applied Sciences Business school, Finland
2008-2011	<b>BSc. Information Technology</b> <i>Dissertation Title:</i> School Management Information system for Senior High Schools in Ghana: A Case of Osei Kyeretwie Senior High School. <i>CGPA:</i> 3.75/4 (First Class) <i>Project grade:</i> 5/5 (Excellent) <i>Supervisor:</i> Mr. Eric Kofi Asiedu	Awarded by University of Ghana, Accra Ghana
2007-2008	<b>Certificate in Education (Pedagogy)</b> <i>Dissertation Title:</i> A Guide for teaching Junior High School General Science <i>CGPA:</i> 3.14/4 (Credit) <i>Project grade:</i> A (Excellent) <i>Supervisor:</i> Mr. Tsorgali Michael	University of Education, Winneba – Kumasi, Ghana

### Other Relevant Certifications

1. **In February 2019**, I completed a training course on research ethics by the Canadian Ethical Conduct for Research Involving Humans, the training program is dubbed TCPS 2: CORE. The training program augmented my knowledge in general ethical dimensions and principles regarding human research.
2. **In June 2016**, I attended a two-week summer school course in internet crime. This training was organised by the Law school of the University of Eastern Finland. The course focused on

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cybercrimes in Europe and the globe at large. Given that the training was organised by the Law school, legal perspectives regarding Cybercrimes, especially in social media, were addressed.

3. **In March 2013**, I completed an innovation management program called *Innovation month* at Karelia University of Applied Sciences in Finland. The three-month training program built my capacity on how to pitch ideas and develop project proposals for funding.
4. **In December 2008**, I completed a one-year course in *Certificate in Education* from the University of Education in Ghana. Notable courses that I offered during the period included Methods of teaching and learning, Educational Technology, Educational counselling, Psychology of Education, Philosophy of Education and Off Campus teaching practices.

## C. RESEARCH AND WORK EXPERIENCE

1. **March, 2020, MoAPI Project**, I applied and won **abseed** grant from *Building a New Generation of Academics in Africa (BANGA -Africa)* to conduct research in modelling the affect of learner using learning management system. In addition to the research, the award is meant for me to take a mobility visit to University of Turku in Finland. I am the principal investigator with a partner from the university of Turku in Finland.
2. **June 2018 to date, Queen Elizabeth II Diamond Early career Researcher, McGill University, Canada**: I won the 2019 Queen Elizabeth scholar program to McGill University in Canada. The award is worth 30,000 Canadian dollars. The grant is meant to cater for my subsistence in Canada and as well empower rural farmers in Agriculture and nutrition in Upper Menya Krobo district in Ghana. Of the entire project period, three months will be spent in McGill University in Canada. In the project, I will be responsible in organising training workshops regarding the relevance of using ICT to acquire knowledge on best practices of agriculture and nutrition. The study also seeks to propose an ICT solution to help farmers to acquire knowledge, especially on the weather. The goal is to help augment climate resilience.
3. **October 2018 – Date, Lecturer and Researcher, University of Ghana**: I am currently working as a lecturer and researcher with the Department of Operations and Management Information Systems of the University of Ghana Business School. At the department, I teach both the Undergraduate and Post-graduate level courses. Courses that I teach include management information systems, software engineering, introduction to computing, web technology, and computer applications in management. I have been assigned to supervise the theses of both graduate and undergraduate degree students. Alongside the teaching, I also do research in human language technologies (learner analytics), information systems and ICT for developments. I have been tasked to help develop a proposal for business analytics programme that is slated to start in the next academic year (2020/21). Once the program is mounted, I will be taken courses in machine learning, databases and principles of data analytics.
4. **April 2016 - date, Researcher, automating church related tweets using Machine learning**: This is a joint project between University of Turku, Centre for church growth-University of Durham and me (formally University of Eastern Finland and now University of Ghana). We are currently undertaken preliminary research in Digital theology while hoping to secure funding for the project in the future. The project is led by *Prof. Erkki Sutinen*, a distinguished Professor and the Head of department of Future Technologies at the University of Turku in Finland. The aim of the project is to employ machine learning techniques in analysing church-related tweets to help churches make informed decisions regarding the growth of their churches. In this project,

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I work as a researcher. I use twitter API to crawl data from twitter page, particularly in the London area and perform analytics on the data. I use Python scripts to clean the data and use WEKA machine learning algorithms to analyse the data. Notable subjects of interests are sentiments and emotions analysis.

5. **March 2015 – February 2017, *Early stage researcher, Contextualising the Application of Human Language Technology for Counselling*:** I won a two-year research grant of € 80,000 to conduct research during my PhD studies. The grant was awarded by the University of Kuopio foundation in Finland. The grant was meant to explore the understanding of the emotional impact of learners towards their academic development and to develop computational intervention for aiding students Psycho-social development. The outcome resulted, as part of the project, in developing a tool for tracking sentiments and emotions of learners in text. This formed part of my PhD studies at the University of Eastern Finland in Finland. Though, some parts of the project were given out to some masters' students to execute, I was the lead researcher in the project. In this project, I used Python programming language for the preliminary data cleaning, feature selection, creation of the data models and the eventual prediction of the affect. A corpus was manually developed and leveraged for the affect detection. This project was based on text classification techniques, hence several machine learning classifiers, such as Support Vector Machine (SVM) and Naïve-Bayes (NB) classifier, were employed. In the end, eight papers were published in forums recognized by the Finnish universities. Of the 8 papers, 5 of them were used for PhD degree.
6. **Aug. 2011 – Sept. 2012: *Web developer, GhRadio1*:** GhRadio1 is one of the leading online radio stations in Ghana. I worked as the lead web developer. Notable projects I executed during my tenure include the streaming web link and the website for the radio station. I used Drupal content management system to develop the core module for the website. The other modules, which were plugged in, were programmed using HTML, PHP, CSS and JavaScript. The database was designed and developed using MySQL. Alongside these responsibilities, I organised ICT orientation and training for the management and other junior workers.
7. **1<sup>st</sup>-28<sup>th</sup> February 2013: *Researcher O-Mopsi project*:** Part of this project was given out to me by the Machine learning research group of the University of Eastern Finland to execute. In the project, I was tasked to implement an algorithm for travelling salesman problem (TSP) using brute force. The idea was to compare its performance, based of the time complexity, with the greedy algorithms. This project was part of my MSc studies. I used Java, as the requirement, to implement the algorithm. The algorithm was later used by the group with grid coordinates for a location-based project in the O-Mopsi.
8. **September 2010-September 2012: *Systems administrator, Osei Kyeretwie senior high school*:** I worked in this senior high school as the school System's administrator and an instructor. I was the director of the school ICT responsible for all ICT-related matters except for the allocation of ICT subject teaching. I mooted the idea of setting-up the school local network, which was then non-existent. I developed and acted as the web master responsible for updating and posting content of the school on the website. I used HTML, PHP, CSS and JavaScript for the development of the school website. I organized intermittent ICT training and workshops for the school staff. Alongside these activities, I also taught ICT and mathematics during all the years I spent in the school.
9. **2005 -2010, *Systems administrator, Presbyterian senior high school*:** My National service began in this school. I worked in this school for five years, during which I taught courses in ICT

and mathematics. I acted as the school systems administrator for a period of three years before I left the school on transfer. I was mainly responsible for all the ICT related activities in the school. I organised workshops and training for the teaching and non-teaching staff of the school.

#### D. GRANTS AWARDED

- March 2020 ***Building a New Generation of Academics in Africa (BANGA) Grant:*** I applied and won **7,600USD** seed grant for conducting research in modelling the affect of learner using learning management system. In addition to the research, the award is meant for me to take a mobility visit to University of Turku in Finland. I am the principal investigator with a partner from the university of Turku in Finland.
- Sept - 2018 ***Recipient of Queen Elizabeth II Scholar, McGill University, Canada:*** I applied and won the 2018 Queen Elizabeth scholar to McGill University in Canada. The award is worth **30,000 CAD**. The grant is meant to cover my subsistence in Canada and to empower rural farmers in Agriculture and nutrition in Upper Menya Krobo district in Ghana. Of the grant period in the entire project, three months will be spent in McGill University in Canada. In the project, I will be responsible in organising training workshops regarding the relevance of using ICT to acquire knowledge on best practices of agriculture and nutrition. The study also seeks to come out with ICT solution that will help farmers to acquire knowledge, especially about the weather. The goal is to help augment climate resilience.
- Sept - 2018 ***Post-Doctoral Mobility Grant:*** University of Kuopio foundation offered a grant of **€5,500**, through a competitive open call, to take research mobility visit to Prof. Isabella Venter's computer science laboratory at the University of the Western Cape. This grant covers my travelling expenses, accommodation and subsistence in South Africa. The mobility stay was to work in the computer science laboratory thereby strengthening the partnership between the two universities.
- Jan. 2018 ***Travelling Grant:*** I won a grant of **€1,400** to attend academic conference in Hong Kong. The grant was awarded by FinCEAL in Finland. The call for the grant was competitive for all Post-doc, PhD and masters' degree students. The grant covered the travelling and per diem for the one-week period in Hong Kong.
- March. 2017 ***PhD Thesis Grant:*** I was awarded a grant of **€6,000** for the period of three months to wrap up my PhD dissertation. The grant was an open call for PhD candidates who were slated to complete their studies in 2017. The grant was awarded by the Faculty of Science and Forestry of the University of Eastern Finland. The grant covered my subsistence in Finland.
- Sept. 2016 ***Research Mobility Grant:*** I won this grant through a competitive call from the University of Eastern Finland. An amount of **€1,950** was awarded to take up a research mobility trip to Ghana. With this trip, I smoothened the process of establishing a research partnership with the University of Education in Ghana. Additionally, the trip offered me the opportunity to collect data from Ghana, which was relevant for my PhD studies. During my stay in Ghana, I presented in a seminar at the university of Education and University of Ghana regarding my research work.
- 2015 -2017 ***Post-Graduate Study Grant (PhD):*** I won a two-year research grant of **€80,000** to conduct research during my PhD studies at the University of Eastern Finland. The grant was funded by the University of Kuopio foundation in Finland. The funding covered my daily expenses, subsistence, and conference registration fee. The grant



was meant to explore the understanding of the emotional impact of learners towards their academic development and to develop computational intervention for aiding students. The outcome resulted, as part of the project, in developing tools for tracking sentiments and emotions of learners in text. During the grant period, I attended two conferences, in Ethiopia and United states of America, to present my research paper.

- Feb. 2014 ***Master's Degree Thesis Grant:*** I was awarded with a grant of **€1,800** to complete my master's thesis at the University of Eastern Finland. The grant covered a period of three months. The grant was meant to cover my daily allowances while working on my master's degree thesis.
- 2012 – 2013 ***Master's Degree Scholarship as Best Applicant:*** This grant was awarded before I started my master's degree studies with the University of Eastern Finland. The grant of **€3,600** covered a period of one year, this grant was awarded on the grounds that I emerged as one of the best applicants to the programme. The grant covered my subsistence and accommodation expenses in Finland. The grant helped me to live and study in Finland without having to worry about securing job for my livelihood.

#### D. AWARDS AND ACHIEVEMENTS

- Sept. - 2019 ***Nominated for Best Paper Award:*** At 2019 11<sup>th</sup> international conference on Knowledge management and information system held in Vienna-Austria, our paper “*Knowledge-Based Service for African Traditional Herbal Medicine: A Hybrid Approach*” was nominated among two others for best paper award but missed out the price narrowly.
- Sept - 2018 ***Recipient of Queen Elizabeth II Scholar, McGill University, Canada:*** I applied and won the 2018 Queen Elizabeth scholar to McGill University in Canada. The award is worth 30,000 Canadian dollars. The grant is meant to cover my subsistence in Canada and to empower rural farmers in Agriculture and nutrition in Upper Menya Krobo district in Ghana. Of the grant period in the entire project, three months will be spent in McGill University in Canada. In the project, I will be responsible in organising training workshops regarding the relevance of using ICT to acquire knowledge on best practices of agriculture and nutrition. The study also seeks to come out with ICT solution that will help farmers to acquire knowledge, especially about the weather. The goal is to help augment climate resilience.
- Jan. 2018 ***Excellent Paper Award:*** I won the *Excellent paper* award from a conference on technology in education held in Hong Kong in January 2018. The title of the paper was “*Detecting Emotions in Learners' Generated Content: An Evaluation of EmoTect System.*” In this paper, I evaluated an automated system for sentiment and emotion detection from text in educational counselling.
- May, 2014 ***Nominated for Master's Thesis Award (MSc):*** I had an excellent grade (5/5) in my master's degree thesis. In that batch of students, I was the only student who had an excellent grade for the thesis. Later, the school recommended my thesis for UniPiD National Master's thesis competition in Finland. Unfortunately, I missed out the final three after competing for the topmost prize.
- Dec. 2011 ***Best Graduating Student:*** I was the best graduating student during my bachelor's degree. With a degree in Information Technology, I obtained a CGPA of 3.75 of 4. The degree included an excellent (A) grade in my bachelor's degree thesis. The



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grading helped me to secure a scholarship to study for my master's degree studies in Finland.

## D. TECHNICAL SKILLS

- Programming: *Python, JavaScript, Java, VB.net, PHP*
- Data Analytics Software tools: *Tableau, STATISTICA, Rapid Miner, WEKA,*
- Markup language and styling: HTML5, xHTML, XML, CSS
- Computer literacy: *Office Suite*
- Database: MySQL, MongoDB, SQL, XPath
- Graphics: *Corel draw and Adobe Illustrator*
- Discipline: *Machine learning, Natural language Processing*

## E. DETAILS OF RESEARCH IMPACT

### - Scholarly Contributions

1. **2014 – to date**, I have published **13** journal articles, **6** book chapters and **8** peer reviewed conference papers.
2. From the google scholar, my publications have been cited for 148 times with h-index of 7 and 4 i10-index.
3. **Conference Presentations:** I have attended and presented papers in the following conferences.
  - 15<sup>th</sup> IEEE AFRICON 2015 in Ethiopia (Computing track)
  - 16<sup>th</sup> International Conference on Advanced Learning Technologies 2016 held in Taxes, USA (Affect and motivation track)
  - International Conference on Technology in Education 2018 held in Hong Kong (Computing application track)
  - International Conference on Information Technology & Systems (ICITS 2018) in Ecuador. (Affect detection track)
  - 11<sup>th</sup> International conference on knowledge management and information system '19 (KMIS 2019). Chaired a session and paper nominated for best paper award.

### - Editorial and Reviewer Services

#### Conference

1. **Programme committee member:** International conference for Computers in Education. Sub-Conference on Advanced Learning Technologies (ALT), Learning Analytics and Digital Infrastructure).
2. **Program committee member:** Koli calling conference in Finland. An annual conference for computing education. <https://www.kolicalling.fi/pc.php>
3. **Program committee member:** International Conference on Artificial Intelligence in Education: <https://aied2020.nees.com.br/#/organizing/members>
4. **Tack Chair:** 2019 International Conference of knowledge Management and Information System. <http://www.kmis.ic3k.org/>
5. **Lead Applicant in EU project:** Intra-Africa mobility project scheme with five other partners: University of Pretoria, University of Namibia, Namibia, Mzumbe University, Tanzania, University of Turku, Finland and Botswana International University of Science and Technology, Botswana.

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## Journals

These are selected journals and conferences that I review for:

1. *Associate Editor*: International Journal of Business and Data Analytics, Inderscience
2. *Reviewer*: International Journal of Medical Engineering and Informatics
3. *Reviewer*: Advances in Science, Technology and Engineering Systems Journal
4. *Reviewer*: International Journal of Learning Technologies (IJLT)
5. *Reviewer*: Journal of Universal Computer Science
6. *Reviewer*: Informatics in Medicine, Elsevier
7. *Reviewer*: SELI project, Finland
8. *Reviewer*, Algorithms
9. *Reviewer*, Koli calling computing conference
10. *Reviewer*, IGI Global
11. *Reviewer*, Technology Analysis & Strategic Management
12. *Reviewer*, Information Technologies & International Development Journal

## -Other Scholarly activities/services

- *Committee chair*: Data Crime System Project, Centre for multidisciplinary and Innovation
- *Coordinator, MSc. Business Analytics program, October 2018*: I am currently coordinating the development of a proposal for a Master of science degree in Business Analytics programme for the University of Ghana Business.
- *Guest lecture, 4<sup>th</sup> June 2019*: I gave a guest lecture at the university of Turku in Finland on the topic “ICT-Related business and research opportunities in Ghana”
- *Sub-committee chair, November 2019*: Event and exhibition committee for annual Management week celebration, University of Ghana Business School
- *Legon Hall fellow, since 1<sup>st</sup> August 2019*: University of Ghana.
- *Guest lecture, 7<sup>th</sup> January 2020*: I gave a guest lecture at the university of Ghana bootcamp on the topic “Making Sense of IoT data”
- *Retreat, 13<sup>th</sup> January 2020*, a member of a committee mandated by the dean of the business school to take a retreat to Hill view hotel to develop a proposal for new master’s degree programs in ICT4D, Operations and Logistics and a revised MBA-MIS program.

## - Membership of Professional Body

- *Member, since August 2019*, Institute for Systems and Technologies for Information, Control and Communication (INSTICC)
- *Board of Trustee Member, since May 2019*, Center for Multidisciplinary Research and Innovation, Finland
- *Member, since March 2015* – Finnish Union of University Teachers and Researchers

## - Theses Supervision

Number of Thesis supervision at both University of Eastern Finland and University of Ghana

	PhD	MBA (MIS)	MPhil/MSc	BSc/BA	TOTAL
Ongoing	6	8	4	-	18
Submitted for review	1	-	-	-	1
Completed	-	2	2	-	4
<b>TOTAL</b>	<b>7</b>	<b>9</b>	<b>6</b>	<b>-</b>	<b>22</b>

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## G. DETAILS OF TEACHING EXPERIENCE

My teaching experience dates back in 2005. In that year, I began as a national service personnel in a Presbyterian senior high school and later transferred to Osei Kyeretwie senior high school in Ghana. I taught for seven (7) years in those schools. During those periods, I taught Mathematics and ICT. After, the seven years of high school teaching, I enrolled to the University of Eastern Finland for a master's degree program and completed in 2014. In my PhD studies, I taught courses at the graduate level as part of my PhD study requirements in Finland. In the subsections below, I present details activities of my teachings.

### - *Teaching Qualifications*

I hold a Certificate in Education (Pedagogy) from the University of Education, Ghana. I obtained this Certificate in 2008 which was a one-year program. I have had several *ad hoc* teaching trainings, though without certification, throughout my teaching career.

### - *Pedagogical Philosophy*

My teaching philosophy is centred on a Problem-based learning approach, where students are made to take control of their own learning (self-regulated learning) by solving real world problems with minimal guide. Usually, I prefer to engage students in classroom discussion in order to lead them to identify and solve societal problems or challenges. Additionally, I prefer the blended learning mode, such as the face-to-face and digital learning platforms, for teaching. I challenge students to identify and solve problems through collaboration. I have a good sense of humour which helps me to motivate students to open-up in classroom discussion. While I try to use my sense of humour to motivate students to learn, I set boundaries to avoid students from capitalising my humour as a sign of my weakness.

### - *Teaching Experience*

#### 1. *August 2018 – to date, Lecturer at University of Ghana*

I am currently teaching both undergraduate and graduate courses in Information systems.

- UGBS 609: Management Information Systems,
- UGBS 102: Introduction to Computing,
- OMIS 606: Software engineering and Machine Learning
- UGBS 303: Computer Application in Management
- OMIS 706: Trends in Information system (*PhD course*)
- OMIS 616: Information System Security

#### 2. *August 2018 – Sept. 2018, Part-time Lecturer at University of Ghana*

I was recruited by the university to teach both undergraduate and graduate course in computer applications and management information systems. The period was a short spell. I developed and planned my own content for the teaching.

- UGBS 609: Management Information Systems,
- UGBS 303: Computer Application in Management

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3. **2015 - 2017, Teaching at University of Eastern Finland, Finland**

As part of my PhD studies, I was tasked to teach courses under Professor Erkki Sutinen. For this reason, I taught courses in Research Methods in Computer science, Software Engineering, and Digital humanities and theology. Alongside teaching these courses, I also supervised masters' theses. One student completed while one other student is still working on his thesis.

4. **2010-2012, ICT Trainer at GhRadio1, Ghana**

While working with GhRadio1 as a web developer, I also provided training for the staff on ICT related issues and practical use of some ICT tools relevant for the radio work.

5. **2010-2012, Teaching at Osei Kyeretwie senior high school, Ghana**

This is the second senior high school that I taught after being transferred from my previous school. The essence of the transfer was meant to help strengthened the ICT capacity of the school. In this school, I taught mathematics and ICT. I also provided training workshops for the teaching staff on the use of ICT in teaching and learning.

6. **2005-2010, Teaching at Presbyterian senior high school, Ghana**

I taught Mathematics and ICT in this school. This is the first school I began my teaching career while serving the nation after school. I also served as a house master, responsible for advising and coordinating a selection of students in the school and with their parents.

## **F. RESEARCH PUBLICATIONS**

The lists of my publications have been categorized according to journal, book chapter and conference publications. I am currently working on papers that focuses on affect detection in text and the implication of outsourcing of IT services and products in Ghana.

### **- Journal Articles**

1. Olaleye, S.A, Ukpabi, D.C., Olawumi, O., Atsa'am, D.D., Agjei, R.O., Oyelere, S.S., Sanusi, I.S., Agbo, F.J., Balogun, O.S. Gbadegeshin, S.A., Adegbite, A. & **Kolog, E.A (2020)**. Association Rules Mining for Job Seekers' Profiles based on Personality Traits and Facebook Usage. *International Journal of Business Information System*.
2. Cooper, A., **Kolog, E.A.,** & Sutinen, E. (2020). Automating Analysis of Church-related Tweets Using Machine Learning. *Journal of Field Work*. 14(1). 10.1558/firn.40610
3. Kingsley Ofosu-Ampong, Boateng, R., Aning-Dorson, T. & **Kolog, E.A.** (2020). Are we Ready for Gamification? An Exploratory Analysis in a Developing Country. *Education and information Technologies*. <https://doi.org/10.1007/s10639-019-10057-7> (earlycite)
4. Anim-Yeboah, S, Boateng, R., & **Kolog, E.A.** (2020). Digital Transformation Process and the Capability and Capacity Implications for Small and Medium Enterprises. *International Journal of E-Entrepreneurship and Innovation*. IGI Global. 10(2), 1-19
5. Agbo, F.J., Olawumi, O., Oyelere, S.S., **Kolog, E.A,** Agjei, R.O., Ukpabi, D.C., Gbadegeshin, S.A., Yunusa, A.A., Awoniyi, L., Erinle, K.O., Mogaji, E., Silas, A.D., Nwachukwu, C.E, & Olawumi, A. (2020). Social Media Usage for Computing Education: The Effect of Tie Strength and Group Communication on Perceived Learning Outcome. *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*. 16(1),. 5-26 .

6. **Kolog, E.A.**, Devine, S. N. O., Ansong-Gyimah K. & Agjei, R. (2019). Fine-Grained Affect Detection in Learners' Generated Content Using Machine Learning. *Education and information Technologies*. 6(24), 3767-3783.
7. Agjei, R., **Kolog, E.A.**, Dei, D., & Tengay, J. Y (2018). Emotional Impact of Suicide on Active Witnesses: Predicting with Machine Learning. *Advances Science Technology Engineering Systems Journal*. Special Issue 3(5), 501-509.
8. **Kolog, E.A.**, Montero, C. S., & Tukiainen, M. (2018). Development and Evaluation of an Automated e-Counselling System for Emotion and Sentiment Analysis. *Electronic Journal of Information Systems Evaluation*, 21(1), 1-19.
9. **Kolog, E.A.**, & Montero, S.C. (2018). Towards Automated e-Counselling System based on Counsellors' Emotion Perception. *Education and information Technologies*, 23(2), 911-933. Springer.
10. **Kolog, E.A.**, Nygren E., & Sutinen, E. (2016). Hackathon for Learning Digital Theology in Computer Science. *International Journal of Modern Education and Computer Science*. 8(6), 1-12.
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