Box 214 Sunyani, Bono Region, Ghana +233208736247

ntious1@gmail.com/isaac.nti@uenr.edu.gh

ORCID: <u>0000-0001-9257-4295</u>

Web of Science Researcher ID: <u>E-2004-2017</u>

Scopus Author ID: <u>57210637914</u>

SciProfiles: 698726

Linkedin

ISAAC KOFI NTI

TEACHING PHILOSOPHY STATEMENT & PROFESSIONAL PROFILE



I feel that each child is unique and brings something special to their education. I will encourage my pupils to express themselves and accept themselves as they are, as well as embrace others' diversity. As a teacher, it will be my responsibility to assist each student in realizing their individual potential and learning methods. I will provide a program that accommodates each student's unique learning style while also making the subject relevant to their lives. I will combine activities such as hands-on learning, cooperative learning, blended learning, projects, themes, and individual work that will stimulate and inspire students' learning.

- ✔ PhD in Computer Science, Master's Degree in Information Technology, Bachelor's Degree in Computer Science and Higher National Diploma in Electrical/Electronic Engineering.
- ✓ Experienced in the use of the Internet, computer programming and educational software.
- ✓ Dedicated to enthusiastic and dynamic teaching to create and nurture a lifelong love of knowledge in people.

SKILLS & ABILITIES

- ✓ Good Programming Skill with Visual Basic.Net, C#, HTML, C++, Python and Java.
- ✓ Expert in Microsoft Office Suite and AutoCAD.
- ✓ Data Science and Analytics with R and Python
- ✓ Machine Learning Algorithms Application
- ✔ Data Mining and Cluster Analysis
- ✓ GPU programming
- ✔ Deep Learning Algorithms

- ✓ 15 years of teaching and imparting knowledge
- ✓ Working knowledge of the Internet.
- ✓ System installations and debugging; terminal/printer operations.
- ✓ Web designing (With CMS).
- ✓ An exceptionally energetic and enthusiastic young man
- ✓ Ability to work under little or no supervision
- ✓ Deeply involved in learning about the educational state-of-the-art, investigating research and designing instructional materials.
- ✓ Ability to work under pressure and in all weather conditions
- ✓ Ability to transform a manual working environment into a computerised environment

WORKING

EXPERIENCE

[LECTURER, UNIVERSITY OF ENERGY AND NATURAL RESOURCES]

May 2021 - present

Subjects handled

- ✓ Artificial intelligence
- Computers and Society
- ✓ Computer Ethics
- Research Methods
- ✓ Data Analytics with Python and R

LECTURER, SUNYANI TECHNICAL UNIVERSITY (STU)

September 2016 – May 2021 [Full-Time]

Subjects handled

- ✔ Artificial intelligence
- ✓ Introduction to Computer Technology
- ✓ C++ Programming
- ✓ Programming with C#
- ✓ Programming with Visual Basic.Net
- ✓ Introduction to Java Programming
- ✓ Data Structures & Algorithms
- ✔ Database System
- ✓ Technical Report Writing

LECTURER, UNIVERSITY OF ENERGY AND NATURAL RESOURCES (UENR)

August 2019 – December 2019 [Part-Time]

Subjects handled

- ✓ Web Engineering
- ✓ Computer Ethics
- ✓ Information Technology and the Society

SNR. INSTRUCTOR, SUNYANI POLYTECHNIC (SPOLY)

August 2011 – September 2016 [Full-Time]

Subjects handled

- ✓ Introduction to Computer Technology
- ✓ C++ Programming
- ✓ Fundamentals of Digital Electronics
- ✓ Electrical Service Design with AutoCAD Electricals
- ✓ Management Information System
- ✔ Electrical Engineering Principles
- ✓ Electrical Installation Technology
- ✓ Electrical Machines I & II

TECHNICIAN, SUNYANI POLYTECHNIC (SPOLY)

September 2009 -2011 [Full-Time]

Duties

- ✓ Setting of Lab
- ✓ Equipping students with hands-on training in electrical motors, control system and electronic circuit designs.

SOFTWARE ANALYST, FENG TECHNOLOGY, SUNYANI

October 2011 – 2015 [**Part-Time**]

Duties

- Testing and analysing develop software
- ✓ Gathering system requirements

COMMUNITY AND REVIEW SERVICES

✓ Reviewer: Artificial Intelligence Review [February 2022 to Date]

- ✓ Reviewer: Journal of ICT Research and Applications [January 2022 to Date]
- ✓ Reviewer: Education and Information Technologies (EAIT) [December 2021 to Date]
- ✓ Reviewer: Journal of Computers in Education (JLCE) [November 2021 to Date]
- ✓ Reviewer: Journal of Energy and Natural Resource Management [November 2021 Date]
- ✓ Education and Information Technologies (Springer) [October 2021 Date]
- ✓ Reviewer: Soft Computing (Springer) [April 2021-Date]
- ✓ Reviewer: Connection Science (Taylor and Francis) [September 2021 Date]
- ✓ Reviewer: Journal of Intelligent Manufacturing (JIMS) (Springer) [March 2021 Date]
- ✓ Reviewer: Sustainable Computing: Informatics and Systems (Elsevier) [March 2021 Date]
- ✓ Bulletin of Electrical Engineering and Informatics [February 2021 Date]
- ✔ Reviewer, African Development Review (Wiley) [Jan. 2021 Date]
- ✓ Reviewer: Advances in Research [Jan. 2021 Date]
- ✓ Reviewer: Financial Innovation (Springer) [Oct 2020 Date]
- ✓ Reviewer, Visual Computing for Industry, Biomedicine, and Art (Springer) [Dec 2020 Date]
- ✓ Reviewer: American Journal of Engineering and Applied Sciences (Science publications) [July 2020 – Date]
- ✓ Reviewer: Current Research in Bioinformatics (Science publications) [July 2020 Date]
- ✓ Reviewer: Indian Journal of Science and Technology [July 2020 Date]
- ✓ Examination inspector Ghana education service (GES) technical examinations unit. [2019 to Date]
- ✓ Reviewer: Journal of Big Data (Springer) [2019 Date]
- ✓ Reviewer: Journal of Computer science (Science publications)
 [2017 Date]

ORDER OFFICE HELD AND COMMITTEES SERVED

- ✔ Chairman, Departmental Quality Assurance and Curriculum Development Committee – Information Technology Programme, UENR
- ✓ Chairman, Students Practical Examinations Committee, UENR
- ✓ Chairman, Departmental Proposal, Research and Seminar Committee, UENR
- ✓ Member, School Research and Seminar Committee, UENR
- ✓ Member, Departmental Digital Transformation, Innovation and Professional Development Committee, UENR
- ✓ Chairman, Departmental Examinations Committee, UENR
- ✓ Member, 2021 Smart systems Symposium Planning Committee, UENR
- ✓ Examinations Inspector, Ghana Education Service, Technical Exams Unit
- ✓ Member, Five (5) year development plan for the Department of computer science committee, STU
- ✓ Member: 2-Year To-up, BTech in computer science curriculum development Committee, STU
- ✓ Committee member: 4-Year BTech in Electrical & Electronic Engineering curriculum development, STU
- ✓ Member, 2-Year To-up, BTech in Electrical & Electronic Engineering curriculum development committee, STU
- ✓ Member: 4-Year BTech in computer science curriculum development, STU
- ✓ Department of Computer science Exams and Research Coordinator [January 2020 Date], STU
- ✓ Chairman, Project & Research Committee EEED [2017 to August 2019], STU
- ✓ Part-time Coordinator [2016 August 2019] STU EEED
- ✓ Time table coordinator STU EEED [2011 2016], STU

DEVELOPED SOFTWARE

- ✓ Student project-work management system (EEED STU, 2016)
- ✓ Timetable Management system (EEED STU, 2014)
- ✓ Point of Sales Management Software (2015)
- ✓ Credit Union Management System (2014). Use by
- ✓ The Apostolic Co-Operative Credit union Sunyani Area (TACCU)
- Sunyani Technical University Credit Union

- ✓ POTAG credit Union (STU)
- ✔ Planters Capital Microfinance Sunyani
- ✓ Church management System, February 2013. Use by
- ✓ Glad Tidings Assemblies of God Sunyani
- ✔ The Apostolic Church Sunyani
- ✓ Team-member Electronic Voting System, March 2012 Sunyani Polytechnic.
- ✓ Home Lighting Automation, December 2011 Catholic University College, Project Work

Supervised students project work

- ✓ A Web-Based Skin Disease Diagnosis Using Convolutional Neural Networks. Published in I.J. Inf. Technol. Comput. Sci. (2019) 54–60. DOI:10.5815/ijitcs.2019.11.06.
- ✓ Assessment of Natural and Artificial Lighting Levels in Lecture Rooms (A Case of Sunyani Technical University). Published in Glob. Sci. Journals. 7 (2019) 149–153.
- ✓ Predicting Monthly Electricity Demand Using Soft-Computing Technique. Published in Int. Res. J. Eng. Technol. 06 (2019) 1967–1973.
- ✓ An intelligent web-based point-of-sales management system
- ✓ A network-based Fingerprint attendance system for the Department of electrical and electronic engineering STU
- ✓ A hotel allocation and management system
- ✓ A predictive model for domestic electricity consumption using lifestyle data.
- ✓ Predicting the remaining life span of a distribution transformer in service.
- ✓ A novel android App for managing church activities

EDUCATION

PhD in Computer Science - 2021

The University of Energy and Natural Resources (UENR), Ghana

MSc. Information Technology – 2016

Kwame Nkrumah University of Science and Technology Kumasi

BSc Computer Science - 2011

Catholic University College, Fiapre Sunyani.

HND Electrical & Electronic Engineering - 2007

Sunyani Polytechnic, Sunyani.

PROFESSIONAL CERTIFICATIONS

- ✓ Blended learning pedagogy training on CANVAS [September 2021 to September 2022]
- ✓ Introduction to Data Science. (IBM) 2018
- ✓ Data Science Methodology. (IBM) 2018
- ✓ Data Science Hands-on with Open Source Tool. (IBM) 2018
- ✓ Data Privacy Fundamental (IBM) 2018
- ✓ Digital Analytics & Regression (IBM) 2018
- ✓ Introduction to R Programming (IBM) 2018
- ✓ Data Analysis and Visualization with R. (IBM) 2018
- ✓ Using R with Databases (IBM) 2018
- ✓ SQL and Relational Databases (IBM) 2018
- ✓ Python for Data Science (IBM) 2018
- ✓ Data Analysis with Python (IBM) 2018
- ✓ Data Visualization with Python (IBM) 2018
- ✓ Introduction to Big Data (IBM) 2018
- ✓ Predictive Modeling Fundamentals (IBM) 2018
- ✓ Machine Learning-Dimensionality Reduction (IBM) 2018
- ✓ Machine Learning with R (IBM) 2018
- ✓ Machine Learning with Python (IBM) 2018
- ✓ Deep Learning Fundamentals (IBM) 2018
- ✓ Deep Learning with TensorFlow (IBM) 2018
- ✓ Accelerated Deep Learning with GPU (IBM) 2018
- ✓ Electrical Engineering Technicians Three (EET III). 2004
- ✓ Electrical Engineering Technicians Two (EET II). 2003
- ✓ Electrical Engineering Technicians One (EET I). 2002

SHORT COURSE, WORKSHOPS AND CONFERENCES ATTENDED

- ✓ Innovative Teaching and assessment Practices in Higher education training [January 10-12, 2022], Sunyani Ghana.
- ✓ Arab Conference on Information Technology (ACIT' 2021).

- Sultan Qaboos University Oman [21st 23rd December 2021] Online.
- ✓ International Workshop on Paradigms of Intelligent Computing & Operations Research [21-Oct-2021 21-Oct-2021] Online
- ✓ AICTE sponsored STTP on machine vision for entrepreneurs' startups with a low seed fund [14th -19th December 20, 2020]. Online organised by Panimalar institute of technology, Chennai, Tamil, Nadu in partnership with IEEE
- ✓ AICTE sponsored FDP on Recent trends in IoT using embedded systems [7th − 19th December 2020]. Online organised by Mahatma Gandi institute of technology, India
- ✓ Modern-day blacksmith: Application of machine learning to material design, [22-11-2020]. An online symposium by BML MUNJAL University
- ✓ OPTIX'20 Summer School by OSA/OSU [1st 3rd July 2020]
- ✓ The Virtual Conference on Computational Science [1st 31st
 August 2019]
- ✓ ACM SIGCAS Conference on Computing and Sustainable Societies [3rd 5th July 2019]
- ✓ 1st Pastor's and Church Leaders Conference of the Fellowship International, Ghana [2018]
- ✓ Instructional skills workshop (Vancouver Island University) [2nd 5th October 2017]
- ✓ Programmable Logic Controllers (PLC) I (2nd May. 2015)
- ✓ Capacity Building Workshop: Improving Assessment Practices in the Tertiary Institution [22nd 23rd August 2011]
- ✓ Web seminar: Every Researcher needs to showcase their work. [30-03-2021]

PROFESSIONAL BODY MEMBERSHIP

- ✓ Computing Research Association of Ghana (CRAG) [ID: CRAG201800004
- ✓ Optical Society of America (OSA)/Optical Society of UNER (OSU)
- ✓ International Association of Engineers [ID: 241637]

LEADERSHIP

- ✓ Secretary AGCM (Sunyani Polytechnic) 2006-2007
- ✓ Team Leader Project Coordinating Committee Department of Electrical/Electronic Engineering Department Sunyani Technical University (2016 to August 2019).

	The president of Ever-Flourishing Voice Glad Tidings Assemblies of God (2009 – Date)
ORGANISED Workshops	✓ Website design and development✓ Managing your references with Mendeley
PUBLICATIONS & PRESENTATIONS	 Nti, I.K., Adekoya, A.F., Nyarko Boateng, O., Ramasami, P.: Empirical assessment of COVID-19 infections and information diffusion: a data science approach. Int. J. Med. Eng. Inform. 1, 1 (2022). https://doi.org/10.1504/IJMEI.2022.10044968. Nti, I.K., Quarcoo, J.A., Aning, J., Fosu, G.K.: A mini-review of machine learning in big data analytics: Applications, challenges, and prospects. Big Data Min. Anal. 5, 81–97 (2022). https://doi.org/10.26599/BDMA.2021.9020028.
	3. Adekoya, F. A., Nti, K. I. and Weyori, B. A. (2022) 'Long Short-Term Memory Network for Predicting Exchange Rate of the Ghanaian Cedi', FinTech, 1, pp. 25–43. https://doi.org/10.3390/fintech1010002 .
	4. Nti, I. K., Nyarko-Boateng, O., Adekoya, A. F., & Arjun, R. (2021). Network Intrusion Detection with StackNet: A phi coefficient Based Weak Learner Selection Approach. 2021 22nd International Arab Conference on Information Technology (ACIT), IEEE, pp. 1–11. https://doi.org/10.1109/ACIT53391.2021.9677338
	5. Nti, I. K., Nyarko-Boateng, O., Boateng, S., Bawah, F. U., Agbedanu, P. R., Awarayi, N. S., Nimbe, P., Adekoya, A. F., Weyori, B. A., & Akoto-Adjepong, V. (2021). Enhancing Flood Prediction using Ensemble and Deep Learning Techniques. 2021 22nd International Arab Conference on Information Technology (ACIT), IEEE, pp. 1–9. https://doi.org/10.1109/ACIT53391.2021.9677084
	6. Nti, I. K. , Nyarko-Boateng, O. and Aning, J. (2021) 'Performance of Machine Learning Algorithms with Different K Values in K-fold Cross- Validation', International Journal Information Technology and Computer Science, (6), pp. 61–71. https://doi.org/10.5815/ijitcs.2021.06.05 .

- 7. **Nti, I. K.,** Nyarko-Boateng, O., Adekoya, F. A., & Weyori, B. A. (2021). An empirical assessment of different kernel functions on the performance of support vector machines. Bulletin of Electrical Engineering and Informatics, 10(6). https://doi.org/10.11591/eei.v10i6.3046
- 8. **Nti, I. K.**, Akyeramfo-Sam, S., Bediako-Kyeremeh, B., & Agyemang, S. (2021). Prediction of social media effects on students' academic performance using Machine Learning Algorithms (MLAs). *Journal of Computers in Education*. https://doi.org/10.1007/s40692-021-00201-z
- 9. Nyarko-Boateng, O., Adekoya, A. F., Weyori, B. A., Ening, J., & **Nti, I. K.** (2021). Policy Compliance Standards for Underground Fiber Cable Deployment and Post-Deployment Protection. *Indian Journal of Science and Technology*, 14(25), 2088–2094. https://doi.org/10.17485/ijst/v14i25.518
- 10. **Nti, I. K.,** Adekoya, A. F., Weyori, B. A., & Nyarko-Boateng, O. (2021). Applications of artificial intelligence in engineering and manufacturing: a systematic review. *Journal of Intelligent Manufacturing*. https://doi.org/10.1007/s10845-021-01771-6
- 11. Beklisi, B., Ayawli, K., Appiah, A. Y., **Nti, I. K.**, Kyeremeh, F., & Ayawli, E. I. (2021). Path Planning for Mobile Robots using Morphological Dilation Voronoi Diagram Roadmap Algorithm. Scientific African, e00745. https://doi.org/10.1016/j.sciaf.2021.e00745
- 12. **Nti, I. K**., Adekoya, A. F., & Weyori, B. A. (2021). A novel multi-source information-fusion predictive framework based on deep neural networks for accuracy enhancement in stock market prediction. Journal of Big Data, 8(1), 17. https://doi.org/10.1186/s40537-020-00400-y
- 13. Nyarko-Boateng, O., **Nti, I. K**., Adekoya, A. F., Weyori, B., Asubam, & Appiah, S. (2020). Conceptual Framework for Efficient 802.11 A/B/G/N Wireless Networks Infrastructure to Improve Campus Internet Connectivity. *International Journal of Engineering Technologies and Management Research*, 7(11), 1–8. https://doi.org/10.29121/ijetmr.v7.i11.2020.802
- 14. Adekoya, A. F., & **Nti, I. K**. (2020). The COVID-19 outbreak and effects on major stock market indices across the globe: A machine learning approach. *Indian Journal of Science and Technology*, *13*(35), 3695–3706. https://doi.org/10.17485/IJST/v13i35.1180

- 15. **Nti, I. K.**, Teimeh, M., Adekoya, A. F., & Nyarko-boateng, O. (2020). Forecasting Electricity Consumption of Residential Users Based on Lifestyle Data Using Artificial Neural Networks. *ICTACT Journal on Soft Computing*, 10(03), 2107–2116. https://doi.org/10.21917/ijsc.2020.0300
- 16. **Nti, I. K.**, Adekoya, A. F., Opoku, M., & Nimbe, P. (2020). Synchronising Social Media into Teaching and Learning Settings at Tertiary Education. *International Journal of Social Media and Interactive Learning Environments*, 6(3), 1. https://doi.org/10.1504/IJSMILE.2020.10029810
- 17. **Nti, I. K**., Adekoya, A. F., & Weyori, B. A. (2020). A comprehensive evaluation of ensemble learning for stock-market prediction. *Journal of Big Data*, 7(1), 20. https://doi.org/10.1186/s40537-020-00299-5
- 18. **Nti, I. K**., Adekoya, A. F., & Nyarko-Boateng, O. (2020). *A Multifactor Authentication Framework for the National Health Insurance Scheme in Ghana using Machine Learning*. *13*(4), 639–648. https://doi.org/10.3844/ajeassp.2020.639.648
- 19. **Nti, I. K.**, Teimeh, M., Nyarko-Boateng, O., & Adekoya, A. F. (2020). Electricity load forecasting: a systematic review. *Journal of Electrical Systems and Information Technology*, 7(1), 13. https://doi.org/10.1186/s43067-020-00021-8
- 20. **Nti, I. K.**, Adekoya, A. F., & Weyori, B. A. (2020). Predicting Stock Market Price Movement Using Sentiment Analysis: Evidence from Ghana. *Applied Computer Systems*, *25*(1), 33–42. https://doi.org/10.2478/acss-2020-0004
- 21. **Nti, I. K.**, Appiah, A. Y., & Nyarko-Boateng, O. (2020). Assessment and prediction of earthing resistance in a domestic installation. *Engineering Reports*, 2(1). https://doi.org/10.1002/eng2.12090
- 22. **Nti, I. K**., Adekoya, A. F., & Weyori, B. A. (2020). Efficient Stock-Market Prediction Using Ensemble Support Vector Machine. *Open Computer Science*, 10(1), 153–163. https://doi.org/10.1515/comp-2020-0199
- 23. **Nti, I. K.**, Samuel, A., Michael, A., Asafo-Adjei, S., Agyemang, M., Samuel, A., & Michael, A. (2019). Predicting Monthly Electricity Demand Using Soft-Computing Technique. *International Research Journal of Engineering and Technology* (*IRJET*), 06(06), 1967–1973. https://www.iriet.net/archives/V6/i6/IRJET-V6I6428.pdf
- 24. Nti, I. K., Adekoya, A. F., & Weyori, B. A. (2019). Random Forest-Based Feature Selection of Macroeconomic Variables for

- Stock Market Prediction. *American Journal of Applied Sciences*, 16(7), 200–212. https://doi.org/10.3844/ajassp.2019.200.212
- 25. **Nti, I. K.**, Jonas, Y. S., Williams, A., Isaac, B. A., & Elvis, A. (2019). An Automatic Electrical Load Monitoring, Control and Alert System. *International Journal of Advanced Research and Publications*, *3*(7), 6–10.
- 26. **Nti, I. K.**, Adekoya, A. F., & Weyori, B. A. (2019). A systematic review of fundamental and technical analysis of stock market predictions. *Artificial Intelligence Review*, *53*(4), 3007–3057. https://doi.org/10.1007/s10462-019-09754-z
- 27. Akyeramfo-Sam, S., Addo Philip, A., Yeboah, D., Nartey, N. C., & **Nti, I. K.** (2019). A Web-Based Skin Disease Diagnosis Using Convolutional Neural Networks. *International Journal of Information Technology and Computer Science*, *11*(11), 54–60. https://doi.org/10.5815/ijitcs.2019.11.06
- 28. **Nti, I. K.**, & Quarcoo, J. A. (2019). Self-motivation and Academic Performance in Computer Programming Language Using a Hybridised Machine Learning Technique. *International Journal of Artificial Intelligence and Expert Systems (IJAE)*, 8(2), 12–30. https://www.cscjournals.org/library/manuscriptinfo.php?mc=IJAE-183
- 29. Akuribire, H. T., Puri, C., Abalena, A. G., & **Nti, I. K**. (2019). Assessment of Natural and Artificial Lighting Levels in Lecture Rooms (A Case of Sunyani Technical University). *Global Scientific Journals*, 7(6), 149–153.
- 30. Appiah, V., Asante, M., **Nti, I. K.,** & Nyarko-Boateng, O. (2018). Survey of Websites and Web Application Security Threats Using Vulnerability Assessment. *Journal of Computer Science*, *15*(10), 1341–1354. https://doi.org/10.3844/jcssp.2019.1341.1354
- 31. Akyeramfo-Sam, S., & **Nti, I. K**. (2017). State of Affairs in ICTs Usage within the Hospitality Industry (Guest House & Hotel) Operations: A Case of Brong Ahafo Region Ghana. *International Journal of Science and Engineering Applications*, 6(5), 143–149. https://doi.org/10.7753/IJSEA0605.1002
- 32. Amo-Asuah, C., Akyeramfo-Sam, S., & **Nti, I. K**. (2017). Evaluation of Server Performance in Cloud Computing on Virtual Network Infrastructure: Using Riverbed Simulator. *International Journal of Science and Engineering Applications*, *6*(3), 95–103. https://doi.org/10.7753/IJSEA0603.1005
- 33. Gyamfi, E., **Nti, I. K**., & Aning, J. (2017). Using LSB Steganography Technique and 256 bits Key Length AES Algorithm for High Secured Information Hiding. *International Journal of*

- Advanced Research in Computer Science and Software Engineering, 7(5), 674–681.
- 34. Appiah, V., **Nti, I. K.**, & Nyarko-Boateng, O. (2017). Investigating Websites and Web Application Vulnerabilities: Webmaster's Perspective. *International Journal of Applied Information Systems*, *12*(3), 10–15. https://doi.org/10.5120/ijais2017451673
- 35. **Nti, I. K.**, Gyamfi, E., & Osei, M. A. (2017). Effective Cryptographic Technique for Securing Cloud Storage Systems. *International Journal of Applied Information Systems*, 12(4), 19–25.
- 36. Boateng, O. N.-, Asante, M., & **Nti, I. K**. (2017). Implementation of Advanced Encryption Standard Algorithm with Key Length of 256 Bits for Preventing Data Loss in an Organization. *International Journal of Science and Engineering Applications*, *6*(3), 88–94. https://doi.org/10.7753/IJSEA0603.1004
- 37. **Nti, I**. **K**., Eric, G., & Samuel, Y. (2017). Detection of Plant Leaf Disease Employing Image Processing and Gaussian Smoothing Approach. *International Journal of Computer Applications*, *162*(2), 20–25. https://doi.org/10.5120/ijca2017913260
- 38. **Nti, I. K.**, Ansere, J. A., & Appiah, A. (2017). Investigating ATM Frauds in Sunyani Municipality: Customer's Perspective. *International Journal of Science and Engineering Applications*, 6(2), 59–65. https://doi.org/10.7753/IJSEA0602.1006
- 39. Twum, F., **Nti, I. K.**, & Asante, M. (2016). Improving Security Levels in Automatic Teller Machines (ATM) Using Multi-Factor Authentication. *International Journal of Science and Engineering Applications*, 5(3), 126–134. https://doi.org/10.7753/IJSEA0503.1003

REFERENCES

PROF. FELIX ADEKOYA ADEBAYO

Dean, School of Science (UENR) Acting PRO-VC, UENR

Tel: +233546169166

adebayo.adekoya@uner.edu.gh

Mr. F. Kyeremeh

Lecturer, Department of Electrical and Electronic Engineering Sunyani Technical University (STU)

Tel: +233244509800

EMAL: kfrimpgh@gmail.com
REV. DR. J. W. AWUNI Head Pastor Glad Tidings Assemblies of God Sunyani +233209408565