**CURRICULUM VITAE**

**DR. (MRS.) SYLVIA ADU**

**Department of Wood Processing and Marketing**

**Faculty of Forest Resources Technology**

**College of Agriculture and Natural Resources**

**Kwame Nkrumah University of Science and Technology, Kumasi**

1. **PERSONAL DATA**

 **NAME :** Sylvia Adu

 **DATE OF BIRTH** : September 17, 1972

 **PLACE OF BIRTH** : Kumasi, Ashanti, Ghana

 **NATIONALITY** : Ghanaian

 **MARITAL STATUS** : Married with four Children

 **POSTAL ADDRESS :** C/o Mr. George Adu, P. O. Box 3643, Kumasi

 **TELEPHONE** : 027-7452803, 024-9158325, 0501349031

 **Email** : slyadu2000@yahoo.com sadu.canr@knust.edu.gh

**2(a) UNIVERSITIES ATTENDED AND ACADEMIC DEGREES AWARDED WITH DATES**

Kwame Nkrumah University of Science & Technology, Kumasi, Ghana. 2008 – July, 2016

PhD. (Wood Science and Technology)

Kwame Nkrumah University of Science & Technology, Kumasi, Ghana. 1998 – 2002

MSc. (Wood Technology and Management)

Kwame Nkrumah University of Science & Technology, Kumasi, Ghana. 1993 – 1997

BSc. (Natural Resources Management)

**2(b) MEMBERSHIP OF PROFESSIONAL BODIES**

Society of Wood Science and Technology in U.S.A. (Full Member) 2014 – Present

**3. UNIVERSITY TEACHING AND RESEARCH EXPERIENCE**

**3 (a) Academic Ranks Held and Subjects Taught**

**Appointed Research Fellow** in the Department of Wood Processing and 2006 - Present

Marketing, Faculty of Forest Resources Technology, Kwame Nkrumah

University of Science & Technology

**Courses Taught:**

* SFM 304:Wood Processing
* SFM 305:Timber Harvesting
* SFM 306:Timber Grading and Marketing
* SFM 254: Introductory Ecology
* GEOG151:Meteorology for Natural Resources Management
* WPM 266: Forest Products Utilization
* WPM 351: Wood Anatomy and Wood Identification
* WPM 355:Wood Drying
* WPM 356: Sawmilling and Machining
* WPM 358: Saw Doctoring and Tooling
* WPM 352: Logging and Harvesting
* WPM 452: Veneer and Plywood Processing
* WPM 458:Timber Grading and Marketing

Apart from teaching my assigned classes, I also supervise theses/project work, conduct field trips to timber industries and Forestry Commission Training Centre for Undergraduate students.

**3 (b) Supervision of student projects and theses:**

**BACHELOR OF SCIENCE PROJECTS SUPERVISED:**

* Cudjoe Dela Godwin. (2016). Worker’s Occupational Health and Safety in Samartex Timber and Plywood Limited. 54 Pp.
* Osei Mensah Derrick. (2016). Developing a kiln drying schedule for *Copaifera salikounda;* a lesser used species. 55Pp.
* Owusu Okyere Perick. (2016). Determination of bond quality in *Celtis mildbraedii- Celtis mildbraedii* plywood combination at Samartex Timber and Plywood Company Limited. 56Pp.
* Obeng Daniel. (2015). Determination of the basic density, moisture content, shrinkage and sapwood and heartwood ratio of *Pterocarpus erinaceus* (Prio). 61Pp.
* Ohene Darko Kennedy. (2015). Weathering and Bending Characteristic of Plantation and naturally grown *Khaya ivorensis* in the moist semi-decidious forest zone of Ghana. 62Pp
* Asuka Boakye Eric. (2015). Quality control assessment in lumber production at Logs and Lumber Limited and Bibiani Logs and Lumber Company. 68Pp
* Faibil Daniel. (2014). Assessment of quality control in plywood production at Oti Yeboah Plymill Complex, Sunyani. 56Pp.
* Setsoafia Dela Eugene. (2013). Some morphological properties and primary machining principles of *Bambusa vulgaris*.71Pp.
* Oware Frimpong Campbell Richmond. (2012). Mechanical strength properties of *Bambusa vulgaris* and *Bambusa vittata* from the Sunyani locality. 88Pp.
* Nartey Felix Narteye. (2012). Occupational hazards and safety management in a wood processing industry. (A case study at Asuo Bosomadu Timber and Sawmills Limited, Berekum. 67 Pp.
* Asimeng-Osei Theodore. (2012). Assessing shrinkage in the drying of *Ceiba pentandra* and *Antiaris toxicaria* rotary veneer in plywood production. (A case study at Asuo Bomosadu Timber and Sawmill Limited (ABTS) – Berekum and Oti Yeboah Timber and Sawmilling Limited, Abesim). 79Pp.
* Tachie Philip. (2012). The socio-economic impact of Ghana Primewood Company Limited (GAP) operations on some selected fringe communities around Subri River Forest Reserve, Takoradi. (A case study at Wassa Mpohor East District in the Western Region of Ghana). 64Pp.
* Kumi Divine Noble Kofi. (2012). Evaluation of forest road corridor design methods: A case study at Tano Anwiam forest Reserve, Western Region, Ghana. 50Pp.
* Buah Kwame Elvis. (2012). Kiln drying schedules for three lesser used species: *Cylicodiscus gabunensis* (Denya), *Turraeanthus africanum* (Avodire) and *Piptadeniastrum africanum* (Dahoma). 69Pp.
* Nyame Tettey Samuel. (2012). Sawmill residue utilization. (A case study at Asuo Bomosadu Timbers and Sawmill Limited). 74Pp.
* Adjei, Simeon. (2011). Assessment of wood residue in energy generation at Samartex Timber and Plywood Company, Ghana. Pp. 83
* Manu Kobina Gregory. (2011). Quality Control Assessment in Plywood Manufacture (A case study at Asuo Bomosadu Timbers and Sawmill Limited. Pp 64
* Nelson, Godfred. (2011). Shrinkage level of *Ceiba Pentandra* Veneer in Plywood production (A case study at Asuo Bomosadu Timbers and Sawmill, Berekum)Pp. 46
* Dadzie Delali, . (2010). Sawmill conversion efficiency (A case study at Logs and Lumber Limited – Kumasi) Pp. 53
* Donkor, Alluwa. Beatrice. (2010). Rotary veneer recovery and improvement of *Ceiba Pentandra* (A case study at Asuo Bomosadu Timbers and Sawmill) Pp. 55
* Osei-Tutu, Enoch. (2010). Sliced veneer conversion efficiency (A case study at Ghana Primewood Limited) Pp. 56
* Pratt, Joshua. (2010). Determination of the Moisture Buffer values (MBV) of five woody species. Pp 60
* Akowuah Isaac Newton (2010). Comparative analysis of charcoal production practices using Kiln and traditional processes in Berekum 60Pp
* Larkotey Emmanuel Armah (2010).Assessment of Lumber recovery of four selected timber species. (A case study at Ayum Forest Products Limited- AFPL, Mim). 70Pp
* Mensah Agyman Joseph (2009). Lumber Recovery.66Pp
* Arthur, Florence. (2009). Hazards management in the timber industries (A case study at Scanstyle Limited, Mim). Pp. 49
* Tettey, Francis. (2009). Assessment of wood residue generation and utilization (A case study at Scanstyle Limited). Pp. 34

 **DIPLOMA PROJECTS SUPERVISED:**

* Tornyie Bernice (2010). Socio-economic impact of reforestation in the Abutia Hills Forest Reserve. (A case study of forest protection and resource use management “FORUM”).
* Biney Emmanuel (2010). Socio-economic impact ot timber harvesting operations on forest fringe communities. (A case study of Numereso community in Amansie central district.
* Atta George (May, 2008). Comparative study of strength properties of pruned and unpruned Teak(*Tectona grandis*) at Global Green Farm in Bossomkyekye, Ashanti region. Pp. 39
* Acheampong Bofah Martin (May, 2007). Location of small scale sawmills and their effects on water bodies at Mim,Brong-Ahafo region. Pp. 37
* Appau Yaw (May, 2007). Socio-economic impact of mining in Obuasi Municipality. Pp. 34
* Daya Lare Stephen (May, 2007). Evaluation of charcoal production in communities around Ejura in the Ashanti region. Pp.61
* Sarpong Akwasi (May, 2007). Effects of chainsaw lumbering on the forest resources in Bechem Forest District. Pp.62

**3 (c) Other professionally related experience**

* Curriculum development (Wood Science and Forest Products Option) for University of Energy and Natural Resources (UENR) – Chairperson. 2013

**4. DETAILS OF RESEARCH AND PROJECTS UNDERTAKEN SINCE LAST APPOINTED**

**4 (a) Research Conducted (2007 – Present)**

* Economic utilization of wood residue and its effect on the Environment.
* Assessing the Traditional and Kiln method of charcoal production.
* Assessment of Wood Residues in Energy Generation in Ghana.
* Assessment of work safety in the timber industry
* Mechanical strength properties of *Bambusa vulgaris* and *Bambusa virrata* from the Sunyani Locality
* Efficient Utilization of Wood Residue to Combat Climate Change.
* Moisture Buffer Values (Mbv) of Ten Ghanaian Timber Species.
* Physical Properties of Natural- and Plantation-Grown Cordia Timber Species in Ghana.
* Strength and some Physical Properties of *Allanblackia Parviflora* for Furniture Production in Ghana.
* Anthropometric evaluation of public institution sitting furniture designs.

**4 (b) Publications arising out of the research above and journals in which papers were published**

1. Adu, G., **Adu, S.,** Frimpong-Mensah, K. and Darkwa, N.A. (2015). Evaluation of A Modeled Office Chair in an Office Environment at Kumasi Polytechnic in Ghana. *International Journal of Recent Scientific Research, Vol. 6, Issue, 4, pp. 3719-3724*
2. Adu, G.and **Adu, S.** (2015). Anthropometry Dimensions of Ghanaian Public Workers: Comparison of Age, Gender and Body Mass Index (BMI). *International Journal of Innovative Research in Science, Engineering and Technology, Vol. 4, Issue 5, 2670 – 2676*
3. Adu, G.and **Adu, S.** (2015). Mismatch between Office Furniture and Anthropometric Measures in Ghanaian Institutions. *International Journal of Innovative Research in Science, Engineering and Technology, Vol. 4, Issue 5, 2687 – 2693*
4. **Adu, S.,** Adu, G., Effah, B., Frimpong-Mensah, K. and Antwi-Boasiako, C. (2015). Safety Measures in Wood Processing: An Important Component for the Entrepreneur – the Case of a Local Furniture Industry in Ghana. *International Journal of Innovative Research in Science, Engineering and Technology, Vol. 4, Issue 5, 2677 – 2686*
5. **Adu, S.** and Adu, G. (2015). Work-Related Musculoskeletal Disorders (WMSDs): A Reference Document for Prevention for Users of Office Furniture in Ghana. International Journal of Current Science and Technology, Vol. 3, Issue 8, 59 – 65
6. Adu, G**.** **Adu, S.** and Asare, K.P. (2015): User Institutions of Office Workers in Ghana: Investigating the Differences. European Journal of Physical and Agricultural Sciences, 3(3): 1-9
7. **Adu** **, S**., Adu, G., Frimpong-Mensah, K., Antwi-Boasiako, C., Effah, B. and Adjei, S. (2014). Maximizing Wood Residue Utilization and Reducing its Production Rate to Combat Climate Change. International Journal of Plant and Forestry Sciences, Vol. 1, No. 2: 1 -12
8. **Adu, S.,** Adu, G., Frimpong-Mensah, K., Adjei, S. and Effah, B. (2014). The Potential Effect of Cogeneration System in Combating Climate Change. World Journal of Agricultural & Biological Sciences, Vol. 1, No. 1: 1 - 9
9. Adu, G., **Adu**, **S.,** Effah, B., Frimpong-Mensah, K. and Darkwa, N.A.(2014). Office Furniture Design – Correlation of Worker and Chair Dimensions. International Journal of Science and Research, Vol. 3, No. 3: 709 – 715
10. Adu, G., **Adu,S.,** Effah, E. and Anokye, R. (2014)**.** Anthropometric evaluation of public institution sitting furniture designs. World Journal of Science and Technology Research, Vol. 2, No. 1: 1-15 ISSN: 2329 - 3837
11. Antwi, K., Effah, B., Adu, G. and **Adu. S.** (2014). Strength and some Physical Properties of Allanblackia Parviflora for Furniture Production in Ghana. International Journal of Science and Technology, 4(1): 1 – 8
12. **Adu, S**., Tekpetey, S., Oware, F.C. and Adu, G. (2013). Mechanical strength properties of Bambusa vulgaris and Bambusa vultaris var viltata for enhanced utilization in Ghana. Proceedings of 67th International Convention, Austin Texas. June 9 -11, 2013.

**5. CONFERENCES AT WHICH PAPERS WERE READ (with peered reviewed abstracts published)**

1. Adu, G., **Adu, S.,** Frimpong-Mensah, K., Darkwa, N.A. and Inkum, P. (2014): Ergonomic issues in furniture design: a case of an institution office chair design at 1st National Forestry Conference by CSIR-FORIG, Kumasi, Ghana at FORIG Premises (Fumesua). September16 – 18, 2014.
2. Adu, G., **Adu, S.,** Asante, A.B., Frimpong-Mensah, K. and Darkwa, N.A. (2014): Ergonomic issues in furniture design: a case of an institution office chair design at 1st National Forestry Conference by CSIR-FORIG, Kumasi, Ghana at FORIG Premises (Fumesua). September16 – 18, 2014.
3. Adjei, S., **Adu, S**. and Adu, G. (2013). The potential effect of Cogeneration system in combating climate change. Organization of Women Scientist for the Developing World (OWSD). 2nd Africa Regional Conference, Tyco City Hotel – Sunyani, Ghana. October 15 – 18, 2013. Pp 49
4. **Adu, S**., Adu, G. and Adjei, S. (2013). Maximizing wood residue utilization and reducing its production rate to combat climate change. Organization of Women Scientist for the Developing World (OWSD). 2nd Africa Regional Conference, Tyco City Hotel – Sunyani, Ghana. October 15 – 18, 2013. Pp 31
5. **Adu, S**., Tekpetey, S., Oware, F.C. and Adu, G. (2013). Mechanical strength properties of Bambusa vulgaris and Bambusa vultaris var viltata for enhanced utilization in Ghana. Proceedings of 67th International Convention, Austin Texas. June 9 -11, 2013.
6. **Adu, S.** and Adu, G. (2011): Safety Measures in Wood Processing, an Important Component for Entrepreneurship - A case study in a Local Furniture Industry at the 1st International Conference of Entrepreneurship Educators, Researchers and Entrepreneurs in Africa by The Institute of Entrepreneurship and Enterprise Development (IEED) of Kumasi Polytechnic at Anita Hotel (Akyakrom). 28th – 30th, 2011. Pp 46-47
7. Adu, G. and **Adu, S.** (2011): The Entrepreneur in Office Furniture Business: Some Critical Technical issues to consider at the 1st International Conference of Entrepreneurship Educators, Researchers and Entrepreneurs in Africa by The Institute of Entrepreneurship and Enterprise Development (IEED) of Kumasi Polytechnic at Anita Hotel (Akyakrom). 28th – 30th, 2011. Pp 42-43
8. Adu, G. and **Adu, S.** (2011): The Role of a Furniture Designer in an Entrepreneurial Environment at the 1st International Conference of Entrepreneurship Educators, Researchers and Entrepreneurs in Africa by The Institute of Entrepreneurship and Enterprise Development (IEED) of Kumasi Polytechnic at Anita Hotel (Akyakrom). 28th – 30th, 2011. Pp 53-54

**6 LIST OF ALL OTHER PUBLICATIONS**

**Conference proceedings**

* Adjei, S., **Adu, S**. and Adu, G. (2013). The potential effect of Cogeneration system in combating climate change. . Proceedings of Organization of Women Scientist for the Developing World (OWSD). 2nd Africa Regional Conference, Tyco City Hotel – Sunyani, Ghana. October 15 – 18, 2013. Pp 136 – 144.
* **Adu, S**., Adu, G. and Adjei, S. (2013). Maximizing wood residue utilization and reducing its production rate to combat climate change. Proceedings of Organization of Women Scientist for the Developing World (OWSD). 2nd Africa Regional Conference, Tyco City Hotel – Sunyani, Ghana. October 15 – 18, 2013. Pp 733 – 743.

**Book**

* Obour, R. and S. Adu. (2006). Technical Report Writing. Pp 125-137. In: Antwi, L.B., J. R. Ackah and A. B. Afrifa (Editors). Training Programme for Forestry Commission / Ministry of Food and Agriculture Staff on Modified Taungya System. July 31 – August 4, 2006. NPDC/CRNR. Baffour Printing Press, Sunyani, Ghana.

**7. RECORD OF SERVICE TO COMMUNITY**

**7(a) UNIVERSITY**

***Academic Tutor*** to students in the FFRT, 2007 – Present.

***Member*** to College of Agriculture and Natural Resources Board, 2012-2014 Academic year.

***Member*** to Students Industrial Attachment Committee, FFRT 2011- 2014.

***Member*** to Sandwich Coordinating Committee. FFRT. 2011 -2014**.**

***Member*** to Sawmill / Plantation Committee. FFRT,2011 – 2013.

***Chairperson*** to Procurement Committee. FFRT, 2011/2012 Academic year.

***Head*** to Department of Wood Processing & Marketing,2011- 2014

***Member*** to Faculty Board. FFRT, 2008 – Present

***Management Team Member*** toEnvironmental Education Programme 2006 – 2009.

***Chairperson*** to Committee for Curriculum development (Wood Science and Forest Products

Option) for University of Energy and Natural Resources (UENR) 2012/2013.

***Member*** to Committee to revitalize the UENR Sawmill – (Wood Scientist) 2012/2013 Academic

year.

***Member*** to Academic Board, UENR 2012-2013 Academic year.

***Member*** to Faculty Board, UENR 2012-2013 Academic year.

***Ag. Head*** to Department of Forest Products and Wood Science (UENR) 2012/2013 Academic

year.

***Resource Person*,** A Talk to UENR Students “How to succeed in the University” – 22/11/12.

***Resource Person,*** A Talk to UENR Students “Discipline and Decency” 2012/2013 Academic

year.

**7(b) NATIONAL**

***Management Team Member*** toEnvironmental Education Programme. 2006 – 2009 Academic year.

***Member*** to Outreach Student Drive Programme, FFRT (Science Maths and Technology – SMAT) 2014/2015 and 2015/2016 Academic years.

**7(c) INTERNATIONAL**

***Management Team Member*** toEnvironmental Education Programme 2006 – 2009 Academic year.

***Member*** to 2013 Organization of Women in Science for the Developing World’s (OWSD) 2nd

Africa Regional Conference Planning Committee. 2012/2013 Academic year.

**8. TRAINING COURSES, WORKSHOPS, SEMINARS & CONFERENCES**

 **ATTENDED:**

1. Training Workshop on TEEAL and AGORA for Ghana at KNUST. October 22 – 24, 2014.
2. 1st National Forestry Conference by CSIR-FORIG, Kumasi, Ghana at FORIG Premises (Fumesua). September16 – 18, 2014.
3. Workshop on Academic Mentorship. College of Science Auditorium – KNUST. 2nd April, 2014.
4. Workshop on “Trade Capacity Building for Ghana Phase II”. Value Chain Analysis of the Wood Sector in Ghana. Programme for Validation. Excelsa Lodge, Kwamo. Kumasi - Ghana. January 30, 2014.
5. Conference on Climate Change and its Impact on Africa: The Role of Science and Engineering for Combat. At Tyco City Hotel – Sunyani, Ghana. October 15 – 18, 2013.
6. Workshop on “Academic Quality Assurance and Leadership in Higher Education Management” – UENR. February 20, 2013.
7. Workshop on “Team Building Retreat for Moving Forward” – UENR. October 10 – 11, 2012
8. Conference of Entrepreneurship Educators, Researchers and Entrepreneurs in Africa (CEEREA) at Anita Hotel. November 2011.
9. Basics of Counselling, KNUST- Dean of Students at KNUST. April, 2011
10. Sexual Harassment in Tertiary Institution in Ghana, KNUST- Dean of Students at KNUST. April, 2011
11. Gender in Science and Technology, KNUST- Dean of Students at KNUST. April, 2011
12. Planning a successful carrier in Science and Technology, KNUST- Dean of Students at KNUST. April, 2011
13. How to write resume and cover paper. University of Guelph, Canada. Jan. 2011
14. Introduction to Distance Learning. University of Guelph, Canada. Nov. 2010
15. Training on Work Safety. University of Guelph, Canada. Sep. 2010
16. Management and Leadership Training Workshop at Anita Hotel. Aug. 2010
17. FLEGT implementation and adaptation of sustainable Forest Management Practices in Ghana Workshop at Royal Lamerta Hotel. June 2010
18. APERL Library Workshop at Faculty of Forest Resources Technology. May 2010
19. Correct Techniques in Furniture Construction at Wood Industries Training Center. May 2008
20. Workshop on Public Procurement Act, 2003 (ACT 663) at Faculty of Forest Resources Technology, KNUST –Sunyani. April 2008
21. Teaching and learning- The Canadian way at Malaspina University-College Canada, (now Vancouver Island University) October 2007
22. National Training Workshop on Design and Production of Decking based on European Standards at Wood Industries Training Center. Feb 2007
23. Competency Based Teaching and Learning at KNUST. August 2006
24. Effective Community Forest Management Supervision at FFRT. July-Aug 2006 FFRT

**9. PROMOTION OF KNOWLEDGE**

I have made considerable contributions to the promotion of knowledge in my field and related areas. My contributions have emphasised on improving the efficiency of sawmilling operations, sawmill residue utilization, work safety in the furniture industry, design of office furniture, anthropometric evaluation of public institution sitting furniture designs and mechanical strength properties of *Bambusa vulgaris* and *Bambusa vultaris var viltata* for enhanced utilization in Ghana. Some of these studies have been published and others have been presented at international conferences.

**10. SCHOLARSHIPS, FELLOWSHIPS AND OTHER AWARDS RECEIVED:**

**Name of the The location Period**

**Award Value Type of tenure held**

A Canadian scholarship $10,000.00 International GUELPH Sep. 2010-Feb.2011

 (The Canadian Bureau (Ontario)

for International Education,

on behalf of Foreign

Affairs and International

Trade Canada)

A Canadian scholarship $5,000.00 International NANAIMO Sep.2007-Oct.2007

(Malaspina University (British Colombia)

College, now Vancouver

 Island University & CIDA)

## **REFEREES**

**Prof. K. Frimpong Mensah**

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**Prof. William Oduro**

Department of Wildlife and Range Management

Faculty of Renewable Natural Resources

Kwame Nkrumah University of Science and Technology

E-mail: williamoduro@yahoo.co.uk

Cell Phone Number: 0244288321

**Prof. Charles Antwi-Boasiako**

Department of Wood Science and Technology

Faculty of Renewable Natural Resources

Kwame Nkrumah University of Science and Technology

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