

CURRICULUM VITAE**FRANCIS KOFI FORSON PhD**

Kwame Nkrumah University of Science and Technology (KNUST), Kumasi
Department of Mechanical Engineering

BIODATA:

DATE OF BIRTH: NOVEMBER 24, 1956
PLACE OF BIRTH: NEGBA- NUNGUA, ACCRA, GHANA
MARRIAGE STATUS: MARRIED
CHILDREN (TWO): 1. VICTORIA FORSON (NOW MRS VICTORIA MARMON-HALM)
 2. EMMANUELLA AMA FORSON
PARENTS: J.K. E. FORSON & MADAM ESI - AHOR (Both deceased)

1. EDUCATION**(a) UNIVERSITY EDUCATION:**

- December, 1995 – May, 1999:** Direct PhD programme by research:
De MONTFORT UNIVERSITY (DMU, LEIC.), Leicester, UK;
Degree Awarded: PhD July, 1999.
- September, 1991 – February, 1994:** Postgraduate programme in Mechanical Engineering:
UNIVERSITY OF SCIENCE AND TECHNOLOGY (UST), Kumasi, Ghana;
Degree Awarded: M. Sc (Mechanical Engineering) March, 1995.
- January, 1979 – October, 1982:** Under-graduate programme in Mechanical Engineering:
UNIVERSITY OF SCIENCE AND TECHNOLOGY (UST), Kumasi, Ghana;
Degree Awarded: B. Sc (Hons.) Mechanical Engineering February, 1983.

(b) SECONDARY EDUCATION:

ORDINARY LEVEL AND ADVANCED LEVEL: ODA SECONDARY SCHOOL
1971-1976; 1976 – 1978, RESPECTIVELY
Certificates Obtained: GCE ‘O’ LEVEL JUNE 1976, GCE Advanced LEVEL June, 1978.

(c) BASIC EDUCATION:

Sept. 1962- May 1971: AKIM-AKROSO L.A. ‘A’ PRIMARY AND MIDDLE SCHOOLS:
Certificate obtained: MSLC, 1971.

2. TEACHING & RESEARCH EXPERIENCE (UNIVERSITY LEVEL)

Aug. 01, 2017 – To date	<i>Professor</i> , KNUST, Kumasi
Aug. 01, 2014 – July 31, 2017	<i>Associate Professor</i> , KNUST, Kumasi
Sept. 01, 2012 – July 31, 2014	<i>Associate Professor</i> , Kumasi Polytechnic
Oct. 01, 2006 – July 31, 2012	<i>Associate Professor</i> , KNUST, Kumasi
Oct. 01, 2000 – Sept. 30, 2006	<i>Senior Lecturer</i> , KNUST, Kumasi
Oct. 01, 1987- Sept. 30, 2000	<i>Lecturer</i> , KNUST, Kumasi
Oct. 01, 1984-Sept. 30, 1987	<i>Assistant Lecturer</i> , UST, Kumasi
Oct. 01, 1982-Sept. 30, 1984	<i>Teaching Assistant</i> , UST, Kumasi

3. COURSES TAUGHT WITH DATES:

Undergraduate Level Teaching

ME 252	Fluid Mechanics II, 2001/2002
ME 166	Applied Thermodynamics, 2001/2002; 2004 – 2010/2012
ME 265	Thermodynamics I, 2001/2002, 2016/2017 – To date
ME 365	Thermodynamics II, 2001/2002 – to 2016/2017 – To date
SE 152	Technical Report Writing, 2001/2002
ME 261	Theory of Machines I, 1993/4, 2001/2002
ME 467	Internal Combustion Engines, 2001/2002; 2005 to 2015
ME 295	Mechanical Engineering Laboratory I, 2001 – 2004
ME 366	Heat Transfer, 2001- to 2017 – To date
ME 255	Strength of Materials I, 1993 – 1995
ME 266	Thermodynamics I, 2009/2010, 2010/2011- 2016/2017
ME 251	Fluid Mechanics I, 1992 – 1994
ME 468	Internal Combustion Engines 2015/2016, 2016/2017 – To date

Postgraduate Level Teaching:

ME 566	Heat and Mass Transfer, Sept. 2002 – 2006; 2010-2012; 2014/15 – To date
ME 582	Engineering Research Methods, 2004/2005; 2005/2006, 2006/2007
ME 565	Advanced Engineering Thermodynamics, 2005/2006; 2010-2012; 2014 – To date

4. Conferences/Seminars and Workshops at which papers were presented

- a. National Symposium on “Renewable Energy”, UST, Kumasi, February 1986.
- b. ANSTI Conference on “Renewable Energy for Development”, UST, Kumasi, February 13-16, 1989.
- c. 2nd Kumasi International College on Energy, UST, Kumasi, March 18-27 1991.
- d. Seminar on Resource Use for Sustainable Development in Forestry, Agriculture and Energy, CSIR, Accra, Ghana, January 20-22, 1993.
- e. 5th National Energy Symposium on “Energy in Agriculture”, Cape Coast, Ghana, July 26-30, 1993.
- f. Second International Training Workshop on Solar Drying Technologies for Agriculture and Industry’s, NCERD, Nsukka, Nigeria, November 24-27, 1993.
- g. 4-Day National Forum for review and adoption of 23 Syllabuses and associated national occupational standards for apprenticeship programmes in Ghana, Mariset Plaza, Accra, May 30 – June 2, 1994.
- h. 6th National Energy Symposium, Accra, November 29–December 2, 1994.
- i. 1-Day Conference on Renewable Energy Worldwide, De Montfort University, Leicester, England, January 17, 1996.
- j. 1-Day EMUREG Conference on Renewable Energy, Coventry University, Coventry, UK, 11 June 1996.
- k. 12th International Conference on Systems Engineering, Coventry University, Coventry, September 7-11, 1997.

- l. School of Engineering Research Retreat I, Coconut Grove Lodge, Obuasi, Ghana, September 24-25, 2001.
- m. School of Engineering Research Retreat II, Elmina Beach Resort, Elmina, Ghana, September 19-21, 2002.
- n. School of Engineering Research Retreat III, Busua Beach Resort, Agona-Nkwanta, Ghana, August 2003.
- o. ANSTI Conference on Postgraduate Training in Africa, Kumasi, Ghana, February 2002.
- p. Conference on Cross-Border Education and Development Co-operation, Bonn, Germany, June 30 – July 01, 2005.
- q. Conference on the Way Forward for PhD Studies at KNUST, Kumasi, Ghana; January, 24, 2004.

5. RESEARCH AND PROJECTS UNDERTAKEN

a. Research conducted

- i. Design and development of natural convection solar crop dryers (1990-1994)
- ii. Design and supervision of the construction of two commercial scale solar dryers at Agona-Asafo (March – August 1995). Consultancy work carried out for the Ministry of Mines and Energy.
- iii. Modelling and experimental investigation of a mixed mode natural convection solar crop dryer (Dec. 1995 – to date).
- iv. Investigation on the use of Jatropha oil as diesel fuel substitute (Sept. 2001 – to date).
- v. Design of solar crop using empirical relations, rules of thumb and concepts (July 2002 – Sept. 2003).
- vi. Design and construction of forced convection solar crop dryers (August 2003 – to date).
- vii. Experimental Investigation on the use of Blends of Jatropha Biodiesel and Kerosene as possible liquid fuel source in the Conventional and the Traditional Wick –Type Lanterns in Ghana.
- viii. The use of Cocoa Pod Husk as Fuel source for Co-generation of Electricity in Ghana.
- ix. Experimental and Simulation studies on the ventilation optimization in a chimney-dependent solar crop-dryer.

b. Publications arising out of research conducted

- i. Solar crop drying in Agriculture in Ghana.
- ii. Design and evaluation of 1000 kg capacity mixed-mode natural convection solar crop dryer
- iii. Natural convection solar crop dryers of commercial scale in Ghana: design, construction and performance.
- iv. Final report on the construction of the solar dryers submitted to the Ministry of Mines and Energy.
- v. Design of mixed natural convection solar crop dryers: An empirical approach using concepts and rules of thumb.
- vi. Mathematical modelling of a single-pass, double duct solar air-heater (SPDDSAH).
- vii. Modelling and parametric studies of deep bed drying process in a mixed mode natural convection solar crop dryers.

- viii. Modelling of deep-bed solar drying processes in a mixed-mode natural convection solar crop dryer.
- ix. Performance of Jatropha oil blends in a diesel engine.
- x. Experimental and simulation studies on a single pass, double duct solar air heater.
- xi. Computer Aided Sizing of Natural Convection Solar Crop-dryers.
- xii. Experimental Investigation on Chimney-Dependent Natural Convection Solar Crop-Dryer.

c. Journals in which papers are published

- i. Proceedings of the 5th Ghana National Energy Symposium
- ii. International Journal of Ambient Energy
- iii. Proceedings of the 12th International Conference on Systems Engineering ICSE' 97
- iv. Proceedings of the 1st and 2nd School of Engineering Research Retreat
- v. International Journal of Energy Conversion and Management
- vi. International Journal of Renewable Energy
- vii. Peer-reviewed Journal of the Ghana Institution of Engineers.
- viii. International Journal of Solar Energy
- ix. Peer-reviewed Journal of Engineering and Technology.
- x. APRN Journal of Science and Technology
- xi. International Journal of Energy and Technology Transfer (*IJETT*)

6. SIGNIFICANT PUBLICATIONS (in the last five years)

1. Felix Uba, Yesueneagbe A. K. Fiagbe, F. K. Forson (2018). “Implementation of Hydrodynamic model for operational forecasting in coastal waters of Ghana”.
2. C.K.K. Sekyere, F. W. Adams, F. Davis, F. K. Forson (2020) “Mathematical modelling and validation of the thermal buoyancy characteristics of a mixed mode natural convection solar crop dryer with back up heater” *Scientific African* **8** (e0044)
3. Felix Uba, Yesueneagbe A. K. Fiagbe, Richard Opoku, Francis Kofi Forson, Emmanuel K. Nyantakyi (2020). “CFD modelling and analysis of the trajectory and behaviour of oil pollutant particles in the Ghanaian territorial waters” *Scientific African* **8** (e00411).
4. C. K. K. Sekyere, F. W. Adam, F. Davis and F.K. Forson (2017). “Experimental Investigation of the Thermal Buoyancy Characteristics of a Mixed Mode Natural Convection Solar Crop Dryer with Back Up Heater”. *Journal of Energy Technologies and Policy* **7**(6), 23-36.
5. Sekyere C. K. K, F. Davis, Mensah L. D, and Forson F. K (2017). “Technical Analysis of Jatropaha and Palm Kernel Biodiesel as the Sole Fuel Source for Powering Diesel Engines”. *APRN Journal of Science and Technology* **7**(1), 8-18.
6. Sekyere C. K. K, Forson, F. K., Amo-Aidoo A., and Afriyie J. K. (2016). “Experimental Studies on an evaporative cooler as an option to mitigate post-harvest losses experienced by commercial producers of vegetables in Ghana”. *IJETT*, **33** (9). 453-461.
7. C. K. K. Sekyere, F. K. Forson, and F. W. Adam (2016). “ Experimental investigation of the drying characteristics of a mixed mode natural convection solar crop dryer with back up heater”. *Renewable Energy* **92**, 532-542

Other publications

8. J. K. Afriyie, M.A.A. Nazha, H. Rajakaruna and F. K. Forson (2013). “Mathematical modelling and validation of the drying process in a chimney-dependent solar crop dryer”. *Energy Convers. Mgmt* **67** (1), 103–116.
9. Sekyere, C. K. K., Forson, F. K., and Akuffo, F. O. (2012). “Technical and economic studies on lighting systems: A case for LED lanterns and CFLs in rural Ghana”. *Renewable Energy* **46** (12) 282 -288.
10. J. K. Afriyie, M.A.A. Nazha, H. Rajakaruna and F. K. Forson (2011). “Simulation and Optimisation of Ventilation in a chimney-dependent solar crop dryer”. *Solar Energy* **85** (7) 1560 – 1573.
11. C. K. K. Sekyere, F. K. Forson, and F. O. Akuffo (2010). “Experimental investigation of Jatropaha Biodiesel as replacement for kerosene in rural lighting” *Journal of Engineering and Technology* (2 & 3) 24 –32.
12. J. K. Afriyie, M. A. A. Nazha, H. Rajakaruna and F. K. Forson. (2009). “Experimental investigation on a chimney-dependent solar crop dryer”. *Renewable Energy* **34** (1) 217 – 222.
13. Ramde E. W. and F. K. Forson (2007). “Computer aided sizing of direct mode Natural Convection Solar Crop Dryers”. *Journal of Engineering and Technology* **1** 1– 9.
14. F. K. Forson, M. A. A. Nazha, F.O. Akuffo and H. Rajakaruna (2007). “Design of mixed-mode natural convection solar crop dryers: Application of principles and rules of thumb”. *Renewable Energy* **32** (14) 2306 – 2319.
15. F. K. Forson, M. A. A. Nazha, and H. Rajakaruna (2007). “Modelling and experimental studies on a mixed –mode natural convection solar crop-dryer”. *Solar Energy* **81** (3) 346 – 357.
16. F. K. Forson, K. E. Agbeko, I. A. Edwin, A. Sunnu, F. O. Akuffo and A. Brew-Hammond, (2004), “Solar Energy Resource Assessment for Ghana”, *Journal of the Ghana Institution of Engineers*, **2** (1), 31 – 34.
17. F.K. Forson, M. A. A. Nazha, and H. Rajakaruna (2003). “Simulation and experimental studies on a single-pass, double duct solar air heater”. *Energy Convers. Mgmt* **44** (8), 1209–1227.

18. **F. K. Forson**, E. K. Oduro, and E. Hammond-Donkoh (2004). “Performance of Jatropha oil blends in a Diesel Engine”. *Renewable Energy* **29** (7), 1135–1145
19. **F. K. Forson** (2004). “The British Model of PhD Studies” (Odai S. N. *et al.* eds.). In: *Conference Proceedings on the Way Forward for PhD Studies at KNUST*, Kumasi, January 27, 2004, 58–64.
20. **F. K. Forson**, E. K. Oduro, and E. Hammond-Donkoh (2002). “Performance of Jatropha oil blends in a Diesel Engine”. In: *Proceedings of the 2nd School of Engineering Research Retreat*, Elmina Beach Resort, Elmina, September 19-21, 241–247.
21. **F. K. Forson** (2001). “Modelling of deep-bed solar drying process in a mixed-mode natural convection solar crop-dryer”. In: *Proceedings of the 1st School of Engineering Research Retreat*, Coconut Grove Lodge, Obuasi, September 24-25, 115–131.

22. **F. K. Forson** and M. A. A. Nazha (1997). “Mathematical modelling of a single pass double duct solar air heater”. In: *Proceedings of the 12th International Conference on Systems Engineering*, Coventry, UK, September 11-17, 1997, Vol. 1, 253–259.
23. **F.K. Forson**, F. O. Akuffo, and M. A. A. Nazha (1996). Natural convection solar crop dryers of commercial scale in Ghana: design, construction and performance. *Ambient Energy*, **17** (3), 123 – 130.
24. **F. K. Forson** and F. O. Akuffo (1994). Design and evaluation of a mixed mode natural convection solar crop dryer. In: *Proceedings of the 6th National Energy Symposium*, Accra, November 29 – December 2, 1994.
25. **F. K. Forson** (1993). Solar Crop Drying in Ghana. (Singh K *et al* eds.). In: *Proceedings of the 5th National Energy Symposium*, Cape-Coast, July 26-30, 187–193.

7. OTHER RELATED PUBLICATIONS

26. **F. K. Forson** (1999). *Modelling and experimental investigation of a mixed-mode natural convection solar crop dryer*, Unpublished PhD Thesis, De Montfort University, Leicester, UK, (July 1999).
27. **F. K. Forson** (2009). A103–page, Four-Unit Course Handout in ME 166: Applied Thermodynamics for Distance Learning Students in Computer Engineering Programme at the Institute of Distance Learning, KNUST, Kumasi.
28. **F. K. Forson** (2015). A Course Handout in ME 467: Internal Combustion Engines for Fourth Year Mechanical and Aerospace Engineering Students of the Department of Mechanical Engineering, KNUST, Kumasi.
29. **F. K. FORSON** (2013). A Course Handout in MEC 305: Turbo-machinery for HND Plant 3 students of Kumasi Polytechnic, Kumasi.
30. **F. K. FORSON** (2013). A Course Handout in MEC 224: Heat Transfer for HND Plant 2 students of Kumasi Polytechnic, Kumasi.
31. **F. K. FORSON** (2013). A Course Handout in MEC 172: Mechanics of Fluids II for HND 1 students of Kumasi Polytechnic, Kumasi.
32. C. K. K. SEKYERE and **F. K. FORSON** (2013). A Course Handout in MEC 171: Mechanics of Fluids I for HND 1 students of Kumasi Polytechnic, Kumasi.
33. **F. K. FORSON** and R. OPOKU(2016) A course handout in Internal Combustion Engines for Engineering Students.
34. **F. K. FORSON** and **R. Opoku** (2016). A course handout in Heat Transfer for Third Year Engineering Students.
35. **F. K. FORSON** (2015). A course handout in Thermodynamics II for Third Year Engineering Students.

8. OTHER ACTIVITIES, HONOURS & AWARDS

1. **Assistant Examiner** in GCE “O” AND “A” Level Mathematics, WAEC, Ghana, 1985-1990
2. **Silver Member** (No. 0610390), *International Solar Energy Society (ISES)*-From February 2006 to January 2013.

3. **Hall Fellow**, Unity Hall – January 1987 to August 1995; 2000 to date.
4. **Member**, School of Engineering Board, Sept. 1992 – Sept. 1995; Oct. 2000 to December 2004.
5. **Elected Member**, Professor Addae’s Search Committee Appointed by the Academic Board of KNUST to appoint the premier Six Provosts of the Six (6) Colleges of KNUST. November-December 2004.
6. **Member**, Academic Board, February 2002 to Sept. 30, 2006.
7. **School of Engineering representative** on the Panel for the Review and Adoption of 23 Syllabuses and Associated National Occupational Standards for Apprenticeship Programmes in Ghana (30 May – 2 June 1994).
8. **Member**, Panel of Rapporteurs for the School of Engineering 1-day Workshop on Methods of Conducting University Examination, March 1994.
9. **Member**, Examining Body for the First Joint University Entrance Examination for Senior Secondary School Leavers.
10. **Project Manager** for the Construction of the 4-storey, School of Engineering Laboratory/Office Complex using direct Labour, November 2001 – October 2005
11. **Chairman**, Infrastructure Committee of the School of Engineering, Oct. 2000 to 2005.
12. **Chairman**, Transport Organisation Management Committee, June 1, 2002 – May 31, 2004.
13. **Chairman**, Taskforce for winning of sand and Manufacturing of blocks at KNUST. Dec. 2003
14. **Project Coordinator**, Junior In-Filling Housing Project at Hall Six, Dec. 2003 to Dec. 2004.
15. **Member**, Technocrat Management/Editorial Board. October 2002 to date.
16. **Postgraduate Coordinator**, Department of Mechanical Engineering, Sept. 2000 to Sept.2006.
17. **Member**, Academic Board Ad-hoc Syllabus Review Committee for the Departments of Physics, Chemistry, Biological Sciences, Computer Science and Mathematics. Sept 2004- Nov. 2005.
18. **Member**, School Engineering Guest House Management Committee, Sept 2003 to 2006.
19. **Coordinator of Postgraduate Programme**, Department of Mechanical Eng., Oct. 1, 2000 – Sept. 30, 2006.
20. **Head** of Security Services, KNUST, March 10, 2004 to December 2004.
21. **Head**, Department of Mechanical Engineering, February 2005 –Sept 30, 2006.
22. **Chairman**, Ad-hoc Committee for Implementation of Security Measures on KNUST Campus, April 2004.
23. **Member**, Dr. Okine’s Ad-Hoc Committee appointed by Academic Board to Advice it on the Modalities for Submission of Examination Results for Approval by Academic Board, March-April 2005.

EVALUATION OF PERFORMANCE IN SERVICE

(a) Service to University/National/International Community since promotion to Associate Professor in October 2006

24. **Elected Member**, KNUST University Council (Convocation Non-Professorial Representative) January 01, 2006 – December 31, 2007.
25. **Dean**, Faculty of Mechanical and Agricultural Engineering, October 01, 2006 – Sept. 30, 2007.
26. **Chairman**, Transport Organisation Management Committee, February 01, 2007- January 31, 2009.
27. **Chairman**, Planning Committee for Meritorious Long Service Awards 2006.
28. **Member**, Dr. Adei’s Ad-Hoc Committee Appointed by Academic Board to advice it on the running of Parallel programmes in KNUST Sept. 2006 – March 2007.
29. **Member**, - Dr. Antonio’s Ad- Hoc Appointed by the Academic Board of KNUST to advice it on re-introduction of supplementary, Sept 2006 – March 2007.

30. **Chairman**, College of Engineering Ad – Hoc Committee Appointed by the Provost of the College of Engineering to consider and Formulate Office Allocation Policy for the College, February – March 2007
31. **Member**, Akim- Akroso Senior High School Board of Governors, 2004 – 2011
32. **Member**, College of Engineering College Board, KNUST, Kumasi, January, 2005 – to July 31, 2010.
33. **Speaker/Resource Person**, Workshop on the Way Forward For PhD Studies at KNUST. Paper presented on the British model of PhD Studies at the Conference Room of KNUST.
34. **Facilitator** for the KNUST Distance Education Programme in Computer Engineering in ME 166 Applied Thermodynamics 2006 to 2009.
35. **Elected Member**, KNUST Welfare Services Board (Convocation Elected Representative) Dec. 2005- Dec. 2007.
36. **External Assessor** for Promotion of Knowledge of Academic Staff for Cape Coast Polytechnic in 2010 (one candidate), 2013 (two candidates), 2017 (one candidate).
37. **External Assessor** for Promotion of Knowledge of Academic Staff for Kumasi Polytechnic in 2012 (two candidates), 2016 (three candidates)
38. **External Assessor** for Promotion of Knowledge of Academic Staff for UMaT in 2007 (one candidate).
39. **External Assessor** for Promotion of Knowledge of Academic Staff for UEW in May 2007 (one candidate).
40. **External Assessor** for Research Publications in JUST of KNUST (2009).
41. **Member**, Technocrat Management/Editorial Board. October 01, 2006 to date.
42. **Chairman**, Committee set –up by the Resources and Planning Committee of the University to advise it on the proposal submitted by Data Link Institute (DLI) seeking academic programme collaboration with KNUST to run selected KNUST Academic programmes at DLI, TEMA March – April 2010.
43. **Chairman**, Committee appointed by the College Board of Engineering to advise it on the upgrading of the Petroleum Engineering Programme to full Departmental Status. December 2010 – March 2011.
44. **Supervisor for Distance Learning Examinations**. December 2009 to date.
45. **External Examiner**, Department of Technology Education, **University of Education, Winneba**. June 2011 to 2016
46. **Chairman**, Kumasi Polytechnic Faculty of Engineering Committee to investigate Examination Paper Leakage, July, 2013.
47. **Member**, **Kumasi Polytechnic Academic Board**, 2012- 2014.
48. **Member and Representative of Kumasi Polytechnic Academic Board** Search Committee for a Librarian, August 2013.
49. **Chairman**, Syllabus Review Committee to review the B.Tech. Programme in Electrical and Electronics Engineering of Kumasi Polytechnic July, 2013.
50. **Moderator for Faculty of Technology, UEW, 2011 to 2014**
51. **Reviewer of Conference Paper**, Applied Research Conference organised by Koforidua Polytechnic in July 2014.
52. **Member**, Ad-Hoc Committee for the Preparation of the College of Engineering Strategic Plan 2007-2016 (PLAN 2K16). Oct. 2007.
53. **Chairman**, IDL Examination Taskforce with five terms of reference as per letter IDL.86/SF.1/C'TEES/VOL. dated 31st October, 2014.
54. **Chairman**, IDL Committee to develop a proposal for Special Dispensation for IDL Students as per the letter IDL.86/SF.1/VOL.1.
55. **Head, Department of Mechanical Engineering, KNUST (2010-2012 & 2015 – 2017)**
56. **Chairman, University Timetables Synchronisation Committee 2016 to date**
57. **Chairman**, Committee set up by the Institute of Distance Learning to investigate an alleged examination malpractice involving one student July - August, 2010.
58. **Member**, College of Engineering College Board (under the Reviewed Collegiate System), from August 01, 2010 to July 31, 2012.

59. **Chairman**, College Ad-Hoc Office Allocation Committee, College of Engineering, August 2010.
60. **Member**, Search Committee Appointed by the Council of KNUST to appoint Provost for the College of Health Sciences June 2011.
61. **Member**, Academic Board October 01, 2006 – July 31, 2010.
62. **Chairman, IDL Special Committee** to evaluate all facilitators May, 2012
63. **Chairman**, Ad-hoc Committee to review and regulate teaching and examinations time tables and use of Classrooms across the University, August, 2016 to date.
64. **Chairman**, IDL Examinations Committee. August, 2014 to date.
65. **Member**, IDL Timetabling Committee. August, 2014 to date.
66. **Member**, Prof. Kwofie's Ad-Hoc Committee set –up by the Vice- Chancellor to investigate the Management of the Engineering Guesthouse, August 27, 2009 – November 16, 2009.
67. **Chairman**, Ad-Hoc Committee set up by the Institute of Distance Learning to investigate an alleged examination malpractice involving one student January - February, 2010.
68. **Academic Board Representative and Member**, Search Committee for the Appraisal of Provost, College of Health Science, May 2010.
69. **Academic Board Representative and Member**, Search Committee for the Appointments of Provosts for Colleges of the University April, 2010.
70. **Member**, - Prof. Oduro's Ad- Hoc Committee Appointed by the Academic Board of KNUST to reconsider and fine-tune the regulations regarding supplementary examinations, Sept 2008 – March 2010.
71. **Member**, Ad-Hoc Committee for the Preparation of the College of Engineering Strategic Plan 2016-2025 (PLAN 2K25). June-July 2017.
72. **Moderator**, Cape Coast Technical University, 2017 -

9. THESIS SUPERVISION AND EXAMINATION.

a. Undergraduate supervision 2001– to date.

1. Daniel Amevor, *Construction and testing of a Commercial Scale Solar Tent dryer*, July 2003.
2. Henry Kwame Datsomor, *The design and construction of an electrical heating system to preheat Jatropha oil in a diesel engine*, July 2003.
3. Benedict Ayi-Ago Okine, *Rehabilitation and Experimental Analysis of a solar Dryer for timber*, July 2001.
4. Gershon Dzapata, *Experimental Investigation of a Mixed-mode forced convection solar crop dryer*, July 2001.
5. Richmond Tetteh, *Rehabilitation and Experimental Analysis of a Solar Timber Dryer at Sunstex Timber Ltd., Kumasi*, 2002.
6. Albert Ogoe and Seldom Akaba, *Experimental Investigation of the use of Jatropha Oil as a Viable Diesel Fuel Substitute or as an Engine Accelerator Additive*, 2003.
7. Oduro Eric Kwabena & Evans Hammond-Donkoh, *Experimental Studies on a Stationary Diesel Engine Run on blends of Jatropha Oil and Diesel Oil*, 2002
8. Albert Amoah, *Comparative studies on two-natural convection solar crop dryers*, 2002.
9. Andrews Nortey, *Development of interface software for the design of mixed-mode natural convection solar crop-dryer*, 2001.
10. Mayoma Emmanuella Ekeruche, *Design, construction and testing of a forced convection solar dryer*, 2004.
11. Clifford Kumah, *Test and evaluation of a solar tent dryer*, 2004.
12. Imoro Adams, *Development a laboratory manual for thermodynamics*, 2004.
13. Francis Barnes Edem, *Development a laboratory manual for thermodynamics*, 2004.
14. Sekyere Charles, *Design and construction of an intermittent absorption refrigerator*, 2004.

15. Lawrence Kyei Asante and Martin Osei Owusu, *Experimental investigation of the use esterified Jatropha and its blends with diesel oil in a four-stroke four-cylinder diesel engine*, 2005.
16. Amankrah K. Gyamerah, Agyapong Williams and Dangbey Charles (2006). Technical Assessment of Jatropha biodiesel as diesel fuel substitute in Diesel engines.
17. Anison Samuel and Opoku Richard (2006). Technical Assessment of Jatropha biodiesel as possible substitute for kerosene in lighting and cooking in traditional end-use devices.

b. Postgraduate thesis supervision as 1st Supervisor from 2000 – to 2006.

1. **RAMDE**, Emmanuel Wendsongre (2004-2005). “*Computer aided sizing of direct mode natural convection solar crop dryers*”. Thesis submitted to School of Graduate Studies, Kwame Nkrumah University of Science & Technology, Ghana, January 2004. (Completed).
2. **KAUNDA**, Chiyembekezo Suzgo (2004-2005). “*Computer Aided Design and Economic Analysis of Solar Water Heating System*’. Final thesis submitted to the Department on 16/12/2005 for onward submission to School of Graduate Studies. (Completed).

Postgraduate thesis supervision as 1st Supervisor from 2006 to date

3. **SEKYERE**, Charles Kofi Kafui (2006-2007) “*Technical Assessment of Jatropha biodiesel as a substitute for kerosene in Conventional Domestic Lighting and Cooking Appliances*” September 2007. (MSc Completed).
4. **AMOABENG**, Owura Kofi, (2011-2012) “*Assessing the feasibility of a solar water heating system based on performance and economic analysis*” (MSc Completed).
5. **SEKYERE**, Charles Kofi Kafui (2009- 20012) Modelling and experimental studies on a mixed –mode natural convection solar dryer with biomass backup heater. (PhD Completed).
6. **Afriyie, J. K.** (2005- 2008) (Co-supervisor of PhD research carried at De MontFort University responsible for field experimentation in Ghana). (defended at De MontFort University, UK in 2008) (PhD Completed).
7. **YIRFA**, Napari Norbert (2012-2014) A Feasibility Study to replace electric water heaters with solar water heaters in Ghana: Goldfields Ghana as a case study. (MSc Completed).
8. **AGBEZUDOR**, Kowu (2011 – 2013) Design and Construction of a Vertical Axis Windmill. (MSc Completed)
9. **APPIAH**, Emmanuel Experimental Determination of friction factors and bonding material pressure limits of interplast and duraplast PVC pipes used in Ghana (2014 - 2016) (MSc Completed)

iii. Postgraduate Thesis supervision as 2nd Supervisor, 2000 – to date

1. **FRIMPONG**, Samuel Oteng (2004-2005). (Candidate successfully defended thesis on December 19, 2005) (MSc Completed)
2. **KWARTENG**, Akuoko Augustine (2011-2012) “*A conceptual framework for a cogeneration plant at the KNUST campus*”. (MSc Completed).

3. **AMANKWAH** Kofi Agyemang (2016-2017) “Design Optimisation of a solar-powered DC Freezer”. (MSc completed)

iv. Internal Examiner/Assessor for graduate Thesis Examination.

Candidate	Degree and Year of Examination
Mr. Francis Eku Quagraine	MSc Thesis, September 2001.
Mr. Seth Theodore Kwasi Dzokoto	MSc Thesis, September 2002.
Mr. Yesueneagbe Atsu Kobla Fiagbe	MSc Thesis, September 2003.
Mr. Ofori Johnson kwadzo	MTech. Ed., June 2003.
Mr. Tegah Cuthbert	MTech. Ed., June 2003.
Mr. Jallow Ibrima	MSc Thesis, November 2003.
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Mr. Pierre Dembele	MSc Thesis, December 2004.
Mr. Frimpong, Samuel Oteng	MSc Thesis, December 2005.
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Mr. Spencer Halm	MTech Ed., March 2003.
Mr. Cuthbert Kafui Tegah	MTech Ed., June 2003.
Mr. John Ofori	MTech Ed., March 2003.
Mr. Elvis Emmanuel Aboagye	MTech Ed., October 2001
Mr. Sekyere, Kofi Kafui Charles	MSc Thesis, April 2008.
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Mr. MOHAMMED Muye Haruna	MSc Thesis, September, 2015
Mr. Godwin Kafui Ayetor	PhD Thesis, October, 2016
Mr. YIRFA, Napari Norbert	MSc Thesis, July, 2013
Mr. APPIAH, Emmanuel	MSc Thesis, April, 2017
Mr. Amankwah Kofi Agyemang	MSc Thesis, October, 2017
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