

## PERSONAL DATA

| NAMES                       | ELIAS ONYANGO AKO                      |
|-----------------------------|--|
| PLACE OF BIRTH              | KISUMU                                 |
| AGE                         | 45 Years                               |
| NATIONALITY                 | KENYAN                                 |
| PERMANENT ADDRESS           | P.O. BOX 43844, NAIROBI                |
| MARITAL STATUS              | MARRIED                                |
| RELIGION                    | CHRISTIAN                              |
| TELEPHONE – LANDLINE/MOBILE | +254 20-810901/ +254 722 863 848       |
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|                             | ako.elias@ku.ac.ke                     |

# HIGHER EDUCATION

| PERIOD      | CERTIFICATE         | INSTITUTION    | AREA OF EXPERTISE                         |
|-------------|---------------------|----------------|---|
|             | /DEGREE             |                |   |
| 2008 – To   | PhD Student         | KENYATTA       | Solar Energy. PhD Research Topic:         |
| Date        | (Sustainable Energy | UNIVERSITY,    | Development and Optimisation of Solar     |
|             | Engineering)        | NAIROBI, KENYA | Water Pasteurisation System for use in    |
|             |                     |                | Rural Areas                               |
| 2003 – 2006 | MSc. RENEWABLE      | KENYATTA       | SOLAR ENERGY. MSc. THESIS                 |
|             | ENERGY              | UNIVERSITY,    | TITLE: Performance of a two element       |
|             |                     | NAIROBI, KENYA | plane reflector augmented flat plate      |
|             |                     |                | collector for solar water pasteurization. |
|             |                     |                | OTHER KEY AREAS:                          |
|             |                     |                | Biofuels Production, Hydropower           |
|             |                     |                | Technology, Wind Energy and Energy        |
|             |                     |                | Management                                |
| 1989 – 1995 | BSc.                | EGERTON        | Farm Power and Machinery                  |
|             | AGRICULTURAL        | UNIVERSITY,    | Agric. Processing Engineering             |
|             | ENGINEERING         | NJORO, KENYA   | Soil and Water Engineering                |

### **EMPLOYMENT HISTORY**

| PERIOD            | INSTITUTION/ JOB DESCRIPTION |   |
|-------------------|------------------------------|---|
|                   | COMPANY                      |   |
| January 2015 – TO | KENYATTA                     | CHAIRMAN and LECTURER, Department of Energy               |
| DATE (CURRENT     | UNIVERSITY                   | Engineering   |
| EMPLOYMENT)       |                              |   |
| July,2007 – Dec.  |                              | LECTURER, Administrative, Research and Teaching of        |
| 2014              | KENYATTA                     | Undergraduate and Post-graduate students at the School of |

|                  | UNIVERSITY,   | Engineering & Technology in the Dept. of Energy                   |  |
|------------------|---------------|---|--|
|                  | KENYA         | Engineering.  |  |
|                  |               | Departmental Examinations Coordinator                             |  |
|                  |               | PRODUCTION AND QUALITY CONTROL                                    |  |
| JULY 1997 – JUNE | HEAVY         | ENGINEER:   |  |
| 2002             | ENGINEERING   | DUTIES: - Production Planning and inspection of welding           |  |
|                  | LTD, NAIROBI. | and fabrication   |  |
|                  |               | - Supervision of production personnel                             |  |
|                  |               | <ul> <li>Documentation and writing of progress reports</li> </ul> |  |

### RESEARCH ACTIVITIES AND PUBLICATIONS

- 1. MSc. Thesis: Performance of a two element plane reflector augmented flat plate collector for solar water pasteurization
- 2. Performance of a 2-Element Plane Reflector Augmented Galvanised Pipe Flat Plate Collector for Solar Water Pasteurisation
  - E. O. Ako, T.F.N. Thoruwa, S.M. Maingi and E.M. Njagi, *Journal of Food Technology* 7 (1): 12-19, 2009 ISSN: 1684-8462, Medwel Publishing
- 3. Assessment of land cover changes in lake Olbolsat region of the central Kenyan highlands using Landsat Satellite Imagery aided by indigenous knowledge
  Muriithi Zacharia, Ako Elias, Kiplagat Jeremiah, Maingi Simon and Luke Omondi Olang.

  Journal of Biodiversity Management and Forestry 2013, 2:2 SciTechnol
- 3. Design of a solar tracking concentrator system for process heat generation
- 4. Design and Development of a portable low head low volume hydro-turbine for shaft power applications
- 5. Development and Optimisation of Solar Water Pasteurisation System for use in Rural Areas PhD Reasearch Topic. Funded by National Council of Science, Technology and Innovation
- 6. Development of Small Wind Turbines for Water pumping and Off-grid Power Production. On going research supported by National Council of Science, Technology and Innovation
- 7. Solar Water Pasteurisation: Review and Potential. *E. Ako, J. Kiplagat and I. Kiunga* Proceedings of the 6<sup>th</sup> International Conference on Appropriate Technology 'Appropriate Technology for the 21<sup>st</sup> Century: Technology Innovation to Empower Africa'
- 8. Exploring Water Resources planning and Management options in the Nyangores Headwater Catchment of the Maasai Mara River Basin in Kenya (MaMa-HYDRO) Period: January 2014 June 2016 Funded: Austria Commission for Development Research (KEF). International Partners: BOKU Austria, Kenyatta University

#### PROFFESSIONAL TRAINING

- 1. Solar Photovoltaic Training Course for Trainers JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY (August, 2014)
- 2. Solar Photovoltaic Workshop for Educators STRATHMORE UNIVERSITY, ENERGY RESEARCH CENTRE (July, 2014)

- International Training Workshop on Solar Energy Application, Lanzhou City, China (6<sup>th</sup> June–26<sup>th</sup> July 2011
- 4. Hydropower Training for English-speaking African Countries, Hangzhou China, (2<sup>nd</sup> July 28<sup>th</sup> July, 2012)

#### WORKSHOP AND CONFRENCES

- 1. 11<sup>th</sup> 14<sup>th</sup> May 2011 Capacity Assessment for East Africa Community Regional Strategy on Scaling up Access to Modern Energy Services Kigali, Rwanda.
- 2. 6<sup>th</sup> June– 26<sup>th</sup> July 2011 International Training Workshop on Solar Energy Application, Lanzhou City, China
- 3.  $28^{th} 30^{th}$  June, 2011 International Conference on Solar Energy Applications Gansu Natural Energy Centre, China
- 4. 2<sup>nd</sup> September 4<sup>th</sup> September 2011 Stakeholders Workshop on Potential of Small and Micro Hydropower Development in Kenya.
  - 2<sup>nd</sup> July 28<sup>th</sup> July, 2012 International Training Workshop on Small Hydropower Technology, Hangzhou, China
- 6. 27<sup>th</sup> -28<sup>th</sup> May 2013 Workshop on Appropriate Technology for the 21<sup>st</sup> Century: Sustainable Development in Africa. Review paper on Solar Water Pasteurization Techniques
- 7. 10<sup>th</sup> -11<sup>th</sup> February 2014 Regional Workshop for East Africa Energy Stake Holders
- 8. 24<sup>th</sup> -25<sup>th</sup> February 2014 National Nuclear Energy Stakeholders Forum
- 9. 25<sup>th</sup> 29<sup>th</sup> November 2014 6<sup>th</sup> International Conference on Appropriate Technology, Kenyatta University Conference Centre.

#### MEMBERSHIP TO PROFFESSIONAL BODIES

- 1. Graduate Engineer Engineers Board of Kenya
- 2. Member Kenya Renewable Energy Association
- 3. Member- Association of Energy Professionals Eastern Africa (AEPEA)

#### **OTHERS**

1. Technical Committee Member on Energy Management Standards – Kenya Bureau of Standards

#### **REFEREES**

1. Prof. T. N. THORUWA
SNR. LECTURER
DEPARTMENT OF ENERGY ENGINEERING
KENYATTA UNIVERSITY

2. PROF. E. N. NJAGI DEPARTMENT OF BIOCHEMISTRY KENYATTA UNIVERSITY