



**S.M.A.R.T.**

ENGINEERING/ENERGY EFFICIENCY  
/PRODUCTIVITY IMPROVEMENT (5S)  
/ENTREPRENEURSHIP/ DEVELOPMENT  
CONSULTANTS (K) LIMITED, NAIROBI/KISUMU/



Implementation Work-Plan -2016 /2019

The Republic of Kenya  
Ministry of Industrialization  
Ministry of Trade  
Ministry of Energy & Petroleum  
Ministry of Transport  
Ministry of Labour  
/Productivity

**KAIZEN**  
East Africa

THE **ISO - IEC** CONCEPT IN  
MANAGEMENT  
ENTERPRENEURSHIP/OPERATI  
ONS/PRODUCTION MAX PROFIT  
FOR **S.M.ES** IN ENERGY  
EFFICIENCY & RENEWABLE  
ENERGY -SOLAR - BIO GAS -  
WIND/ PRODUCTIVITY



Japan International  
Cooperation Agency

The Chief Consultant / National & International Technical Trainer & Examiner - TVETA / ERC / KAM / NTSA / NITA / NEMA / NCA / KEBS (NQI - "QMS" - ISO - 9001: 2015): Odhiambo Odawa **Cell Phone:** 0706 605 406 **Email:** [smartodawa@gmail.com](mailto:smartodawa@gmail.com)



# International E-waste Day

14th October 2019

The day compels us to focus our attention on promotion of sustainable efforts aimed at decreasing environmental pollution and raise awareness on the importance of proper e-waste management practices.

## You Are Invited!

 **WEEE Centre, Embakasi, Mihang'o**  
Off the eastern bypass.  
Kibiku Rd.

 **9am**

**RSVP**

[retha@weeecentre.com](mailto:retha@weeecentre.com)  
+254 717 158 424

[chebet@cfsk.org](mailto:chebet@cfsk.org)  
+254 725 257 672

**NB:**  
The 47-County Based Governments in Republic of Kenya (including ALL other East & Central Africa Countries) Requires many more "Hands- On" Practical JOB & WEALTH CREATORS / Practitioners & Contractors / Manufacturers ( Employers) , But NOT Educated JOB Seekers

## E-waste festival update



- Highlights: 55 participants across 3 days, 8 projects will be funded by Global LEAP to carry out pilots for better e-waste management across seven countries and tons of collaboration.
- Summary report: out next week (if you attended the festival and haven't provided feedback, [you can still do it](#)).
- Materials from the festival (presentations) are available on the GOGLA website:

<https://www.gogla.org/e-waste/e-waste-festival>

**THE KENYA RENEWABLE ENERGY ASSOCIATION (KEREA), & EAST AFRICA RENEWABLE ENERGY FEDERATION (EAREF),**  
**Renewable Energy Technologies ( SOLAR PV Home Systems (SHS) , SOLAR Water Heating (SWH) Solar – Hybrid Powered “**  
**Road Transport Vehicles , Motor Cycles - Boda Boda's , Farm Tractors , Aviation Air –Crafts & Water Boats / Ships etc. BIO -**  
**GAS & BIO – MASS / BIO – FUEL SYSTEMS , Zero - Waste & E - Waste Management Systems etc.) Practitioners /**  
**Contractors & National / International Practical “ Hands – On “ Technical Trainers & Examiners based at the**  
**Head Offices – The STRATHMORE University Renewable Energy Advanced Technical Training & Research Laboratory Center**

### **MR. ODHIAMBO ODAWA –**

**(Green Cooling Initiative in Refrigeration & Air Conditioning ( GCI & RAC) Project & Director - THE S.M.A.R.T. Energy Efficiency and**  
**Renewable Energy Technologies LTD. & Teaching at Technical University of Kenya & formerly Teaching at the JOMO Kenyatta University**  
**of Agriculture & Technologies ( JKUAT – Juja) / The KERA – EAREF – AEPEA (AEE) – TVETA –CDAAC – KETR Practitioner / Technical Trainer -**  
**Member}**

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1. **PROF. KEVIT DESAI** - ( the Current Kenya Government PS for EDUCATION - TVET Programs / formerly Chairman of the Council of Technical University of Mombasa (TUM) & Managing Director – LIWA & - CENTURION SYSTEMS/ SAMSUNG Co.}
2. **PROF. CHARLES ONDIEKI** - (Chairman & Director - CDACC /C- BET / TVETA},
3. **MR. ODHIAMBO ODAWA –**  
(Green Cooling Initiative in Refrigeration & Air Conditioning ( GCI & RAC) & Director - **THE S.M.A.R.T.** Energy Efficiency and Renewable Energy Technologies LTD. & Teaching at Technical University of Kenya & formerly Teaching at the JOMO Kenyatta University of Agriculture & Technologies ( JKUAT – Juja) / KERIA – EAREF – AEPEA (AEE) – TVETA –CDAAC– KETRIB Practitioner / Technical Trainer - Member},
4. **DR. QUANTAI** (Director - CDACC /CBET/ TVETA} , Ms. Zippora Meso (CDACC /CBET/ TVETA} ,
5. **Ms. AREGASH ( German – GIZ Renewable Energy Projects**



THE KENYA RENEWABLE ENERGY ASSOCIATION (**KERIA**), & EAST AFRICA RENEWABLE ENERGY FEDERATION (**EAREF**), Renewable Energy Technologies ( SOLAR PV Home Systems (SHS) , SOLAR Water Heating (SWH) Solar – Hybrid Powered “ Road Transport Vehicles , Motor Cycles - Boda Boda , Farm Tractors , Aviation Air–Crafts & Water Boats / Ships etc. BIO - GAS & BIO – MASS / BIO – FUEL SYSTEMS , Zero - Waste & E - Waste Management Systems etc.) Practitioners / Contractors & National / International Practical “ Hands – On “ Technical Trainers & Examiners based at the Head Offices – The STRATHMORE University Renewable Energy Advanced Technical Training & Research Laboratory Center

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**Green Cooling Initiative  
Training and Certification for the Refrigeration and Air  
Conditioning Sector  
April 4, 2019  
Fairview Hotel, Nairobi, Kenya**



**Participants and Facilitators Group Photo**

1. **R. DENNIS HUHREN** ( German GIZ Chief Technical Trainer - GCI & RAC including Renewable Energy Technologies ),
2. **MS. KATHARINA ARNDT** ( German GIZ & PROKLIMA Renewable Energy Technologies' Projects ,
3. **Ms. NEETA SHARMA** ( German GIZ – PROKLIMA – Renewable Energy Technologies Developments Projects ),
4. **MR. GEORGE KOCHIEL** (Director - HAEVA & GCI / RAC)
5. **MR. MARINDANYI KIRUI** - Director Ministry of Environment & Forestry,
6. **Ms. JULIET CHERUTO** ( GIZ - GCI & RAC Development Projects )
7. **MR. ODHIAMBO ODAWA** - Green Cooling Initiative & Refrigeration & Air Conditioning ( GCI & RAC) Project (Managing Director - **THES.M.A.R.T.** Energy Efficiency and Renewable Energy Technologies LTD. & Teaching at Technical University of Kenya / KERA –EAREF – AEPEA (AEE) – TVETA – CDAAC – KETRB Practitioner / Technical Trainer - Member}



UNIVERSITY OF  
HOHENHEIM



Solar  
Cooling  
Engineering



Strathmore University  
Energy Research Centre



**MR. ODHIAMBO ODAWA –**

(The GERMAN - GIZ Green Cooling Initiative in Refrigeration & Air Conditioning ( **GCI & RAC**) Projects & Managing Director - **THE S.M.A.R.T.** Energy Efficiency and Renewable Energy Technologies LTD. & Teaching at Technical University of Kenya & formerly Teaching at the JOMO Kenyatta University of Agriculture & Technologies ( **JKUAT – Juja**) / KERA – EAREF – AEPEA (AEE) – TVETA – CDAAC – KETRB Practitioner / Technical Trainer -Member},



# THE REPORT: The Quality of Kenyan GRADUATES from Public Universities Wanting (Daily Newspaper)

## Employers are increasingly shunning graduates from public universities as quality of courses offered fall

The Ministry of Education has attributed low employment rates among Kenyan graduates to falling education standards in public universities.

Education Cabinet Secretary Fred Matiangi cited the mismatch between knowledge, skills and competencies required in the market and what the universities offer as reasons why employers shun Kenyan graduates.

Youths aged between 15 and 34 form 25 per cent of the population, those who are unemployed form 17 per cent. This is an extremely high percentage of unemployment," said Matiangi.

The minister said most of the graduates lack timely labour market information.

In addition to these, the limited linkage between employers and training institutions have tremendously frustrated the absorption rate of graduates in the job market.

The Matiangi report reveals that between 2012 and 2015, a total of 143,202 students graduated from local public and private universities.

The number of students graduating from degree programmes in universities in Kenya has increased from 23,523 in 2012 to 49,020 in 2015.

**“The question that needs to be addressed at this time is... how many of these graduates have been employed?” - Matiangi.**

In the private institutions category, 78 per cent of the respondents mentioned Strathmore as their preferred university, a difference of just six per cent.



**PROF. DA SILVA** (Deputy VC - STRATHMORE UNIVERSITY & The Director of STRATHMORE UNIVERSITY Advanced Energy Efficiency Technical Training & Research Center) and **DR. BULLENT** (USAID - VOTEC Energy Efficiency - Renewable Energy Technologies Expert & Senior Lecturer ARIZONA STATE UNIVERSITY - USA) Celebrating with one of the first Advanced Practical SOLAR PV T.O.T. Practitioner - **MR. ODAWA** ( Director - **THE S.M.A.R.T. Energy Efficiency LTD.** / Teaching at Technical University of Kenya and formerly Teaching at the JOMO Kenyatta University ( JKUAT - Juja ) - The Beneficiary of KEPSA / KEREAA / KAM / TVETA Energy Efficiency & Renewable Energy Technologies Practical Technical Training Curriculum

## EMPLOYERS' MOST PREFERRED VARSITIES

- University of Nairobi: 84 per cent
- Strathmore: 78 per cent
- Jomo Kenyatta University of Agriculture and Technology: 63 per cent
- Daystar: 57 per cent
- Moi and United States International University: 45 per cent
- Egerton: 19 per cent
- Kenya Methodists: 17 per cent
- Mount Kenya: 13 per cent
- University of Eastern Africa, Barotoli: 7 per cent
- Maseno: 6.3 per cent

## THE STRATHMORE UNIVERSITY?

...and transition to a production system for excellence in graduate job placement national faculty - continuous learning - national community activities national academic trip - top for all undergraduate students first diversity - 36 faculties - top of the league - a network of alumni spanning 30 years



The First GIZ & USAID-VOTEC Sponsored Graduates in SOLAR Energy PV Systems Designs, Construction & Installations (Off - Grids, Hybrids, Mini Grids, Micro Grids) at The Strathmore University in partnership with The Arizona State University (USA) in July 2014 at The Site of Strathmore University 600kw SOLAR Energy Industrial Competency - Based - Skill Technical Training Project.

**PROF. DA SILVA** (Deputy V.C. - THE STRATHMORE UNIVERSITY & Patron / President - The Association of Energy Professionals East Africa (A.E.P.E.A & KEREAA - The Regional Local Chapter of Association of Energy Engineers (A.E.E. - Based in USA South Africa ) with the 1st GRADUATES in Advanced Energy Efficiency & Renewable Energy Technologies Training of Trainers (T.O.T.) - Practical “Hands - On” SOLAR ENERGY - Off Grid / Hybrid / Mini Grids / Micro Grids & Solar Hot Water Heating Systems (SHWH) Applications / Adaptations to Domestic Homes , Factories , Schools & Colleges, Hospitals & Dispensaries , Hotels & Lodges, Building Construction & REAL ESTATE Housing Development Projects. This includes SOLAR Application to LOW - COST / NON - CARBON EMISSIONS / NO NOISE - SOLAR “ Powered ” & “Hybrid” Road Vehicles / Road Transport Safety Industry PSV - SACCOs Operations Sponsored & Financed by TVET - CDAAC / ERC / NTSA / NEMA / USAID / VOTEC / GIZ / JICA National Technical Training Program at THE ROOF - TOP STRATHMORE UNIVERSITY 600 MW SOLAR Practical “Hands - On” Technical Training Projects.

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### 3 | FOCUS: THE BIG 4 AGENDA & THE BLUE ECONOMY FORUM 2019

pg.4





**THE KENYA RENEWABLE ENERGY ASSOCIATION (KERECA), EAST AFRICA RENEWABLE ENERGY FEDERATION (EAREF), KENYA ENGINEERING TECHNOLOGISTS REGISTRATION BOARD (KETRB), TECHNICAL VOCATIONAL TRAINING AUTHORITY (TVETA - KETRB) & THE KENYA PRIVATE SECTOR ALLIANCE (KEPSA), SNV – NETHERLANDS DEVELOPMENT ORGANIZATION (SNV), FEDERATION OF KENYA EMPLOYERS (FKE), KENYA ASSOCIATION OF MANUFACTURERS (KAM), ASSOCIATION OF ENERGY PROFESSIONALS EAST & CENTRAL AFRICA (AEPEA-AEE), KENYA BUREAU OF STANDARDS & NATIONAL QUALITY INSTITUTE (KEBS-NQI), NATIONAL TRANSPORT SAFETY AUTHORITY (NTSA)**

**KENYA Energy Mix (Mini –Grids & Off - Grids etc.) Registered & Licensed Practitioners, Power Purchase Agreements (PPAs) Developers / Practitioners / Site Contractors, Local & International Technical Trainers in 47 - County Based Practitioners (Employers) MEMBERS**

*Head Offices - The STRATHMORE University Renewable Energy Advanced Technical Training & Research Center*



**THE 2018 - 2022 - KERECA - EAREF - TVETA – KETRB National & International Executive Management Board & Technical Committee Members with KERECA - EAREF - EPRA - NEMA AEPEA (AEE) - KETRB (TVETA) - KEPSA & GERMAN – National & International German - GIZ / JAPAN - JICA – JCM Projects Formulation Renewable Energy Technologies Industrial-Commercial Power Purchase Agreements (PPAs) & Independent Power Producers (IPPs) Developers & Operators, Practitioners (- Employers) &**

**Part**

**ners at STRATHMORE UNIVERSITY Energy Efficiency & Renewable Energy Technologies Advanced Technical Training & Research Center**

**MR KAMAL GUPTA - NATIONAL & INTERNATIONAL KERECA - AEPEA (AEE) Chairman ( & Managing Director – SCHNEIDER Electrical / Power Technics Ltd), Mr. Cliff Owiti - KERECA -Chief Administrator,**

**MR. ODHIAMBO ODAWA –KERECA (EAREP) TC - Member & Director- THE S.M.A.R.T. Energy Efficiency & Renewable Energy Technologies LTD & Teaching at the Technical University of Kenya / Formerly Teaching at JOMO Kenyatta University of Agriculture & Technology (J.K.U.A.T.) -Juja)),**

**Mr. Charles Muchunku -KERECA - TC Member & formerly Chairman of KERECA ( 2009 - 2016 ), Mr. Stephen Mwatoa (Lecturer - Bandari College/Kenya Ports Authority (KPA - Mombasa) KERECA TC Member , Ms. Kriten Wanyama -**

**(KERECA Secretariat KERECA TC Member , Mr. Andreas - Treasurer of KERECA & Managing Director**

**- Hotpoint Company) - TC Member , Mr.**

**Enos Otieno - KERECA TC Member & Director - Telesales**

**( NB: New KERECA • AEPEA -AEE Practitioners I Technical Trainers I Members Invited - ODHIAMBO ODAWA )**

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