



**MULTIMEDIA UNIVERSITY OF KENYA**

**RENEWABLE ENERGY PROFESSIONAL SHORT COURSES**



**FACULTY OF SCIENCE AND TECHNOLOGY**

*Riding on Technology, Inspiring Innovation*

## 1. T1/T2 Solar PV Professional Short Course

### a. Course content

The Training covers but is not limited to: Solar Technology and Applications, Introduction to Solar PV Sizing (Excel), Electricity Basics, Mobile Training Kit (Introduction to Hands on Training), Load Designing, Energy Efficiency, Excel Sheet, Solar Resources and Orientation, System Components (PV Modules), System Components (Batteries), System Components (Controllers & Inverters), Site Survey and Shading Assessment, Trouble shooting, O & M, Commissioning & Safety Basics.

The Training prepares one for Energy and Petroleum Regulatory Authority (EPRA) Solar PV T1/T2 Technician Licencing Commissioning & Safety Basics.

### b. Target groups

The Training is ideal for groups or individuals from Government, Public or Private Institutions, Lecturers, Electrical Installation Technicians, Technical Institute Tutors, NGO's Outreach Personnel & Solar PV Retailers.

### c. Course duration and structure

The Course normally takes 5 days and includes Theory, Practicals and Site visits.

## 2. T3 Grid-Tie Solar PV Professional Short Course

### a. Course contents

The Training covers but is not limited to: DC Basics and Introduction to PV Modules, Maximum Power Point Tracking, Practical session on Stand-alone PV Systems, Stand-alone Vs. Grid-Tied System, AC Basics, Grid-Tied Inverters, Introduction to Sunny Design, Project design, Grid-Tied System I, II, and III, Tools and Measuring Instruments & Practical Examples of Systems.

The Training prepares one for Energy and Petroleum Regulatory Authority (EPRA) Solar PV T3 Technician Licensing and Solar PV System Maintenance.

### b. Target groups

The Training targets PV Engineers, Project Managers, Solar EPC Contractors, Solar Industry Professionals, PV System Designers or Technicians involved with Designing/ Implementing Grid-connected PV Systems.

### c. Course duration and structure

The course normally takes 5 Days and includes Theory, Practicals and Site visits.

### 3. Solar Water Pumping Professional Short Course

#### a. Course content

The Training covers but is not limited to: Electrical Energy Basics, Measuring Short Circuit Current, Passive Components, V/I Curves of PV Panels, Sun as an Energy Source, Photovoltaic Energy Conversion, Energy Storage, Solar Charge Controller, DC Safety, Shading, Fluid Dynamics, Water Pumps: Classification, Positive Displacement Pumps, Centrifugal Pumps, Casing Types and Multistage Pumps, Pump Curves, Mechanical Shaft Seals, Motor Drives, Pump Installation, New Installations, Retrofitting, Distribution and Storage, Piping and Friction Losses, Corrosion, Irrigation Systems, System Performance, Life Cycle, Cost Calculations, System hydraulics.

The Training prepares one for Energy and Petroleum Regulatory Authority (EPRA) Solar Water Pumping Technician Licensing and Solar Water Pumping Maintenance.

#### b. Target groups

The training is ideal for groups or individuals from Government, Public or Private Institutions, Solar Powered Irrigation Systems Planners, Lecturers, Water Installation Technicians, Technical Institute Tutors, NGO's Outreach Personnel & solar PV Retailers.

#### c. Course duration and structure

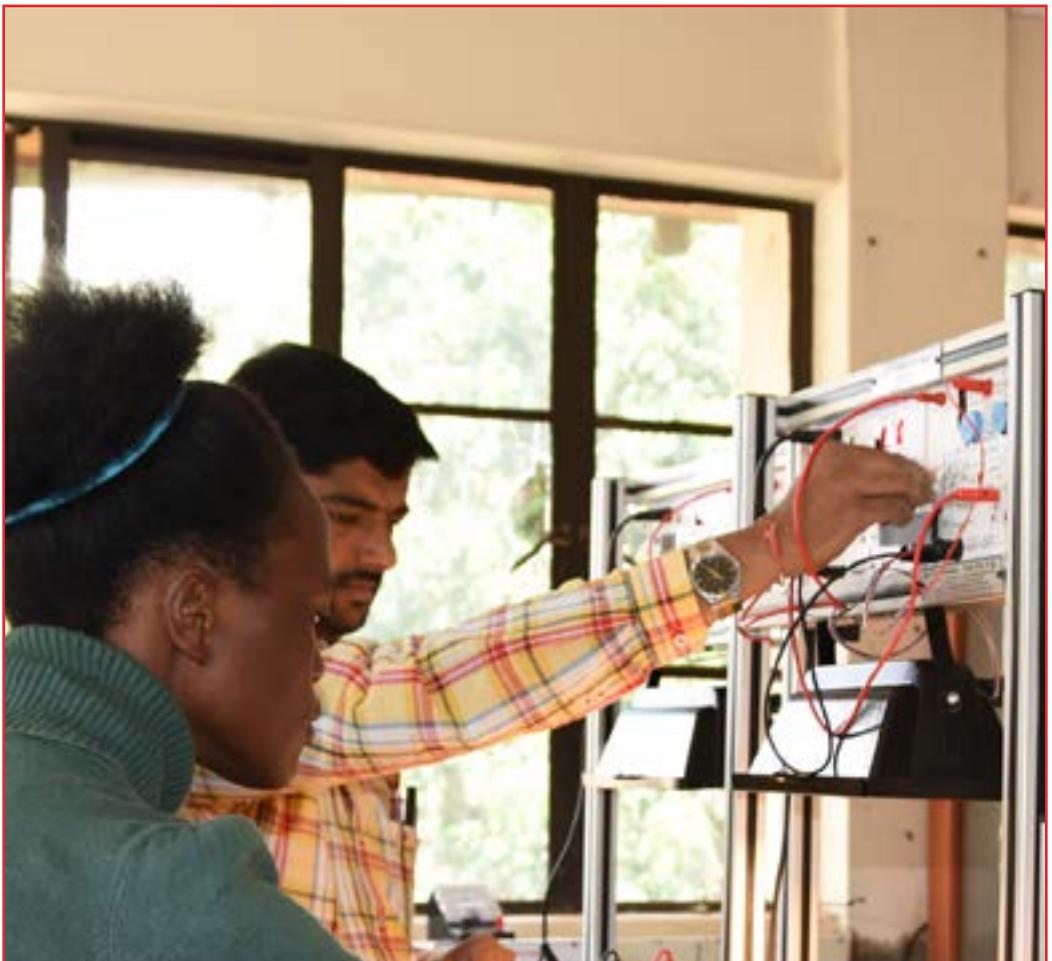
The Course normally takes 5 Days and includes Theory, Practicals and Site visits.

### WORKSHOP TRAINING FEE:

The cost for each of the Training is Kshs. 48, 000 (Fourty Eight Thousands Shillings only) per Person for Kenyans or USD 600 for International Participants.

### HOW TO APPLY FOR PARTICIPATION:

The Application form can be accessed at the Multimedia University of Kenya Website, [www.mmu.co.ke](http://www.mmu.co.ke) or can be emailed to interested participants on request.



**ENQUIRIES: Contact workshop coordinator on the following:**

**The Coordinator,  
Renewable Energy Short Courses,  
Multimedia University of Kenya,  
P.O. Box 15653 - 00503, Nairobi, Kenya.  
[resc@mmu.ac.ke](mailto:resc@mmu.ac.ke)**

**Or call the training coordinator on telephone +254 725037264  
for more information**