HIGHLIGHTS OF THE SOLAR ACADEMY

1. **Mission Statement:** Summarize the academy's mission and its commitment to promoting solar energy education, sustainability, and clean energy practices.

   We exist to enhance solar PV uptake through quality training and information dissemination to impact generations; to word towards value added research and training in Solar Photovoltaic, and in the process create a body of well-trained solar Photovoltaic Professionals ,experts and researchers while enlightening the public on solar photovoltaic through dissemination of accurate related Information.

2. **Overview**: Give a brief description of the solar academy, including its purpose, history, and any unique features or areas of specialization.

   The Solar Academy began about 13 years ago when after reading reports and hearing from people on the ground, we realized there was a problem with solar Photovoltaic design, sizing and installation coupled with a general lack of information to the larger public. We decided to be part of the solution and thereby a team of staff members from the Solar Energy Research group went for some Training or Trainers(ToTs) in a neighboring country. On coming back, the participants trained the other staff members in the Department and in 2012 the first cohort of about 41 trainees went through the T1&T2 training successfully, paving way for a series of trainings. Ever since, the solar Academy has trained at least two Cohorts every year. This combined with the special groups trained amounts to about 26 solar academies. The trainers enhance their skill and improve their experience by actively being involved in field work installations and through ToTs organized by other stake holders. The solar academy aims at training and releasing into the market professionals and experts in the solar PV sector. The academy has one of the highest concentration of human capacity in solar with about 10 trainers and facilitators putting it in a competitive edge compared to other training centers.

3. **Vision:** Share the academy's vision for the future of solar energy education and its role in shaping the renewable energy landscape.

   Our vision is to be a: A World class Solar training Centre.
   We endeavor to impact communities thorough quality training and information sharing and thus contribute to the achievement of United Nations goal number 7: promote affordable, reliable; clean energy to all. This will in turn promote education, agriculture, health among other sectors and thus help to eradicate poverty. This is expected to promote the use of solar energy as a renewable energy source.

4. **Numbers:** how many students that have graduated so far

So far we have graduated about 500 trainees

5. **Curriculum:** Describe the comprehensive solar energy curriculum offered by the academy. Highlight key subjects covered, such as solar technology, photovoltaics, solar installation, system design, maintenance, and energy storage.

   We explain why solar PV is necessary, why train in solar PV, PV status & Regulation Basic electricity, Introduction to PV, Modules/Panels types and characterization Module Interconnection & Standards, Types of PV Systems & Mounts, PV Storage Batteries Charge controllers, Power management & conditioning –Inverters, Inverters, features, types, selecting, PV appliances, PV wiring, Basic DC electrical wiring, PV Design and Sizing Planning, Installation & Commissioning, PV trouble shooting & PV System status Solar Pumping, Solar products marketing, PV to grid connection, Introduction to grid connected PV, need for grid connected PV Technical challenges, Grid connected PV technology, Installation of grid connected PV system

6. **Training Programs:** Outline the various training programs provided by the academy, including certification courses, workshops, hands-on training, and professional development opportunities for students, professionals, and businesses.

   We train on Solar Photovoltaic design and sizing. We issue a certificate of training after the training, we train the trainees on hands on installations and involve them in actual projects when they arise, We connect them to other people working in the sector

7. **Facilities and Resources:** Describe the academy's state-of-the-art facilities, solar labs, training equipment, and resources available to support practical learning and research in solar energy technologies.

   We have a potentiostat for charge transport, spray pyrolysis, vacuum coater, spin coater, spectrophotometer, talystep thickness scanner, programmable furnace, vacuum furnace, solar trainer for helping to demonstrate concepts, we have a solar simulator for measuring the efficiency of solar panels, thermos camera, insulation tester, earth desistence tester, battery tester, Iv analyzer, battery charger, light meter, training computers, installed solar system, batteries, panels, inverters, charges controllers, wires and all accessories need to one to do an installation

8. **Industry Partnerships:** Highlight any collaborations or partnerships with industry organizations, solar companies, or research institutions. Emphasize how these partnerships enhance the academy's programs and provide students with real-world exposure.

Uppsala University help us with equipment and other resources, proven Kenya Ltd -take our trainees for projects, parastatals like KPLC, government bodies like KNHA, REA, etc provide us with trainees and private companies and organizations like world vision, mkopa solar, Nairobi water, polytechnics, Universities, etc offer us with trainees

9. **Alumni Success:** Showcase success stories of former students who have excelled in the solar industry or contributed significantly to the field. Highlight any notable projects, innovations, or initiatives undertaken by alumni.

   Many trainees who come for the training say they were referred to us by former trainees and even some by EPRA. We are yet to carry out this intensive study lately as getting some is not easy. We did one in 2015 and the some of the comments are listed under testimonies

10. **Industry Recognition:** Mention any awards, certifications, or accreditations received by the solar academy, showcasing its commitment to quality education and industry standards.

    We are packaging ourselves for this since we are part of the Department

11. **Affiliations and Memberships:** List any affiliations with relevant professional organizations, industry associations, or educational networks that validate the academy's commitment to excellence.

    We are working on this

12. **Testimonials:** Include testimonials or quotes from current or former students, industry professionals, or partners who have benefited from the academy's programs and initiatives.

    Trainees confessed that after the training they gained Knowledge and can advise their clients more confidently and their relationship has improved, they could now handle solar installations better, business has improved with more contracts/jobs coming up. The trainees said they had received positive comments from their clients or bosses after the training, some were already offering training to other people, majority offering the training to their fellow technicians especially at their work places, they said they would recommend the training to others

Some comments also include:

"Thanks, it was a pleasure, Hard to say bye to you guys but cause of unavoidable circumstances the we had to say..best moments we spend God bless you all,''

'' The Phrase, what a class?, what a trainer? typically will remain on our thoughts and be proud of your teaching. God bless you Dr you have brighten much our career,''

'' see you again in August'', '

''Thank you so much for making this course so memorable. Thank you Dr waita and your team. You really are passionate about solar. You did it so effortlessly I admire that. …May the sun shine upon all of us that we may be agents of change to the community and our environment''

13. **Contact Information:** Provide the academy's contact details, including website, email, phone number, and physical address, to allow interested individuals to seek further information or apply for enrollment.

    For information please visit the Departmental website at https://physics.uonbi.ac.ke/. Or email The Chairman on: physics@uonbi.ac.ke or call : +254794587933/+2542049914119 or reach out to the Training Coordinator on email:swaita@uonbi.ac.ke; Mobile: +254722838140.

    You can also physically come to the Department based on:

    *Faculty of Science Building, 2nd floor, Chiromo Campus, University of Nairob*i