understanding new energies

TVET solutions for GREEN SKILLS
13.04.2022
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About us

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LEXSOLAR and UN SDG’s

1. No Poverty
2. Zero Hunger
3. Good Health and Well-being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry, Innovation and Infrastructure
10. Reduced Inequalities
11. Sustainable Cities and Communities
12. Responsible Consumption and Production
13. Climate Action
14. Life Below Water
15. Life on Land
16. Peace, Justice and Strong Institutions
17. Partnerships for the Goals
SDG No. 4: QUALITY EDUCATION - need quality equipment

- Established in 2003 as a spin-off from the Technical university of Dresden
- Worlddidac Award Winner
- One of the leaders in education in renewable energies
- Active in 60+ countries with over 50 partners
SDG 7: AFFORDABLE and CLEAN ENERGY – *we know why we need it*
SDG 7: AFFORDABLE and CLEAN ENERGY – 10 Topics, 1 goal - 100% NEW ENERGIES
SDG 7: AFFORDABLE and CLEAN ENERGY – 10 Topics, 1 goal - 100% NEW ENERGIES

= renewable energy and sustainable technology
SDG 8: DECENT WORK and ECONOMIC GROWTH

Global energy employment by technology, 2012–20

- Doubled since 2010
- 40+ million are expected globally by 2050
- ca. 15% in African Union

IRENA, Renewable Energy and Jobs, 2021
TVET SOLUTIONS

- Electrical Engineering
- Automotive Engineering
- Environmental Engineering
- Agriculture/Horticulture
- Food technology
- Chemistry
- Energy Efficiency
- Renewable Energies
Subject: Electrical Engineering, Renewable Energies

User group: Basic Training, Industrial Customers

- Photovoltaics training system for technical training
- Setup of fully equipped PV-systems in laboratory scale
- Complete curriculum
- Photovoltaics (PV) basics
  - Current-voltage-characteristics
  - Cells and modules
  - Temperature dependence
- PV system components
  - Solar module specifications
  - Charge regulator types
  - MPP-tracker, DC/AC inverter
- PV Systems
  - On-grid and off-grid systems
  - Dimensioning of PV systems
Content:
- Lamp set
- 3 types of solar cells
- DC-AC inverter
- PWM, series and shunt regulator
- Deep discharge protector
- Power module, AV-module
- Capacitors and resistors
- Consumers, cables, etc.
- **34 possible experiments**
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