Vocational Training for Technicians and Operators

VOCTEC’s vocational training programs for operators and technicians focus on installation, operations and maintenance of renewable energy (RE) systems in developing countries. Local operators are mainly concerned with properly operating and maintaining a correctly installed RE system, whereas technicians will additionally be trained in the installation of RE systems.

Our training programs provide a very hands-on, practical and applied technical learning experience. Students obtain a practical understanding of renewable energy technologies and their long-term sustainability and are able to safely and efficiently install, operate, maintain and troubleshoot RE systems in their respective communities.

Each vocational training program is customized in accordance with local in-country requirements. Coursework involves both classroom and hands-on training, to give students familiarity with actual systems and applications. Depending on local capacity, availability and requirements, the length of our vocational training programs vary from 2-5 days for short on-site training modules and up to several weeks for intensive vocational training programs in specialized training centers.

After completing VOCTEC training programs, students will understand:

- Fundamental electricity principles, including electrical charge current, voltage, power and resistance
- Operating limits of RE energy systems
- Common terminologies and components used in RE technologies such as solar, wind and micro-hydro
- How to understand natural resource assessments, and their relationship to local natural resources for efficient operation of RE technologies
- Best practices for system design and installation
- Importance of scheduled/periodic maintenance
- How to troubleshoot and repair renewable energy systems
- Difference between grid-connected and off-grid RE systems

What is VOCTEC?

Vocational training and education for clean energy (VOCTEC) is a multi-tier program under the leadership of Arizona State University (ASU) to improve the sustainability of renewable energy investments in developing countries by increasing awareness, knowledge and capacity of local stakeholders. VOCTEC training includes modules on design, installation, operation, maintenance, and policy of distributed, renewable energy systems, specifically solar PV, micro-hydro, wind, and hybrid systems utilizing one or more of these three technologies along with fossil-fuel generators.

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