



Call for Applications

Seminar on **Wind Energy**

26th – 30th August 2013 at EARTH University in Costa Rica (Campus Guácimo)

Deadline for applications: 29th July 2013

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1 Introduction

EARTH University/Costa Rica and Renewables Academy AG/Germany jointly implement the project “REN@EARTH”, which is a know-how-transfer project for renewable energy technologies, financed by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety in the frame of the Climate Initiative.

Parts of this project are three further education seminars for the duration of one week on Photovoltaic, Wind, Hydropower, and Solar Thermal, which will take place at EARTH University in 2013.

The seminars are being offered for professionals from the target countries **Costa Rica, Guatemala, Honduras, El Salvador, Nicaragua and Panama.**

The seminar “Wind energy” addresses the entire project cycle of wind energy projects from site selection, project development, financing to implementation, operation, and management of small and large scale wind energy applications. The seminar will include various practical exercises and a site visit to a large scale wind park.

For the seminar there are 15 places available.

2 Objectives

At the end of the five-day seminar participants will have:

- become familiar with typical wind energy applications, both for rural electrification as well as grid-connected systems
- a good understanding of the basic principles of wind energy systems and how they are designed and function,
- become familiar with the main aspects of the entire project cycle of wind energy projects from site selection, project development, financing to implementation, operation and management of small and large scale wind energy applications.
- become familiar with economic and market issues regarding off-grid and grid-connected systems;

3 Target groups and prerequisites for application

The target group for the seminar consists of professionals from Costa Rica, Guatemala, Honduras, El Salvador, Nicaragua, and Panama with the following background:

- technicians, engineers or other professionals with a strong technical background
- ideally working in the renewable energy industry, the energy sector, government entities, NGOs and other relevant stakeholders involved in the renewable energy market;
- participants shall wish to make practical use of the knowledge gained
- good command of technical English – seminar will be held in both English and Spanish

4 Content

The following aspects will be covered in the seminar:

- the wind energy resource
- wind energy systems
- wind energy yield assessment



- site selection
- project development
- economic aspects and financing of wind energy projects
- installation, operation & management
- market development
- field trips, practical calculation exercises
- practical hands-on experience

Participants will get a **preparatory information package** that they will have to work through before the seminar begins.

5 Practical training

Wind measurements will be conducted and analysed and a small wind energy plant will be set up. By using training equipment from EARTH University's Renewable Energy Training Centre power curve and energy yield measurements will be simulated. Economic calculations will be conducted with RENAC's Excel based wind energy calculation tool. Furthermore, participants will carry out basic wind park design calculations using their pocket calculators.

6 Language

The seminar will be taught in English and Spanish; also all materials used will be in English and Spanish.

7 Lecturers

- Mildred Linkimer (Earth University, Costa Rica)
- Volker Jaensch (Renewables Academy AG, Berlin)
- Rodrigo Mata (JuWi Costa Rica)

8 Materials

Participants will get printed handouts. All materials used and distributed in the seminar exclusively belong to RENAC. The participants of the program are not entitled to reproduce, copy, alter, distribute, sell materials, logos, *etc.* belonging to RENAC.

9 Certificates

All participants receive an EARTH University/RENAC certificate of attendance.

10 Application procedure

Please use the application form available at:

<http://www.earth.ac.cr/duY48>

under the EARTH-Events section.



There are 15 places available in the seminar. Please fill in the application form and attach your cv. Please send your application form to minkimer@earth.ac.cr

Deadline for application is Monday, 29 July 2013.

Selected participants will be informed, at the latest, at 8 August 2013.

11 Scholarship and costs

REN@EARTH is supported by the German Government and can therefore be offered as a partial scholarship program. Participation in the seminars can be offered at minimal cost to the participant.

The scholarship includes:

- attending the seminar
- seminar materials
- letter of invitation for travel visa for Nicaraguan citizens shall be provided

All other costs must be covered by participants, *e.g.* travel and accommodation costs, board, personal expenditures and visa fees if applicable. Participants are responsible for visa application procedure.

EARTH University can provide rooms, board and airport transfer for participants at a total cost of:

- Non Costa Rican citizens: single room from Sunday to Saturday, board and airport transfer (\$690 USD)
- Non Costa Rican citizens: double room from Sunday to Saturday, board and airport transfer (\$575 USD)
- Costa Rican citizens: double room from Monday to Friday and board (200.000 Colones)
- Costa Rican citizens: single room from Monday to Friday and board (170.000 Colones)