



The Abdus Salam  
International Centre for Theoretical Physics



**Low Cost Solutions for Wireless Connectivity  
(Soluciones de Bajo Costo para  
Conectividad Inalámbrica)**

14- 25 November 2011

Ciudad de Guatemala - Guatemala

The Abdus Salam International Centre for Theoretical Physics (ICTP, Italy) along with the Universidad San Carlos de Guatemala organize the above mentioned course, to be held at the Departamento de Física. Edificio T-1 Segundo Nivel, Facultad de Ingeniería, Universidad de San Carlos de Guatemala, 01012 Ciudad de Guatemala, Guatemala. Experienced tutors will guide and assist participants during the laboratory sessions. Motivated participants with a good teaching background can later become instructors for similar courses to be offered in their home institutions, taking advantage of the set of training materials developed for this purpose at ICTP, which are available in English, Spanish and French (See <http://WTKit.org>).

**SUMMARY AND PURPOSE**

The aim of this activity is to train participants in the planning, designing, building and maintaining broadband wireless data networks that can cover considerable distances. Such networks can be used to provide Internet access, build Campus networks, or collect data from remote sensors with scientific, environmental, and many other applications. The use of alternative energy source to power the communication devices will be emphasized, as these solutions are particularly useful in rural areas where grid power may be lacking or unreliable. The development of the Wireless Training Kit that will be used for this training was sponsored by Unesco and is freely available to be adopted as a teaching instrument for the interested participants.

*(El propósito de esta actividad es el de entrenar a los participantes en la planificación, diseño, construcción y mantenimiento de redes inalámbricas de banda ancha que pueden cubrir distancias considerable. Estas redes pueden usarse para acceso a Internet, para constituir redes de Campus, o para recolectar datos de sensores remotos, con aplicaciones científicas, ambientales y de muchos otros tipos. Se enfatizará el uso de Fuentes alternativas de energía para alimentar a los equipos de telecomunicaciones, puesto que estas soluciones son particularmente relevantes en zonas rurales en las que el suministro eléctrico puede no existir o ser deficiente. El kit de entrenamiento en redes inalámbricas (WTKit) que se utilizará en esta actividad fue desarrollado en el ICTP a solicitud de la UNESCO y puede ser utilizado gratuitamente como instrumento de enseñanza por aquellos participantes que deseen convertirse en instructores en sus respectivas sedes.)*

**PARTICIPATION**

Scientists, technologists, teachers and students from **Latin America and Caribbean** countries that are members of the United Nations, UNESCO or IAEA may attend the Course. As the Course will be conducted in **Spanish**, participants must have a good working knowledge of that language. A basic knowledge of networking with TCP/IP is also required.

As a rule, travel and subsistence expenses of the participants are borne by the home institution. However, limited funds are available for some participants from, and working in, developing countries, to be selected by the organizers. Such financial support is available only for those who attend the entire activity. Every effort should be made by candidates to secure support for their fare (or at least half fare) from their home country. **There is no registration fee to attend the Course.**

**El idioma del taller, incluyendo el material de apoyo, es el español. La inscripción en el taller es gratuita para participantes calificados.**

**HOW TO APPLY FOR PARTICIPATION**

The application form can be accessed at the activity website <http://agenda.ictp.it/smr.php?2289>  
Once in the website, comprehensive instructions will guide you step-by-step, on how to fill out and submit the application form.

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**DEADLINE**  
**for submitting**  
**application form**

**1 Sept 2011**