

ICTP – [The Abdus Salam International Centre for Theoretical Physics](#), Trieste, Italy

smr1301/Announcement

SCHOOL ON DIGITAL AND MULTIMEDIA COMMUNICATIONS
USING TERRESTRIAL AND SATELLITE RADIO LINKS

12 February - 2 March 2001
Miramare - Trieste, Italy

The Abdus Salam International Centre for Theoretical Physics (ICTP - Trieste, Italy), in co-operation with the International Union of Radio Science (U.R.S.I. - Gent, Belgium) is organizing the "School on Digital and Multimedia Communications using Terrestrial and Satellite Radio Links" to be held from 12 February to 2 March 2001. It will be directed by Prof. S. M. Radicella (Head of the Aeronomy and Radiopropagation Laboratory - ICTP) and Prof. R. Struzak (Member of the Radio Regulation Board - ITU).

This School is the follow-up of the previous schools on the use of radio for digital communications held in 1998, 1999 and 2000. These schools had on their turn replaced the past series of Colleges on Radio-propagation carried out at ICTP with the collaboration of URSI and ITU/BDT.

Because of the growing importance of computer networking the School will cover also topics related to this subject.

PROGRAMME

The School will include one week (the first one) of tutorial lectures and two weeks of laboratory work, where both computer networking and radio techniques for digital communications will be demonstrated. It will be complemented by selected case studies to be presented by the participants. Such a scheme proposed for the School is the result of experience gained during previous activities.

The programme will consist of:

1. Tutorial lectures given by international experts on the following topics:
 - ¥ Introduction: modern communication potential and needs in developing countries.
 - ¥ Perspectives of information society and global information infrastructure.
 - ¥ Access to the spectrum/orbit resources, and principles of spectrum management.

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- ¥ Principles of FDMA, TDMA, and CDMA (spread-spectrum) radio links.
 - ¥ Radio interference, electromagnetic compatibility, and coordination of radio links.
 - ¥ Earth-to-earth and earth-to-space radiopropagation issues of interest to broadband systems.
 - ¥ Satellite-based and terrestrial-based broadband radiocommunication systems.
2. Laboratory work using the digital communications facilities available at ICTP. This activity will simulate the planning and implementation of a campus computer network with simple multimedia facilities using radio links. The work will include practical exercises on:
- ¥ Computer networking using terrestrial and satellite radio links,
 - ¥ Intranet multimedia campus networks,
 - ¥ Videoconferencing hardware and software.
3. Discussions and analyses of selected case studies to be presented by the participants on issues related to the programme of the School. Technical experts from telecommunication enterprises will be invited to participate in this part of the School.

PARTICIPATION

Scientists and students from all countries that are members of the United Nations, UNESCO or IAEA can attend the School. The main purpose of the Centre is to help research workers from developing countries through a programme of training activities within a framework of international co-operation. However students and post-doctoral scientists from developed countries are also welcome to attend. As the School will be conducted in English, participants should have an adequate working knowledge of that language.

As a rule, travel and subsistence expenses of the participants should be borne by the home institutions. However, limited funds are available for some scientists from developing countries. As scarcity of funds allows travel to be granted only in few exceptional cases, every effort should be made by candidates to secure support for their fares (or at least half-fare) from their home country. It is stressed that participants whose travel expenses are paid by the ICTP are required to attend the entire School. For logistics reasons, connected with the number of Personal Computers available, the total number of participants in the School is limited. There is no registration fee for attending the

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School.

The closing date for requesting participation is 20 November 2000.

The completed request for participation form (also obtainable via e-mail: smr1301@ictp.trieste.it, and by typing on the subject line "get index" or via the WWW Server: <http://www.ictp.trieste.it/>) should be completed, signed and posted to:

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School on Digital and Multimedia Communications
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