



One day Workshop on

"Amateur Radio Communications and Computer Networks in Education"

October 10, 2012 (9.00am - 5.00pm)

Venue

Indian Institute of Information Technology and Management-Kerala (IIITM-K)
Technopark, Trivandrum
<http://www.iiitm.ac.in>



In association with

National Institute of Amateur Radio, Hyderabad
<http://www.niar.org>



Amateur Radio

The amateur radio is an old fine hobby from the days of inventing the Morse alphabet and implementing telegraphy. Since the second half of the 19th century, millions of volunteers learned new skills in communications - while attending the amateur radio courses and successfully passed examinations; got their first radio licenses and started transmitting signals to the spectrum. The electronics industry recognized the incoming "flood" of the new communicating enthusiasts, coming from all over the world and predicted them to be a good market very soon. Today we have a lot of opportunities to purchase sophisticated and computerized amateur radio "gadgets" - that include fascinating traditional and brand new communication modes. Besides telegraphy and radio telephony, there are a variety of computer-related possibilities to explore. As a result, today the modern radio amateurs are capable to establish exciting radio paths via Moon or artificial satellites, conducting short discussions with crews on the space ships, even to make an urgent search for medicines - using their computers. This workshop intends to give more instructions on how to start with the amateur radio and how to use both radio and computer technology for the same purpose.

Abstract

The workshop begins with introductory information about the amateur radio communications and continues with studying one of the most popular computer-related radio communication modes: the VHF/UHF and HF "packet-radio". The tutorial discusses (with examples) on how to choose inexpensive hardware and software needed for establishing the amateur radio links from either home or work. The tutorial explains step-by-step how to build an AMUNET - the Amateur Radio University Network - a grid of radio stations within or between universities' campuses and surrounding schools, including an opportunity to become a low-cost solution for communicating in educational institutions in rural areas and developing countries.



Instructor: Miroslav "Misko" Skoric, Faculty of Technical Sciences, University of Novi Sad, Serbia

The instructor has 20 years of experience in computer network administration and system maintenance and 20+ years of practice in the amateur radio. Skoric has been maintaining various types of amateur radio bulletin board systems (MS DOS, Windows and Linux platforms) with VHF/HF radio frequency and Internet inputs/outputs in the local amateur radio union and clubs-societies. He voluntarily served as the information manager and union's secretary during the nineties. Teaching experience includes several classes in a local amateur radio clubs; technical paper presentations during domestic and international events; tutorials on the amateur radio in engineering education, one round-table session, two book chapters and several magazine/journal articles, as well as a dedicated web page <http://tldp.org/HOWTO/FBB.html> having a popular amateur radio software users' manual. The instructor's researching efforts include his graduate studies in Computer Sciences, as well as his membership in IEEE Computer Society, IEEE Communications Society, IEEE Education Society, ACM and IAENG.

What will the participants learn?

- What is the amateur radio, who are the radio amateurs, how to find and join them;
- What is needed to establish a simplest computer communication between two users;
- How to solve the problem of natural or artificial obstacle between two (or more) users;
- What are the advantages of communication with the amateur radio satellites;
- How to exchange an e-mail without an ISP connection or without a telephone;
- How to choose the proper modem, radio, antenna and computer;
- How to fight against potential amateur radio 'pirates' (hackers);
- What regulatory changes are needed to establish more amateur computer networks;
- What topics and questions belong to the new suggested ADL license's curricula;
- How to make the local AMUNET and how to link it to a neighboring one

Intended Audience

- IEEE, ACM, CSI student members (and other students as well)
- Teaching personnel of academia, high-grade and schools
- Authorities and institutions in developing countries and rural areas in general, humanitarian entities, scientific expeditions organizers etc;
- Local radio amateurs, local ham clubs and national radio union(s); non-for-profit societies, and other technical-related volunteers;
- Officials of ITU, WARC-WRC, agencies and ministries of communications, science and education;
- Businesses like civil engineering, road and train builders etc., Which can also build their own radio infrastructure and private networks - using the same or similar principles as the amateur packet-radio.

Registration

Fee: Full-Time Students: Rs. 100
Others: Rs. 200



Registration fee covers working lunch and coffee breaks.

Those interested in attending must register online at <http://www.snds-conference.org/radio-workshop.html> before September 30, 2012. The fee will be collected at the workshop venue on October 10, 2012.

About IIITM-K

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IIITM-K Arts & Sports Club

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For more information,
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