OBJECTIVES

The following objectives would be achieved during the workshop to make its outcome more effective and fruitful for the participants:

1. To demonstrate the process of repairing the defective instruments by the experts;
2. To provide hands-on training to the participants for improving their skills for independently maintaining and repairing the scientific instruments;
3. To update the participants' knowledge on the latest techniques involved in the operation of scientific instruments;
4. To acquaint the participants with the functioning of scientific instruments through need-based training, as well as documentation of the repair and maintenance activities;
5. To update the trainees' knowledge on changing and new technologies in scientific equipments;
6. To facilitate information-exchange among scientists, researchers, technicians, service engineers, and industrialists for enhancing the existing scientific capacity.

Language: The working language for the Workshop will be English.

WHO SHOULD ATTEND?

Professional technicians, scientists, researchers, service engineers, and industrialists from various institutions from Sudan are encouraged to participate in the national Workshop.

For more information on the workshop, please visit the websites:

www.comsats.org and
www.isesco.org.ma and
www.icpsr.org.ma
INTRODUCTION

Scientific Research and Development activities are the most effective and sustainable tools in achieving long term national economic growth of the developing countries. A large proportion of this research is customarily conducted in the educational and industrial organizations, both in public and private sectors. The pace of research largely depends on the skills of the scientists and technicians, and the availability of the well-maintained scientific instruments. In the developing countries, lack of planning, inappropriate equipment inventories and severe shortage of repair and maintenance facilities pose considerable obstacle for the smooth progress of research programmes. In this context, the teaching and research institutions suffer more from delayed research output and the industrial units face production losses.

Unfortunately, the concerned management in most of the developing countries, including the Islamic Countries, do not pay enough attention to the establishment of maintenance facilities, resulting in the discarding of a large number of very expensive instruments and equipment. These losses can be averted by spending a fraction of money on the effective and preventive repair and maintenance processes as compared to the costs incurred due to time losses and procurement of the new instruments and by providing relevant training to the operators, concerned engineers and technicians of such instruments, equipment, etc.

There is a great need to develop an indigenous capacity to repair and maintain the scientific equipment in the developing countries, since inviting foreign experts for the purpose is time-consuming and economically unviable. Manpower adept in repairing and maintaining scientific equipments of all sorts used in the teaching and research institutions and industries can ensure uninterrupted research work, and thus lead to an overall socio-economic development of a country.

To enable the Islamic countries to achieve the technological self-reliance in the setting up of repair and maintenance facilities and to reduce the technological dependence on the foreign experts, a national training Workshop is being organized by the Commission on Science and Technology for Sustainable Development in the South, in cooperation with Islamic Educational, Scientific and Cultural Organization (ISESCO) and COMSATS’ Centre of Excellence in Sudan, the Industrial Research and Consultancy Centre (IRCC). The national workshop entitled “Repair and Maintenance of Scientific Engineering Equipment in Universities, Research Institutions and Small Scale Industries” will take place in Khartoum, Sudan, from 18th to 22nd August 2013. The Workshop is intended to highlight the issues/problems relating to the maintenance of scientific engineering equipments used in universities, research institutions and small scale industries. A number of experts would provide hands-on training to the participants of the workshop for upgrading their skills and enhance their capacities in repairing, maintaining and trouble-shooting important scientific engineering equipments in their organizations.

The workshop encompassing interactive lectures and practical training is a part of the COMSATS-ISESCO series, under which similar events were held in Tunisia (2012), Egypt (2011), Senegal (2010), Syria (2005), and Sudan (2004). These workshops have benefited over 210 scientists, engineers and technicians by building their expertise and capacity to indigenously repair and maintain scientific instruments used in the labs of R&D institutions as well as small-scale industries in their respective countries.