REPORT OF THE WORKSHOP ON ECONOMIC DEVELOPMENT FOR PHYSICISTS FROM DEVELOPING COUNTRIES

SAMEEN AHMED KHAN
(rohelakhan@yahoo.com, http://www.geocities.com/rohelakhan/)
Engineering Department Salalah College of Technology (SCOT) Salalah, Sultanate of Oman

Physics is the most basic of sciences and its concepts and techniques underpin the progress of all other branches of science and engineering. It is also a cross-cutting discipline that has applications in many sectors of economic development, including health, agriculture, water, energy and information & communications technology. The application of science through technology is crucial for providing the infrastructure that all modern countries need. The importance of physics for the economic development of all countries is being recognized. The physics community is proud of its accomplishments. Physicists can easily identify instances of great intellectual achievement and impact, but unless they have an understanding of the practical value of their knowledge in the contemporary economy of their country, they will fail to persuade investors (both government and private) to support them. It is essential that a fraction of the physicists acquire the entrepreneurial skills. With this as an aim, a one-week residential *Workshop on Economic Development for Physicists in Developing Countries* (EDPDC) took place at the Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy, during 27 November – December 2006. The Workshop was organized by the International Union of Pure and Applied Physics (IUPAP); the Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy; the Institute of Physics (IOP), UK and the European Physical Society (EPS). EDPDC is one of the several outcomes of the *World Conference on Physics and Sustainable Development* (WCPSD), a landmark event organized to celebrate the International Year of Physics, which was held during 31 October – 3 November 2005, at the International Conference Centre in Durban, South Africa.

EDPDC was much different from the conventional conferences, where the individual presentations of one's own research are the chief focus. EDPDC laid a great emphasis on group activities, case studies and role models. EDPDC was designed for physicists in developing countries who would like to learn entrepreneurial/commercialisation skills, now a vital part of the education programme. The aim of the workshop was to foster the culture of enterprise that will help physicists in their careers help them make positive contribution to the economy of their countries. There were twenty-four speakers covering a wide range of topics including: how to spot opportunities; identification of market needs; how to protect intellectual property; need for confidentiality; patenting; how to bring developments to market; licensing; raising capital; funding; venture capitalist route; legal issues; incubation; etc. The workshop also provided the participants an opportunity to engage with successful role models who are experts in their field and to discuss real life issues, barriers and challenges. A number of case studies were discussed providing an excellent opportunity to understand the issues involved and to identify the best practice from the examples. There were several group activities enabling the participants to learn the various transferable skills like negotiation, interpersonal and communication. There were about seventy participants. All the presentations and workshop materials are available from the ICTP website.

An internet-based Discussion Forum has been set up. The main aim of the forum is to provide the EDPDC participants a neutral online platform to network, share their knowledge & information and receive online educational material to develop their business skills. The forum shall also provide input from speakers of the Workshop, who are expert in

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C) President G.V. Kelkar appointed Prof. S.D. Padmannavar as a Chairman of the committee which would look in to the approved text books of Physics for Std. XI and XII and suggest the modalities in view of scope and limitations of every topic and sub-topic prescribed by the Board. Padmannavar could take the help more teachers, not necessarily EC members. He was requested to complete this work and handover the report by the end of June 2007.

D) Prof. Padmannavar suggested that new office bearers from Regional Council visit the Sub - Regional Councils. The suggestion was accepted in principle.

E) Prof. Marathe suggested that in present scenario the use of computers and modern techniques is unavoidable. Training in modern teaching aids– E-Learning, Edu-Sat. Power Point Presentation, etc. – should be given to Physics teachers. The suggestion was welcomed by all. However, the President remarked that unless some private agency comes forward it would not be an easy task.

F) Prof. S.A. Deshpande suggested that in view of NGPE a Workshop for B.Sc.-II and B.Sc.-III students, preferably for two weeks, was necessary. This would also help in developing a liking for the subject which may increase the strength of B.Sc. – III students offering Physics as major subject.

11. Towards the end of the meeting Principal of the college, Dr. H.S. Nirmale also participated. President Kelkar requested him to host Regional Convention here. He promptly asked his Physics Department Staff to give a serious thought to the suggestion.

12. Secretary Prof. B.N. Kamble proposed a vote of thanks. at the end.

BR Kamble
Secretary

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their field of commercialisation. EDPDC was a very successful Workshop. Several participants have come up with action plans they are working on in their own university and trying to implement similar model for benefit of the community. Some of the participants are now initiating entrepreneurial culture in their own country. A report of such activities is expected in the coming year.

EDPDC was a unique event and sure to have far reaching impact in achieving its goals. Working together on the many common problems, scientists could become the frontline in promoting greater harmony, facilitating a purposeful attack on the formidable development issues faced by the developing countries.

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