Technology Education Challenges and Solutions in Latin America

Ramiro Jordan, L. Howard Pollard, Chaouki T. Abdallah, Jorge Sanín, Johann A. Van Reenen,
Marisa R. De Giusti, and Paulo Roberto Girardello Franco

Index Terms—**Information technology education, Latin America, technology education**

I. SUMMARY

The world has become dependent on information, technology, and telecommunications, better known as Information Technology and Telecommunications (IT&T), a term that encompasses the fields of Electrical and Computer Engineering, and Computer Science. Increasingly, IT&T is an effective indicator of the difference between developed and developing nations. The competitiveness of a nation is directly related to its incorporation of IT&T which requires a substantial restructuring of the forms and procedures in attempting to generate a base for development of science and technology. To achieve this, it is important to revise the education of human technical and scientific resources. This paper summarizes the experience of the Ibero-American Science and Technology Education (ISTEC) consortium in IT education in Latin America.

Ramiro Jordan (S'84–M'86) was born in Bolivia, He received the Electrical Engineer degree from the Universidad Nacional de la Plata, Argentina. In 1987 He received the doctorate degree in electrical engineering from Kansas State University, Manhattan, KS, in 1987.

Since then, he joined the select team of professors and researchers at the University of New Mexico, Albuquerque. He has centered his activities of research in software engineering, digital processing of signs and images, communications network, microprocessors and microcontrollers. In 1990, after he made an investigation regarding the future of the Science and the Technology in Latin America and after meeting with representatives of several universities and industry of the private sector, he created ISTEC (Ibero-American Science & Technology Education Consortium), of which he is now the Strategic Manager. ISTEC is a nonprofit organization that its objective is to plan and implement projects and programs to promote the development of the superior education, the research, and the transfer of technology of scientific and technological matter in the region.

Dr. Jordan has received several awards and distinctions like the Order of Rio Branco in the Official rank in 1998 by the Government of Brazil and the International Award of Excellence from the University of New Mexico in 1999.

L. Howard Pollard (received the B.S.E.E and M.S.E.E. degrees from Utah State University, Logan, in 1971 and 1977, respectively. He received the Ph.D. degree from the University of Illinois, Urbana, in 1983.

He has worked for Utah State University, Reticon, and Lockheed Missiles and Space Company in different engineering capacities. He has been a member of the faculty of the Electrical and Computer Engineering Department of the University of New Mexico since 1983. His interests include digital design, microprocessors and microcontrollers, computer architecture, and hardware description languages. He is also involved with industrial projects building high-speed dedicated digital logic systems. He has been involved with the Ibero-American Science and Technology Education (ISTEC) since it was founded.

Chaouki T. Abdallah ((S'81–M'83–SM'95) received the Ph.D. degree in electrical engineering form the Georgia Institute of Technonlogy, Atlanta, in 1988.

Since then he has been with the Electrical and Computer Engineering department of the University of New Mexico, Albuquerque, where he is currently a full Professor. Since 2000, he has been the Director of the graduate program at the EECE department. He is one of the founding members of the Ibero-American Science and Technology Education (ISTEC) and has been involved in establishing the library linkage project within ISTEC. He is the coauthor of more than 150 refereed papers and three books.

Jorge Sanín (received the M.A. degree in international development policies from Duke University, Durham, NC.

He is currently working with the Organization of American States in Washington, DC as International Outreach Coordinator of the Inter-American Agency for Cooperation and Development (IACD). He is also the Vice-President of International Affairs for the Ibero-American Science and Education Consortium (ISTEC). He worked in Colombia for the National Planning Department as Head of the Division of Cooperation among Developing Countries.