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Golden Jubilee of the Faculty of Engineering of Peradeniya University

by a special correspondent

The Faculty of Engineering, University of Peradeniya has been at the fore front of Engineering Education in Sri Lanka for half a century and celebrates its completion of fifty years of outstanding service to Engineering Education with the Golden Jubilee Congress from 29th June 2000 to 01st July 2000, the final day being the day of its 50th anniversary of its official founding. It is a wonderful coincidence that the Jubilee Congress takes place in the year that marks the New Millennium, and at a time in which the whole world is reflecting on its past and making plans for the future.

Economic advancement

The Congress addresses various aspects of Engineering and Engineering Education in the country in a way which is most mindful of the contribution that engineers could make to the industrial development and economic advancement of Sri Lanka. Thus, the three-day congress is organized with an entire session of the opening day devoted to Engineering Education and an entire session of the final day to Infrastructure Development. Other seminars include research contributions by students and academics of the faculty and alumni who are at the cutting edge of technology in different parts of the world.

Among those addressing the plenary session on Engineering Education and Education for Engineering, chaired by Prof. J. C. V. Chinnappa, is a former Dean of the Faculty, Prof. C. L. C. Jayatilleke (Chairman, National Education Commission) who will talk on the development of general education to meet the needs of engineering training. Dr. T. A. Piyasiri, Mr. A. E. Z. Fernando and Mr. L. P. Jayasinghe will be addressing issues relating to technical, technological and industrial aspects of Engineering Education. Dr. R. Purasinghe will deal with issues concerning student assessment and continuing education. Proposed changes to the engineering curriculum in the new millennium will be presented by Prof. Nimal Ekanayake.

National needs

In this context it will be useful to note the following observation by Prof. C. L. V. Jayathilleke in his message to the Congress; *"The strongly examination driven nature of university course is perhaps the most significant carry over from colonial past. The other feature of having good mix of theory with practical is the indelible mark left by the founder Dean and many of his colleagues, most of them being former practicing Engineers. Those of us grew up under their tutelage were very strongly biased towards the practical side of Engineering. This perhaps why the Engineering profession of post independence Sri Lanka took the country on a significant growth trajectory.*

Both faculties of Engineering have failed to maintain the tradition and tempo of education that were started by the founders of Sri Lankan Engineering Education. Engineering Education must again re-associate itself with genuine national needs and priorities. In contemporary society Engineers and technologists cannot be passive bystanders. Every system and every undertaking needs ongoing improvement and innovation; and Engineers and technologists have a very significant contribution to make. What clouds their thinking and makes them less of a social force is the intense and soul destroying selfishness that seems to go along with their formal academic education." It is with a sprit of serious self-assessment and a critical review of its past that the Faculty of Engineering undertook to change over to a semester-based course-unit system nearly a decade ago. The implementation of the program was delayed by the consequences of the long spells of closure during the turbulent year of 1987 - 1989. The faculty has been coping with the backlog of students which it has effectively cleared by taking on an excessively large teaching load, keeping up to 6 batches of students in the faculty at a time for what is usually a 4 year course.

The proposed course unit system that is expected to come into existence within this year recognizes the lack of flexibility of the existing system that limits the introduction of new subject material, as the duration of courses is normally one academic year and the inability to assess the performance of students continuously during an academic year, under this system.

Infrastructure Development

The semester based course unit system is similar to that followed in the U.S. and is compatible with the decision in principle of the University of Peradeniya to change over to a semester based course unit system, to meet the changes to the advanced level program in high schools and to the university entrance requirements. In the new program, in the first year the students entering the faculty follow a common program that will bring them to a minimum required academic level to enable them to have the right background for the different disciplines of Engineering and get a fair idea about the Engineering Profession. Subsequently, they follow a specialized program of 3 year's duration, where they will accumulate a specified number of credits in order to graduate.

The courses are each of one semester duration and the new structure will allow less academically oriented students to complete the course without having to do advanced courses. Industrial training during inter-semester vacations will play a bigger role in providing opportunities for the students to gain valuable real life experience.

The Faculty, as always, has an open mind to criticism and suggestions from the public, industrial and professional sectors and will through the new system be able to respond even more positively to recommendations and suggestions of professionals. The plenary session on Infrastructure Development which falls on the day of the Golden Jubilee will be chaired by Mr. Conrad Tissera, Additional Secretary, The Ministry of Science and Technology, who will also talk on the role of the private sector and will be addressed by experts on different aspects of Infrastructure Development as detailed in the announcement in this newspaper on 26th June 2000. As pointed out by the chairman of the session in his message to the congress;

"Sri Lanka urgently needs investment capital to keep its economy moving forward at a high growth rate. The development objectives of the government can only be realized with rapid investment in critical areas of economic growths. High on the list of such "investment priorities" is the Physical Infrastructure Sector. The renewal of existing infrastructure facilities and providing the urgently needed additional infrastructure facilities that sustain and stimulate economic growth need urgent attention. Development of highways, generation of more power, development of the telecommunication system, improvements to the ports, airports and transportation systems, expansion of the water supply systems, and sewerage and waste water systems, construction of industrial estates, warehousing complexes, etc., fall into this priority category.

During the past two decades, a significant share of public sector investment was channelled to Infrastructure Development in Sri Lanka. This investment was mobilized mostly through Government's own resources and through multi-lateral and bilateral donor assistance to Government. The demand for expansion of infrastructure facilities in the country increases at a rate that these traditional investment sources cannot keep pace. It is therefore necessary to look for other innovative financing techniques for infrastructure development in Sri Lanka to supplement these efforts of Government. Investment in physical infrastructure is highly capital-intensive and does not normally produce quick returns. Continuing to finance such projects through bilateral and multi-lateral assistance by the Public Sector also results in increasing the Foreign Debt and long term Balance of Payment Problems.

Given this background, the challenge before the Engineering profession is to look at innovative financing techniques for Infrastructure Development in Sri Lanka and the models for public private partnerships in financing such projects. The deliberations at this congress, I am confident, will address all these issues. The outcome from these deliberations will be keenly awaited, and the government will greatly benefit from obtaining such recommendations for considerations."

It can therefore, be seen that Jubilee Congress is more than an important occasion for the faculty of Engineering and the University of Peradeniya. It is also one in which the faculty reassess its interests and determination to contribute to national development at its movement of greatest need.