

EDITORIAL

NEED FOR EXPERIMENTATION AND RESEARCH IN ENGINEERING EDUCATION

As this combined issue of Sept. 90 & Dec. 90 is presented to you (i.e. 13th & 14th issue of the Journal of Engineering Education) it will be appropriate that a review is taken of this activity of the Journal of Engineering Education so that guide lines can be drawn which will enable us to shape an educational system in a way that will cater to the needs of the industry, the society and the nation in a big way.

So far we have published 12 issues and we have been able to involve more than 75 authors who have written more than 130 articles, covering the entire spectrum of all aspects and problem of Engineering Education, today. Quite a few of these authors have written articles for the first time and have contributed, by now, more than one article for our Journal.

The articles published so far reflect the activities in the field of Engineering-Education-Seminars, workshops, Annual & International conferences. It is also seen that such activities are in abundances, as they should be. But what is noted is that in all these seminars and conferences, the participants put forth and discuss theories, methods and Techniques; tell us what should be done; but they do not tell us what is being done; the reason may be and is that very little is being done that can be reported. The stirring of minds is taking place but action oriented activities do not follow. It is time that we not merely Think, but put into action our ideas and thoughts, experiment with new ideas, prepare case studies, validate/modify the new techniques and share and exchange our experiences. Mere talk is not enough as it will lead us to no where. Action & experimentation is the need of the day. Every workshop, seminar and conference should inspire the participants to try new methods and teaching techniques and record the results; to make use of the modern methods advocated by the educational technology, to work for establishing liaison with industry in a systematic and planned way, to create an awareness and encourage the spirit of entrepreneurship amongst the students, to establish technology parks; to study, survey and take up community services and so on.

Every institution thus, should become a centre for Engineering Educational Research and should not function merely as a centre for Imparting Engineering Education. Every teacher should be not merely a scholar with abundance of knowledge in his own field but must be master of the techniques by which this store of knowledge can be transitted to the students at max efficiency, so that these students are trained to take up leadership in the field of Engineering and Industry and can accept the challenge of the highly competitive world market today.

In every Institute there should be one professor incharge of Engineering Education activities; at the same time, in every College Library there should be a seperate section on Engineering Education where all books on Engineering Education, current literature, all periodicals and proceedings of seminars and conferences should be made available. Special attention should be paid for provision of modern teaching aids and special efforts be made to persude teachers to use these freely in teaching. Even all this is not sufficient. An orientation course for Technical Teachers is a must and should be arranged to make the teachers aware of their obligations, duties & responsibilities that they are expected to discharge as Technical Teachers in Engineering College, Polytechnic & Other Institutes. Unless we take steps to implement these ideas and put them into action, we should not hope for any betterment in the field of Engineering Education. It is the responsibility of the planners and administrators at state and national level to pay their immediate attention to these aspects. But others at lower level. Principals and Heads of Departments need not wait & watch. They can initiate these activities, may be, in a small way at their own level. The financial implications are not insurmomtable. What is required is a vision and will to act. Let us hope this phase of thinking & talking will lead to the next phase of action & experimentation. It is only then we can hope that our Engineering. Institutions can play the effective role in the service of the Industry, the sciety & the nation.

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