

Bhaskar Ramamurthi



Bhaskar Ramamurthi has taken over as the Director of the Indian Institute of Technology (IIT) Madras recently. He holds MS and Ph D in electrical engineering and worked with AT&T Bell Labs before joining IIT Madras as faculty. Ramamurthi is a founding member of TeNeT. He has been involved in the study of low-cost IT solutions in the area of wireless technology and in the manufacture of wireless local loop technology. In this interview he talks about incorporating ideas from IT solutions in the telecom sector into other fields; his experience in bringing technologically driven products to the market; his ideas on indigenous technology creation and much more.

Is there an initiative within IIT for developing low-cost technology of this kind?

There is an increasing awareness in the IIT system as a whole, and also at IIT Madras among the faculty that you need

to develop some solutions that will have an impact on the common man.

I am clear that there need to be three types of research done in the IITs. One is work on basic engineering; second, research that will enable our industry to march ahead with new products, new processes, low cost, better manufacturing, etc. Third come solutions for pressing problems that affect people. These will impact the people more directly.

There are people working on low-cost solutions – decentralized energy, for example, decentralized solar energy which can be used in a village. People are working on decentralized power generation from high ash coal. But it takes more than one or two people working on it to solve major problems. It needs an orchestrated effort. We need that sensitivity right up to the policy-making level and right up to the final pitch which is made public. If this is done, the IIT system is capable of delivering good solutions in the next ten or fifteen years.

Technology creation has been centred in the West. How has that impacted our use of technology?

It is not like we can take what solutions the West has proposed and use it here. Their needs are different from ours. In the case of the cell phone, it just turned out that various developments that happened turned out to be a good solution for us. You can't expect that kind of fortuitous happening every time.

Fifteen years ago, things were different; today we are realizing that the electronic imports have become as large as petroleum imports, and we are bringing in a new policy. In the new National Electronic Product Manufacturing Policy, there is a clear understanding that you can't just import your way through trouble.

Is there a plan to incorporate studies of cost reduction and technology creation in the IITs?

We are not teaching much that has to do with a whole gamut of things that you have to do to bring a technology-based product to the market. Costing is only a part of it.

With policy changes and so on, there is a demographic mix of students in IITs. How do you view this?

The student population has gone up 50% in the last three years and probably 100% in the last ten years. We have in our mix, students from first-generation families of learners, wealthy families, upper middle class; we have people who want fulfillment other than money, and others, very much like the previous generation, who are happy if they get a good leg up in life and are not worried about what they do. The problem is like the elephant and the blind men. Each one of us has a statement about the students which could be true.

We want all 850 students we take every year to be all charged up. The problem is we can't try and understand each and every one of them, because the numbers are so large.

About 25% hits the ground running, and they are doing very well. We have created an Honours programme to keep them challenged as of a few years ago, which is currently being implemented. The challenge is to see what will make the other 75% tick – what interests them, and whether we are willing to allow them to do what interests them, and to what extent.

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