

NPTEL - helping bridge the gap

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That the quality of teaching depends on the qualified teaching faculty needs no elaboration. While several colleges have imposing buildings and state-of-the-art lab equipment to boast about, the appointment of inexperienced and undergraduate degree holders as teachers leaves a yawning gap between the desired level and the current level of expertise available among the faculty.

While quality teaching is available in reputed institutions like IITs, NITs or IISc, their 'underprivileged' counterparts in private and other government-aided engineering institutions in the country should not consider their study a bane.

It was in this backdrop that the Human Resources Development Ministry has designed 'National Programme on Technology Enhanced Learning' (NPTEL), a positive intervention on the lines of the Massachusetts Institute of Technology's Open Courseware (MIT-OCW). In the words of Minister of State for HRD D. Purandeswari, "NPTEL aims to fill this gap by reaching out quality inputs to the last student in the remotest village, thus strengthening the weakest link." The project involves both creation of academic content and extension of Internet connectivity.

NPTEL is a joint initiative by seven Indian Institutes of Technology (Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee) and Indian Institute of Science (IISc) for creation of content for 100 engineering and science subjects as web-based supplements and 100 complete video courses at forty hours of duration per course. This will be on the model curriculum suggested by All India Council for Technical Education (AICTE) and the syllabi of major affiliating universities.

The video content is available in MPEG4 format with a bit-rate of 512 kbps for streaming through the Internet and can be viewed at <http://www.youtube.com/iit>, while video lectures can be accessed free of cost through <http://nptel.iitm.ac.in>. The video content is also available in the form of three 500 GB SATA hard disks. With this, every student in the country can virtually become a 'product' of acclaimed institutions like IITs or IISc!

While the web content can be accessed free of charge, the video contents available in hard disks can be purchased by government funded/aided institutions for Rs. 15,000 and private institutions for Rs.1 lakh through a demand draft drawn in favour of 'The Registrar, IIT Madras'. However, any individual having broadband connectivity can download the lectures.

The project also helps professionals update their academic background, besides enhancing the knowledge level of teachers and lets them train the students in a better way. On the other hand, the industry, which always hunts for well-educated graduates with specific skill sets, has been roped in as NPTEL provides the business houses an opportunity to adapt one or more courses on a specific subject and offer the students better career opportunities.

Ties

NPTEL also envisages forging of strong ties with major academic initiatives worldwide such as MIT OCW, Commonwealth of Learning, British Open University, Australian Open Universities and the Digital Library for developing new technological tools for learning and dissemination, in order to benefit every student in the country.

A.D. RANGARAJAN

In Tirupati.