NPTEL

About NPTEL

The National Programme on Technology Enhanced Learning (NPTEL) was initiated by seven Indian Institutes of Technology (Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee) and the Indian Institute of Science, Bangalore. The core project is coordinated by IIT Madras.

Objectives

- Facilitate the competitiveness of Indian industry in the global markets by improving the quality and reach of engineering education
- Make high quality learning material available to students of engineering institutions across the country, free of cost

Highlights

- 875+ courses
- 230+ million Google visits
- 144+ million YouTube hits
- 18000+ hours of video
- 15000+ hours of text material

NPTEL Online Certification Courses

Need for NOC

Massive Open Online Course (MOOC) is essentially a process of teaching using pre-recorded lectures, resource video materials, lecture notes, assignments and quizzes which are usually online and provide the user, self-assessment at regular intervals during learning. The learning involves the simultaneous participation of teachers and a large number of students and is similar to a classroom and on a much larger scale, through the Internet. This methodology is well suited to the current generation of mobile-Twitter-Facebook-YouTube savvy students.

NOC – NPTEL Online Courses

- NPTEL began offering certification to students for participating in online courses in March 2014 through its new portal https://onlinecourses.nptel.ac.in/. The portal is

powered by Google India. This new effort has been termed NPTEL Online Certification or NOC, in short.

- Through an online portal, 8-12 week or full-semester online courses, typically on topics relevant to students, preferably in their final years of higher education along with basic core courses in sciences and humanities and relevant exposure to tools and technologies are currently being offered by NPTEL.
- The enrolment and learning from these courses involve no cost.
- An in-person, proctored certification exam will be conducted and a certificate is provided through the participating institutions and industry, when applicable.
- This project uses both fresh learning materials and existing NPTEL contents already developed for more than 860 courses thereby reducing reinvention of the wheel for online education.
- The proctored exam provides a viable means of delivering authentic certification following online education.

Who will benefit?

Students - by receiving quality instruction and education in select topics and skills, they can improve their employability.

Faculty may utilize this opportunity to connect with a wide spectrum of student community.

Industry - Online learning can not only train the workers of the future, it can also provide a career path for someone employed who may learn new skills.

Incidental benefits

- Low cost for the student since learning material is free of cost.
- Less pressure on the student to keep up with other students in the class.
- Flexibility for the student as he/she can prioritize his/her time and work at one's own pace.
- Variety of programs and courses – From engineering to music to film appreciation. Students will be able to choose from a wide variety of online courses. They can try pursuing learning in areas other than their expertise.
- Access to faculty – Student will have access to faculty via email, discussion forum and other online media. He/she will not be intimidated to ask questions unlike in a traditional classroom setting.
- Networking Opportunities – Students can make connections with their peers no matter where they are located. This will provide insight and different perspectives on the same topic.

- Location – Online Courses will give a student in remote village an opportunity to take a class at a college or university that he/she may not have realistic access to, geographically.

Potential value of certification

1. Industry recognition – Talks are on-going to have corporates recognize NPTEL Online Certification as part of their recruitment process.
    - Recognize NPTEL Online Certificate (Elite) in recruitment
    - Advertise job/internship positions on nptel.ac.in/noc
2. University credit - NPTEL Online Elective courses for credit with college faculty as mentors

Highlights

https://onlinecourses.nptel.ac.in - The portal was opened in March 2014.

- Registered users: 1,80,000+
- Course enrolments: 2,00,000+
- Courses completed: 57 (as of July 2015)
- Certificates: 7000+
- New courses open for enrolment: 24
- Faculty: 50+ (IITM, IITK, CMI, IMSc)
- Top enrolment: 53807 for Programming, Data Structures and Algorithms

Portals
https://onlinecourses.nptel.ac.in
http://nptel.ac.in/noc
http://nptel.ac.in/studycentre

Going Forward

Integration with colleges > Starting NPTEL study centres at colleges; identifying Special Point of Contact (SPOC); Credit Transfer through Collaborative Course Delivery

Integration with universities > Allow students to take an NPTEL Online Elective for credit

Integration with industry > Recognize NPTEL Online Certificate (Elite) in recruitment; Advertise job/internship positions on nptel.ac.in/noc

Proposal

In the context of the background given above, alumni are invited to sponsor for the following content creation and skill building, thereby enhancing quality of education in India.

1. Creation of new courses

The cost involved in creating the contents of a course and running it = INR 6 lakhs

- INR 2.5 lakhs as honorarium for the faculty
- INR 1 lakh as honorarium for the TAs
- INR 2.5 lakhs for production + admin costs

2. Aid for financially needy students to register for the certification exams

The exam registration fee for programming courses / candidate = INR 1250

The exam registration fee for non-programming courses / candidate = INR 1000

3. Transcription/translation of the courses

Transcription into English for a 20 hour course = INR 50,000

Translation of the English transcript into one local language for a 20hr course = INR 2 lakhs (approximately)

Contact

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