

Synchronous Distance Education at IIT Bombay

Kannan M. Moudgalya
Head

Centre for Distance Engineering Education Programme

Indian Institute of Technology, Bombay

<http://www.cdeep.iitb.ac.in>

head.cdeep@iitb.ac.in

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 - ▶ Working professionals
- ▶ CDEEP has been transmitting live IIT Bombay's courses for close to a decade

Live Transmission Strategies

- ▶ Until December 2007
 - ▶ Purchased bandwidth, at high prices
 - ▶ Transmission through satellite, for a fee
 - ▶ Only a few courses (mainly IT) were popular
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- ▶ From January 2008
 - ▶ Bandwidth is free, given by Indian Space Research Organisation (ISRO)
 - ▶ In return, IIT agreed to transmit courses for free
 - ▶ Extended this concept to the webcast mode also - these courses are also transmitted free - no need to even register

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 - ▶ Interaction is possible through the free learning management system, Moodle

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- ▶ Value added services, at a nominal cost

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- ▶ At present money can be returned to the college - through funding from the National Mission on Education

Will our Transmission Make College Teachers Redundant?

- ▶ No, the college teachers will become even more important, to be explained next

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- ▶ COEP faculty found this to be more demanding than their normal course load!

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 - ▶ As an exception, we have just introduced postgraduate diploma, through distance education

- ▶ Group of IIT's regular courses can be used. Examples
 - ▶ Database systems
 - ▶ Embedded systems
 - ▶ Compilers
 - ▶ Operating Systems
 - ▶ VLSI design
 - ▶ Power plant engineering
- A lot of other possibilities exist

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equivalent to non-thesis master's degree (US parlance)
- ▶ Part time - could take up to four years to complete - keeping in mind the work load of the professionals

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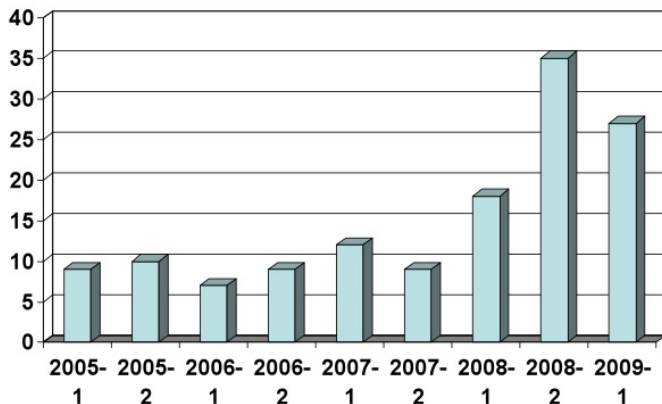
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- ▶ We have a total of 100 video courses (IIT Bombay has a total of 1,000 courses)

No. of courses transmitted



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- ▶ Teaching methodology is as important as content itself
- ▶ Archival of courses of good instructors before they retire

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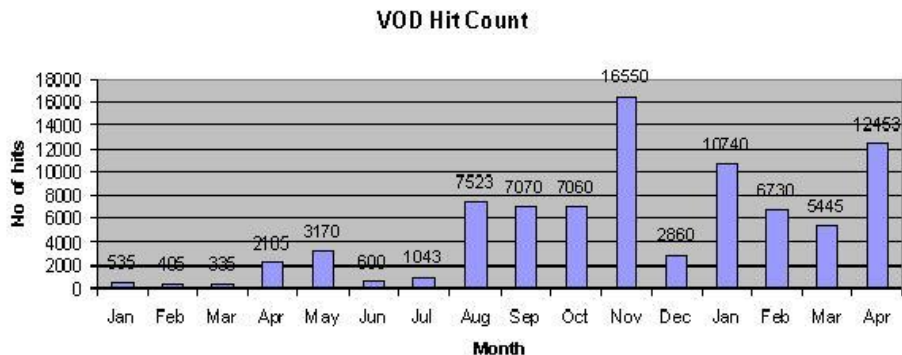
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- ▶ We are also grappling with the issue of feedback

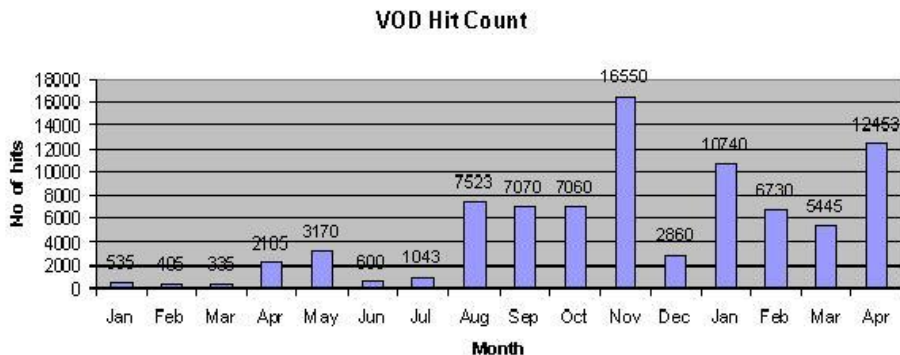
IIT Student Perspective of our Distance Education

- ▶ IIT Bombay students like CDEEP courses



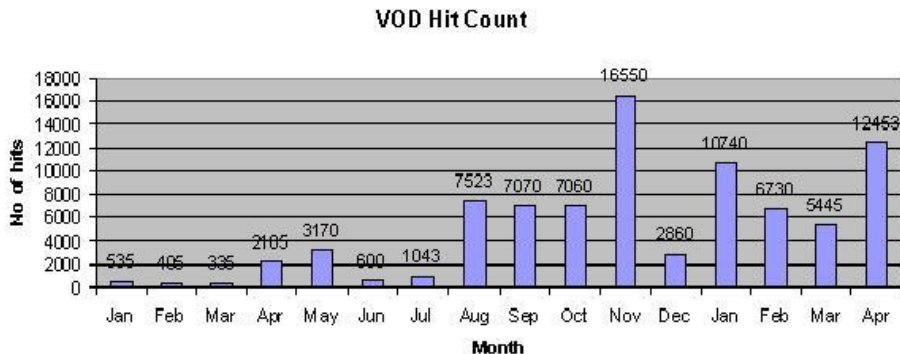
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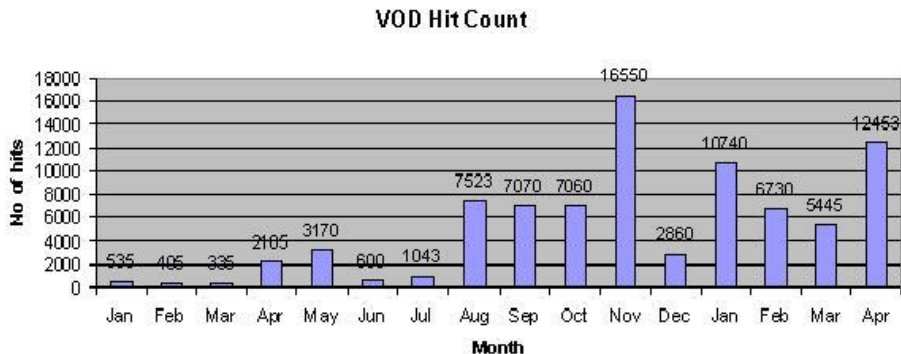
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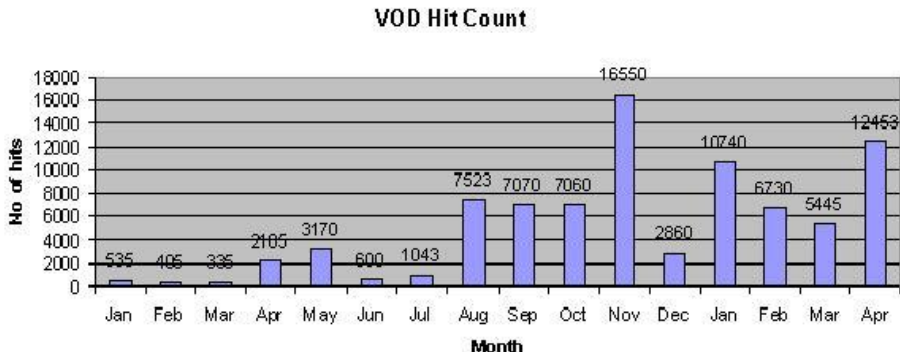
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 - ▶ as the lecture is recorded on camera, instructors come to the class better prepared
 - ▶ Good facilities, such as, VOD and LMS are available for courses delivered through CDEEP



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- ▶ Students are increasingly demanding that more courses be delivered through CDEEP - this is how we have succeeded in getting a large number of faculty members agreeing to deliver their courses through CDEEP

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- ▶ Instructors usually raise the quality of their courses when offered through CDEEP - so, better courses

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- ▶ Use of copyrighted material poses a problem in some cases - a lot of work may be required to solve it

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- ▶ Discussing with agencies, such as, IGNOU and IEEE for certification

- ▶ Propose to launch video on demand service for outsiders through NKN

Immediate Plans

- ▶ Propose to launch video on demand service for outsiders through NKN
- ▶ Plan to use A-view and K-point for live interaction with outsiders through NKN

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- ▶ Video courses are produced in both - support services are common

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- ▶ Nevertheless, substantial amount for India

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10. Development of Certification & Testing Modules for Virtual
Technological Universities & creation of VTU, multi media
research and international programmes

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Content generation: Line items - continued

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Necessary conditions for a project to be funded by this mission:

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- ▶ It should belong to one of the 18 line items mentioned earlier

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- ▶ National programme on technology enhanced learning (NPTEL)

Synchronous Education Effort

- ▶ IIT Bombay leads this mission

Synchronous Education Effort

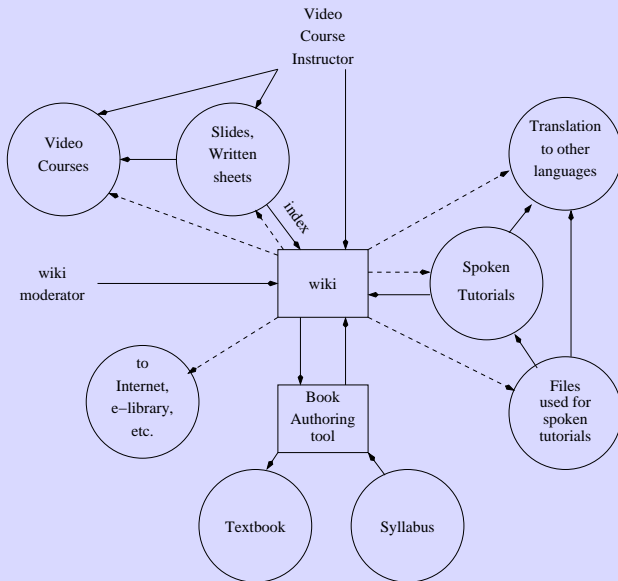
- ▶ IIT Bombay leads this mission
- ▶ Partners are
 - ▶ Amrita university
 - ▶ Dayalbagh Educational Institute, a deemed university
 - ▶ IIIT Allahabad

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Immediate Plans: Converting IIT Bombay's Video Courses



Will work for other video courses also - e.g. NPTEL

Long Term Plans for CDEEP

- ▶ To become an academic entity
 - ▶ Pedagogy
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- ▶ Help build the academic institutions in India

- ▶ The excellent educational methodology created by IITs should be used to improve the level of education in the country

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- ▶ Experience learnt through distance education can be used to build the education grid and remote learning

Conclusions - Continued

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- ▶ India will become a hub of education for the entire world
- ▶ This will be a growth engine for Indian industry
- ▶ Higher quality of engineers will also result in better inputs for R&D institutions, improving the levels of research as well
- ▶ Most importantly, our children will have better childhood

Where to get more information about CDEEP?

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- ▶ <http://www.cdeep.iitb.ac.in/reachout> has e-versions of CDEEP's newsletter, Reach Out

Thank you