

File No.NMEICT(MS)/PAB/24
Government of India
Ministry of Human Resource Development
Department of Higher Education

31st October, 2012

To,

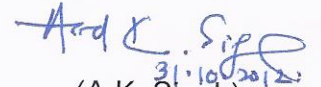
All Members of the Project Approval Board
of National Mission on Education through Information
and Communication Technology

**Sub:Minutes of 24th Meeting of the Project Approval Board of National Mission
on Education through Information and Communication Technology held
on 4th October, 2012 at 4.00 p.m.**

Sir/Madam,

Enclosed please find Minutes of the 24th Meeting of the Project Approval Board of
National Mission on Education through Information and Communication Technology held
on 4th October, 2012 at 4.00 p.m. at Shastri Bhawan, New Delhi under the Chairmanship of
Secretary (HE), Ministry of Human Resource Development, Government of India, New-
Delhi for necessary action.

Yours faithfully,


31.10.2012

(A.K. Singh)
Director (ICT) &
Nodal Officer (NMEICT)
Tel: 011-23384276

Copy to:

1. PSO to Secretary (HE)
2. PS to AS(TEL)
3. PS to JS&FA
4. US(TEL)

MINUTES OF THE 24th MEETING OF PROJECT APPROVAL BOARD OF NATIONAL MISSION ON EDUCATION THROUGH INFORMATION AND COMMUNICATION TECHNOLOGY (NMEICT) HELD ON 4TH OCTOBER 2012 AT 4.00 P.M. IN CONFERENCE ROOM (FIRST FLOOR), CSL LIBRARY BUILDING, SHASTRI BHAVAN, DR.RAJENDRA PRASAD ROAD, NEW DELHI.

The 24th Meeting of the Empowered Committee of Experts (Project Approval Board) (PAB) of National Mission on Education through Information and Communication Technology (NMEICT) was held on 04th October, 2012 at 4.00 p.m. in Conference Room, Central Secretariat Library (CSL) Building, Shastri Bhawan, New Delhi under the Chairmanship of Secretary, Department of Higher Education, Ministry of HRD.

The list of participants is at **Annexure**.

Additional Secretary (TEL), Department of Higher Education, Ministry of HRD & Mission Director (NMEICT) welcomed all the participants. Thereafter agenda items were discussed and following decisions were taken:

Item No.1

Minutes of the 23rd Meeting of the Project Approval Board

Additional Secretary (TEL) and Mission Director (NMEICT) & Member Secretary, PAB, briefed the members and since no suggestions or amendments on the Minutes of the 23rd Meeting of the PAB were received, the Minutes of the 23rd Meeting of the Project Approval Board held on 28th February, 2012 were confirmed.

Item No.2

Action Taken Report" on the Minutes of the 23rd Meeting of the PAB

Additional Secretary (TEL) and Mission Director (NMEICT) & Member Secretary requested all the members to give their observation and comments on the "Action Taken Report" on the Minutes of the 23rd Meeting of the Project Approval Board held on 28th

February, 2012. Shri R.P. Agrawal drew the attention towards popularising NMEICT in general and NPTEL in particular and emphasised the need to make available NPTEL material to students from as many sources as possible. Thereafter the said "Action Taken Report" was noted.

Item No.3

Approval of Projects recommended by the Standing Committee

- 3.1. E-content generation in 17 subjects in Electronics and Communication using Learning-by-doing (or 'butterfly') model by Prof. Sandhya Kode and Prof. Kannan Srinathan, IIIT Hyderabad.**

The item was deferred for the next meeting.

- 3.2. E-content generation for PG Programme in Environmental Science Management", PI: Dr. Suresh Jain, Inst: TERI University**

The item was deferred for the next meeting.

- 3.3. RTP Based Wireless H.264 Scalable Video Streaming for High Speed E-content Delivery over WLAN, PI: Prof. Aditya K. Jagannatham
Inst: IIT Kanpur, Control No.ACO29031212526**

AS (TEL) & mission Director briefed the PAB about the project and mentioned that codecs for fixed bit rate streaming may not suit plethora of devices having different bandwidth. Hence, a codec which could adjust the bit rate of the stream dynamically, as per requirement of the access device would give better performance. With this in mind, PAB accepted recommendations of the Standing Committee and approved the project for an estimated amount of Rs. 15 lacs.

3.4. Developing suitable Pedagogical methods for various classes, Intellectual Calibers and Research in e-learning, PI: Prof. Anup K Ray, Anchor Institution: IIT Kharagpur, Control No.: ARE 04061212597

The representative from IIT Kharagpur made a detailed presentation on the Project. As the PAB raised few issues and they need to be addressed by the PI, the item was deferred for the next meeting by the PAB.

3.5. NPTEL, PI: Mangala Sunder, Inst: Coordinated by IITM

Criticality had been shown by the IIT madras regarding lac of funds for procuring studio equipments under NPTEL. PAB was informed that Rs. 10 crore out of the balance Rs. 19 crore had been released in September, 2012.

This was noted by the PAB.

3.6. Title: Talk to a Teacher (also known as Teachers empowerment, students empowerment, and integration of tools for empowerment – synchronous delivery) - Phase 2, PI: Kannan Moudgalya, D. B. Phatak and Somnath Sengupta Inst.: IIT Bombay and IIT Kharagpur

Prof. D.B. Phatak and Prof. Kannan Moudgalya from IIT Bombay made a detailed presentation on the "Talk to a Teacher Project". PAB was apprized that "Talk to a Teacher" is a massive programme, involving training of 1,50,000 teachers and the establishment of Remote Centers and Hubs. Fifteen (15) training programs for 10,000 teachers each will be conducted under the project and 1,50,000 teachers will be trained in 3 years.

PAB deliberated on this proposal in detail. Questions were asked about the usage of the infrastructure created under this project (i.e. the Remote Centers and Hubs). It was clarified by the PI that the infrastructure would be available not only to this project but could also be used for other multi-location training programs being conducted by the Ministry of HRD.

After detailed deliberations, PAB approved the proposal subject to the financials being re-verified. Chairman PAB suggested that since it is a large project, Prof. Phatak, the PI of the project, AS (TEL) & Mission Director and FA may go through the proposal in detail and examine whether budget is as per set norms or not. Outcome of the discussions and the figures may be put in the next PAB meeting.

The said meeting was held on 9.10.2012 at 11:00 A.M. in the Ministry. The minutes of the meeting with FA as well as the revised proposal is attached, which arrives at a total financial outlay of Rs. 192 crore for a 3 year project period wherein 500 remote centres, 10 nodal centres apart from the central hub would get established and 1,50,000 technical teachers would get trained for 10 working days each. The centres would be available for other institutions trying to offer teacher training programmes in other disciplines, following the methodology of 10,000 teachers training programme developed by IIT Bombay under NMEICT. This outlay includes Rs. 11.57 crore for activities related to Spoken Tutorials wherein 500 original tutorials and 5000 dubbed tutorials would be created and 1,50,000 students would undergo training through self workshops on any topic of their choice available under Spoken Tutorials.

- 3.7. Title: E-Resources for Geo-Informatics Applications, Education and Training, PI: Head, CSRE, IIT Bombay with several Co-PIs, Inst: IIT Bombay representing 12 institutions, Control no: HE-11081011220**

The item was deferred for the next meeting.

Item No.4

Request for extending VPNoBB to Study Centers of Dr. B. R. Ambedkar Open University, Hyderabad

Additional Secretary (TEL) & Mission Director (NMEICT) and Member Secretary informed that the kind of requests for extending VPNoBB to Study Centers of Dr. B.R. Ambedkar Open University, Hyderabad had been coming from all Open Universities. He mentioned that we are committed to provide connectivity upto 10 mbps to all the

Colleges. However, Study Centers are not covered under the definition of college. He invited comments from all the participants on this issue of providing extension to the Open Universities.

Shri R. P. Agrawal said that in case of certain Universities there are more than 8,000 Study Centers and in case a decision is taken to provide connectivity to them, it should be at subsidized rates.

While Regional Centers of state open universities are very few in numbers, one of the members opined that Study Centers are functioning on the line of franchise and not yielding satisfactory results.

After deliberation, it was decided that the Regional Centres be considered for providing connectivity and in the first phase upto 100 Study Centres with student enrolment of 5000 or more of state open universities should be considered. It was suggested that we should conduct a study and based on its report further decision to provide connectivity may be taken.

Item No.5

Issues related with BSNL/MTNL

AS (TEL) informed that he has been told that out of 32000 colleges in India, 8000 or 9000 colleges do not have computers. He suggested that such colleges should be given one Aakash each with one VPNoBB connectivity. BSNL intimated that all such institutions with no computer are non-technical colleges. One of the PAB members suggested that UGC should write to universities that one of the conditions for affiliation to colleges should include proper computer lab in each college. PAB after detailed deliberation decided that to sensitize such colleges, initially one Aakash with one connection should be given and if the institutes start making better use of it, then 5 more Aakash tablets can be given and if these are also effectively used, further 5 more Aakash tablets shall be offered to such colleges. Thereafter BSNL was asked to give report of connectivity to colleges and utilization of VPN bandwidth. BSNL intimated that mostly VPN is being used for their internal communication. Some universities like JNTU are sending live information. BSNL further intimated that once LAN is placed in the university then further analysis on its usage is possible, but individually it is not possible

to monitor individual traffic of the colleges. PAB suggested that 174 universities affiliating the colleges should be asked to improve the utilization of VPN connectivity. It was told that Mumbai University has started utilising connectivity with 600 affiliated colleges and at the same time some 5-6 universities are also having better utilisation on connectivity. Thereafter, BSNL/MTNL appraised the connectivity status of university/colleges to PAB.

It was agreed that colleges not having any computer should be provided Aakash tablet with at least one broadband connectivity.

Item No.6

Status of some of the projects already awarded :

This item was placed in the 23rd PAB and it was deferred for the next meeting.

6.1 Pilot project namely, Content Creation (Non-technical) e-content Creation in the areas of Economics, Mathematics, Commerce, History, Zoology and Botany, University of Delhi

The members were informed that Pilot project namely, Content Creation (non-technical) e-content, in the areas of Economics, Mathematics, Commerce, History, Zoology and Botany was awarded to University of Delhi. For this project an amount of Rs.1.00 Crore was also released to University of Delhi vide sanction letter dated 31.3.2009. The Institute of Life Long Learning (ILLL) was earlier executing the project on behalf of Delhi University.

Since Institute of Life Long Learning (ILLL) has not completed the project, MHRD has written to VC, Delhi University to refund the money but the same has not been responded to as yet.

The above was noted by the PAB.

6.2. Projects awarded to IIM-Ahmedabad

The following two projects were awarded to IIM-Ahmedabad and the status is given below:

6.2.1. Proof of Concept Exercise for Better Planning of e-learning Programme – IIM- Ahmadabad

6.2.2. Awareness Building and Publicity Strategy Formulation

AS(TEL) apprised the PAB that this project had been completed, however, the expenditure incurred was more than the amount released as the first installment (Rs. 5 lac). IIM Ahmedabad, instead of asking for the 2nd installment of the approved funds, adjusted the expenditure (another Rs. 5 lac) from the funds released for Awareness building and publicity strategy formulation project. AS(TEL) also mentioned that IIM Ahmedabad was not inclined to move ahead on this project without a provision of Institute overhead. Ultimately, the project was taken over by the Mission Secretariat and IIM Ahmedabad was asked to refund the money released to them for this project. They returned the money after adjusting the balance expenditure incurred on the first project, as mentioned above.

The above was noted by the PAB.

6.3. Content Generation for Undergraduate Courses In Agricultural Entomology –CSK Himachal Pradesh

The PAB members were informed that CSK, Himachal Pradesh has, through a recent Fax, communicated to the Chairman, PAB that they will now complete the project in time.

Item No.7

Future Roadmap of NMEICT - Continuation in XII Plan Period

AS (TEL) and Mission Director (NMEICT) apprised the PAB that in the Apex Committee meeting of NMEICT, the Advisor (Planning Commission) had informed that the Mission will continue in the XII Plan also.

The above was noted by the PAB.

Item No.8

Strategy for Popularization of NMEICT

AS (TEL) and Mission Director (NMEICT) informed the members that this issue had been discussed with Chairman PAB and it is proposed to discuss with UNESCO if they would like to participate in the process of popularizing NMEICT. PAB members felt that rather than have just a Logo competition, it would be best to have a total holistic promotion and advocacy campaign for NMEICT

Additional Secretary (TEL) & Mission Director (NMEICT) assured the members that the Mission will act on these directions and will move ahead.

Item No.9

Approval for sitting fee to Members of DTH Committee

It was apprized that Prof. S.V. Raghavan, Scientific Secretary, Office of the Principal Scientific Adviser to the Government of India chairs the DTH Committee constituted by the PAB regularly.

The DTH Committee is a Committee of Domain Experts, at par with Standing Committee of NMEICT. Standing Committee members are paid a sitting fee of Rs.1000/- per meeting. The Education Secretary (HE) in the capacity as PAB Chairman has kindly approved a proposal for payment of Rs.1000/- as sitting fee to the Members of the DTH Committee and DTH Expert Committee also for each of the meetings in the past. Ratification of this decision of Chairman, PAB was sought.

The PAB ratified the decision for payment of Rs.1000/- as sitting fee to the Members of the DTH Committee and DTH Expert Committee for each of the meetings held in the past and approves payment of sitting fee of Rs.1000/- for each of the subsequent meetings in future also.

Item No.10

Virtual Lab, IIT Delhi - Approval of extension upto 31st March, 2013

AS (TEL) and Mission Director (NMEICT) informed the PAB that IIT Delhi as the coordinating institute for the Virtual Labs project had put in a request for extension of the project up to March 31st 2013. Currently the project is set to finish on 31st December 2012. Secretary (HE) and Chairman PAB said this was an important project and its usage must be encouraged as it was an important project.

The above was noted by the PAB and the Virtual Labs project was granted an extension till March 31st, 2013 subject to PRSG recommendation

Item No.11

Budget Estimates for 2012-13 for TSG/Mission Secretariat of NMEICT

The PAB members were informed that the Budget proposed on this for the year 2012-13 for the Mission Secretariat is well within the overall ceiling of 1% of the total outlay fixed for the project. It was also informed that funds on this are released to EdCIL on actual expenditure basis.

The PAB approved overall budget expenditure of up to Rs.3.19 crore for the Mission Secretariat for the year 2012-13 as per budget estimates provided.

Item No.12

Representation of Mr. Sushil Prakash, Senior Consultant, NMEICT.

Additional Secretary (TEL) & Mission Director (NMEICT) and Member Secretary informed the members that at present Senior Consults in NMEICT are paid a Consultancy fee of Rs.75,000/- p.m. and the pension amount received by two Senior Consultants is deducted from their Consultancy Fee. Further one of the Senior Consultant (among the two) working under NMEICT namely, Shri Sushil Prakash belongs to 1976 batch of Indian Telecom Services and had worked with the Department of Telecommunications (DOT), Government of India from 16th August 1976 to 31st March 1991.

Shri Sushil Prakash had also worked with Bank of America from February 1, 1997 to April 3, 2009. Shri Sushil Prakash had last worked with TATA Tele Services Limited from 15.5.2009 to 30.12.2011, wherein for the month of November, 2011, he had drawn net average salary of approximately of Rs.4.5 Lakhs per month.

Presently, from Government of India, Mr. Sushil Prakash is drawing a total of Rs. 11,222/- p.m. as pension and DA on pension. His Last Pay drawn plus DA admissible on last pay drawn is only Rs.7000/- p.m. (for having served Govt., of India from 16th August 1976 to 31st March 1991). Thus as per norms Mr Sushil Prakash can be offered contractual appointment on a remuneration of Rs.75,000/- p.m. subject to the condition that the remuneration and pension plus DA admissible on pension should not exceed his last pay drawn plus DA admissible on last pay drawn. Thus the admissible remuneration of Mr Sushil Prakash, Senior Consultant, NMEICT **results to be nil rather negative.**

Mr. Sushil Prakash has joined NMEICT w.e.f. January 2, 2012.

The anomaly caused by linking pension with the Consultancy Fee was deliberated in depth by the members. The PAB recommends the pension being presently deducted from the Consultancy Fee of all the Consultants be delinked from the issue of payment of their Consultancy Fee, from the date of their joining NMEICT and the pension amount need not be deducted from the Consultancy Fee of the Consultants, in NMEICT.

This PAB recommends to EdCIL for their Board's approval on above, since all the Consultants have been recruited through EdCIL.

Item No.13

Consideration of Sitting Fee to Members of Project Reviewing and Supervising Group (PRSG) under NMEICT

After deliberations, PAB approved payment of sitting fee of Rs. 1000/- to Members of Project Reviewing and Supervising Group (PRSG) under NMEICT for their participation in meetings, at par with the sitting fee of Standing Committee members.

Item No.14

Space for DTH Up linking and NMEICT Office at JNU

Additional Secretary (TEL) & Mission Director (NMEICT) and Member Secretary apprised the members that the MHRD has been allocated two satellite transponders by ISRO, and we do not have space, to house DTH teleport and the NME-ICT Mission Secretariat office. In this regard Education Secretary (HE) MHRD on June 1, 2012, wrote a letter to VC, JNU and subsequently had a meeting with him. Further MHRD team headed by Additional Secretary [TEL] visited JNU campus to look for a suitable place.

The MHRD team in consultation with designated JNU Officials, and based on technical and other criteria, selected a building of SCRS / School of Information Technology, presently being built by the JNU in its Campus. The building has been planned to accommodate ground plus three floors including a basement. The building has plinth area of about 2000 sm. It was decided that the three floors (First, second and third floor) in the building with each having plinth area of 2000 square meters can be made available to the MHRD, for a mutually agreed period, on payment basis.

The Issue was reviewed by the DTH Committee, during its 7th meeting held on September 26, 2012.

The PAB based on the DTH Committee recommendations, approved a sanction of Rs.13.00 Crores to be paid to JNU for civil constructions of three floors and further Rs.6.5 Crores (on account of AC, Electricity etc) to be paid on completion of Civil work. The constructed three floors shall accommodate DTH Activities and NMEICT office space for a period of 5+5 years period, which can further be renewed on mutual consent basis. The PAB recommended that a detailed financial proposal on this be sought from JNU and terms and conditions of MOU be finalised mutually.

The PAB further suggested that the JNU may also be requested to take a leading role in the management and content generation of DTH channels for which the PAB on the recommendations of DTH Committee has agreed to set up to 10 Teaching Ends at different Schools in JNU and shall also be provided recurring and Non-Recurring financial and technical assistance for establishing Education Multimedia Centres and

Digital production set up. The JNU in turn should provide all the educational content produced from these facilities for DTH and NMEICT use. However a detailed project proposal shall be prepared by a joint working group of experts on this from JNU and NMEICT as per the terms and conditions of the MoU to be signed between JNU and MHRD.

PAB approved the agenda item.

Item No.15

Revision of Consultancy Fees on Contract Renewal of NME-ICT Consultants.

Additional Secretary (TEL) & Mission Director (NMEICT) and Member Secretary informed the members that presently, all levels of NMEICT consultants are getting a fixed and consolidated Consultancy Fee (with all inclusive), which is decided at the time of initial engagement of these people and it is continued at the same rate, on their contract renewal. All Senior consultants with the NMEICT are presently on renewed contract, at the same rate of consulting fees, as fixed on their initial engagement. AS(TEL) apprised the members that in case of contractual appointments under SSA, Mid Day Meal, NLMA and other schemes under MHRD, the Consultants are given consultancy Fee in a 'Range', and therefore annual raise is possible, while under NMEICT; the Senior Consultants are having fixed consultancy Fee.

The matter was deliberated in depth and the PAB recommended that Senior Consultants working in NMEICT be provided enhancement in their Consultancy Fee, based on their performance review as under, starting from their last contract renewal, i.e., April 1, 2012

S.No.	Category	Present Consolidated Fee	Proposed Consolidated Fee
1	Senior Consultant	Up to Rs.75000/-	Rs.60,000 - 90,000

This PAB recommends to EdCIL for their Board approval on above, since all the Senior Consultants have been recruited through EdCIL.

Item No.16

1 Gbps connection for Shastri Bhawan, New Delhi

In view of higher requirement of bandwidth for telepresence kind of video conferencing with the Universities, it was informed to PAB that a request shall be made to NIC to enhance connectivity to 1 Gbps for Shastri Bhawan. In case NIC will not be able provide this facility, the connectivity shall then be funded through NMEICT. PAB approved providing of 1 Gbps connection for Shastri Bhawan out of the funds of NMEICT, in case NIC / NKN did not provide this bandwidth.

However, Shri R.S. Mani from NIC who was present in the meeting assured the members that within a week's time, the 1 Gbps connections for Shastri Bhawan, New Delhi will be provided.

Other observations of PAB

- Chairman, PAB was emphatic that the Standing Committee should provide their recommendations in clear terms and spell out details on deliverables, time-frame and cost breakup, while recommending new proposals. Chairman, PAB also stressed that the composition of the Standing Committee should be broad-based while reviewing and recommending the new proposals. There should be broad guidelines to be approved by PAB for constituting Standing Committee in its next meeting so that there is more transparency in the system.
- Mr. R.P. Agrawal mentioned that lot of good work has been physically done in projects under NMEICT, which should reach the students and academic faculty. He further informed that NPTEL content is being accessed by only about 700-800 engineering colleges out of 4000 colleges/institutions in the country. Strong need was felt on ensuring that the benefits of this whole exercise of providing connectivity & content should reach to a large number of students/aspirants of colleges/institutions as much as possible. It was further stressed upon that the contents should be made available to the students and academic faculty in the form of DVDs/ VCDs at the cost of raw DVD/VCD, packaging & its transfer charges and with some incidentals only and the students and teachers should be

informed through announcements/advertisements where such material shall be available and at what cost.

- Chairman, PAB stressed that there is need to publicize the material through the electronic media in a professional manner. It was also decided to explore the possibility of producing an advertisement in the form of advertisement/ movie, etc through UNESCO, similar to what is being done for SSA by UNICEF.
- Chairman, PAB further stressed that in the agenda certain things like deliverables, time frame; especially break up of the cost etc should come up front. Screening (Standing) Committee should clearly furnish its recommendations to PAB. Recommendations should be spelt out clearly by the Standing Committee.

AS(TEL) & Mission Director told that on 9.10.2012, format can also be seen and prescribed.

- Chairman, PAB instructed that in future agenda papers should be circulated to members at least 5 days in advance.
- Chairman, PAB emphasized that in the next meeting, PAB should be provided with the list of such institutions to which project was sanctioned and the progress is slow. Those projects should be highlighted and effort should be made to complete the project. He further emphasized upon the appropriate use of funds which the Government of India is sanctioning for the projects
- Director, IITM through Skype briefed the Members that one of the suggestions made by the Empowered Committee for implementing the 'Kakodkar Committee Report' is to carry out the programme for Engineering College Teachers by enthusing students & teachers to obtain M Tech Degree through Live & Online Courses conducted by IITs. Typically between 4 to 7 PM lectures will be delivered through ICT mode and the registered students/teachers during summer vacations can visit IITs for the laboratory part and can latter take up the exams for successful completion of the course.

- On query of proper utilization of funds and proper CAG audit, Additional Secretary (TEL) & Mission Director (NMEICT) informed that some of the private institutions had initially got 1st or 2nd installment of the funds directly, however, their 3rd installment and beyond have been routed through respective IIT so as to ensure proper usage and audit of funds.
- It was felt that on repeated request from institutions, NMEICT should provide upto 5% overhead charges on the project sanctioned to such Institutions in the 12th Plans

The meeting ended with a Vote of Thanks to the Chair.

Minutes of the meeting

To carry out a detailed evaluation of the proposal and funding requirements for the Phase II proposal for Talk to a Teacher Program from IIT Bombay and IIT Kharagpur, a meeting was held on 9th October 2012 in the chambers of Shri N K Sinha, Additional Secretary and Mission Director NME-ICT. Mrs Mittal, JS and FA, along with Shri Alex Thomas, and Shri Pradeep Varma, attended the meeting. Prof Deepak B Phatak was available to offer explanations and clarifications on various aspects of the proposal.

At the outset, Shri Sinha explained the general situation prevailing in the country as regards training of teachers. He observed that the traditional mechanisms of training was through conducting two-week training workshops for 35 teachers at a time. This has been done over the years through AICTE and ISTE workshops. This approach will not achieve the training requirement of teachers in higher education, which already number more than 8,00,00. In the phase I of this project, IIT Bombay had proposed to use ICT to scale up using "Train 1000 Teachers" scheme, to train over 12000 teachers by conducting 12 workshops, each for 1000 teachers. They have successfully completed the project, and have exceeded the delivery targets. IIT Bombay has now proposed to further scale up this training program using ICT, to train 10,000 teachers at a time. The proposed project addresses the urgent need to get faculty trained in large numbers, but it is necessary to examine the methodology proposed as well as the details of funding required.

Some general questions were first raised. These related to the large funding request for the project, and whether such large funds are justified? Whether funds would be available? If allocated to this project, whether other important activities will suffer? Should this project not be examined by a committee of experts?

Shri Sinha observed that Rs 200 Crores were already allocated in 11th plan for teachers training, out of which only Rs 80 Crores were spent. He mentioned that the 12th plan is going to establish an independent mission for training teachers at all levels for which a very large provision is expected. This training activity has adequate provision.

He observed that the expenditure for this project will be made from the funds already earmarked for this activity. In the first year, only 30% of the budget is required to be released. Other activities will not suffer at all.

As regards the large outlay required, he observed that the training programs of AICTE typically cost Rs 17000 per teacher for a 2-week workshop. The cost for training 1,50,000 teachers would work out to Rs. 255 Crores. He further mentioned that the conventional method of training 35 teachers per workshop would require more than 4200 workshops to be conducted. This is clearly an impossible task and cannot be achieved through conventional means. He mentioned that the use of ICT will alone enable the target to be achieved. He observed that in his opinion, the cost per teacher should be much less due to use of ICT, and that this aspect should be critically examined in the proposal submitted by IIT Bombay.

About the evaluation by external experts, he observed that there is no other group in India, and perhaps anywhere in the world, which has ever attempted this scale for training teachers in the higher education, so no other external expert can be found, but that this issue of external evaluation should also be raised with the PI.

At this stage, Prof Phatak was requested to explain the details of the project proposal, and to explain each and every component of the estimated cost. The key points of his presentation, questions raised by the committee, and clarifications given are listed below:

Prof Phatak explained that IIT Bombay had started its distance education program in 2000, using VSAT to connect to multiple institutions. Starting with 4 colleges, the connectivity was expanded to 15 Institutes, for delivering lectures in a two-way interactive fashion. In the year 2007, TIFAC had supported a project under which training workshops were conducted. Using this infrastructure, Prof Kannan Moudgalya had also transmitted live lectures of regular IIT courses. Phase I of the present project was built on this experience, and had proposed to conduct 2 week workshops for 1000 teachers at a time from 30 to 50 remote centers. As desired by NME-ICT, a pilot was first conducted, and feedback was obtained from the participants as also from the PRSG. After the main project was approved, 10 workshops in different core engineering subjects were conducted, training over 11,000 teachers. In these workshops, interactive lectures were delivered from IIT Bombay, whereas laboratory and tutorial sessions were conducted at remote centers. He mentioned that apart from the synchronous lectures delivered from IIT, asynchronous mechanisms were introduced, similar to those practiced in an earlier scale-up attempt by Prof Ray at IIT Kharagpur. These included discussion sessions at remote centers, and a compulsory team assignment to be submitted by participants in two weeks after the conclusion of the workshop.

IIT Bombay then conducted a pilot mega-workshop to achieve further scale up, attempting to train 10,000 teachers at a time. This workshop on Research methodologies was attended by over 8400 teachers from 168 remote centers. He shared the feedback obtained from the participating teachers, which was excellent. Since the need was to train Lakhs of teachers in higher education, the present proposal is submitted as phase II, to conduct such 15 workshops, to provide training to over 1,50,000 teachers. IIT Kharagpur is a partner Institute in this proposed project.

He also explained the provisions for external evaluation. He mentioned that anonymous feedback is obtained from the participants of each workshop. PRSG meetings critically go through the outcomes and evaluate the feedback. Additionally, it is proposed that ISTE will conduct an independent evaluation of the impact of each workshop, by independently interviewing teachers from sample colleges who attend these workshops, and also some of their students to determine if the teaching levels have improved.

He explained that, based on the experience of the mega-workshop, a need was felt to create a hierarchical structure in the form of 10 Nodal Centers to support about 500 Remote Centers. IIT Bombay and IIT Kharagpur would be the Hub Institutes conducting these training workshops, Under them, it is proposed to create 10 Nodal Centers, each of

which will supervise the conduct of 30 to 50 Remote Centres in its region. These Nodal Centers would be equipped to conduct coordinators training for Remote Centres under their jurisdiction. Remote Centres also need to be provided with some minimal equipment to ensure a high quality of audio-visual interaction, and to permit access to the open source contents from a server located in their premises. The budget for the proposal has been prepared keeping in mind all these requirements.

Questions and clarifications:

Several questions were raised by FA and by Shri Thomas on the finer details of the project, and the budget thereof. These questions, the clarifications offered by Prof Phatak, and the final directions given to him are recorded below:

1. Since workshops are planned to be conducted during vacation period, will not the infrastructure, proposed to be established at Remote Centers and Nodal Centers remain idle during regular semesters?

Clarification:

No. The infrastructure at Remote centers will be used for the regular teaching for local students during semesters, wherein the contents on the servers will be accessed and used by the students studying these subjects. The Nodal centers will be conducting coordinators' workshops during regular semesters, for which the infrastructure there will be used through the year. It is also envisaged that several week-end workshops will be conducted for the benefit of faculty and students during the semester. Thus overall, the infrastructure at these centers will be in regular use during the entire academic year.

It is further envisaged that the Nodal centers will also start conducting such workshops. In fact, the Remote Centers themselves should become local 'hubs' providing the infrastructure to be used for training teachers and students of other higher education colleges in their cities, covering arts, commerce and science subjects.

2. Are all the centers government Institutions?

Clarification:

No. The Remote centers are engineering colleges including both private and government institutions. The Nodal Centers are proposed to be those of such centers which have a higher reputation for quality education and some research. These are currently identified as NITs and some fully funded colleges. There are some good Institutes which are in private sector which may be considered.

Direction: Substantial infrastructure is being created at Nodal Centers. The Government funding for this part should not go to private Institutions. Nodal centers to be established must be Institutes fully funded by the Government.

3. Why are the Remote Centers not uniformly spread geographically across the country.

Clarification:

Invitation to become remote centers were sent to all engineering colleges. Those willing to participate have been evaluated and selected. The concentration of remote centers in the southern and western part is also due to much larger number of colleges in these regions. Recently, a newspaper advertisement was released in all national news papers, and many more colleges across the country have applied. These now cover states of Rajasthan, Punjab, Haryana, Uttar Pradesh, MP and Chattisgarh. Since a total of 500 remote centers are proposed, the new ones will be established in regions which have very few centers now.

Direction: It must be ensured that remote centers are spread across the entire geography of the country and that all regions are properly covered.

4. Explain the details of funds needed for hub Institutes, Nodal centers and Remote Centers.

Explanation: The equipment needed at each of these places is described along with the estimated item-wis

e budget. IIT Bombay's equipment budget is less because part of the audio-video equipment has already been procured for phase I which will continue to be used for Phase II.

5. As observed by Shri Sinha, the cost per teacher of conducting workshops using ICT should be less as compared with the costs for conventional workshops. Explain the budget estimates per workshop in details.

Explanation: A spreadsheet showing estimates for a workshop involving 172 RCs was used to determine these costs. This works out to Rs 6500 per teacher per workshop. It may be noted that the cost estimate for phase I was Rs 9500 per teacher per workshop. By increasing the number of centers across the country, the number of participating teachers coming from outstations has been reduced and is estimated at only 20% of the total 10000 participants .

Direction: The fixed cost portion should be calculated for 200 Remote centres which are expected to participate in each workshop rather than 172. Further, the averaging of food cost for outstation and local participants is not correct. It should be calculated separately as per standard norms. This appears to reduce the cost per participant to slightly less than Rs 6,300. The workshop budget should accordingly be reduced.

Also attempt should be made to further reduce this variable cost wherever possible.

6. The contingency provision appears to be large. What is the reason?

Explanation: When running an operation of this magnitude, unexpected contingencies arise. For example, a call centre had to be established at a short notice while running the mega workshop, because the number of queries from participants far exceeded the estimates.

Direction: Contingency estimate should be pegged at maximum 3% of the corresponding budget, where the given estimates exceed this limit . In any case, expenditure should be done from approved heads wherever possible.

7. Explain the high salary budget at Hub Centers

Explanation: The magnitude of this operation is such that a large number of personnel at various levels are required. Salaries for people at different levels, their qualifications and experience are based on those determined by a high power committee at IIT Bombay for temporary staff. The norms are commensurate with the sixth pay commission payouts. Appointments are made after due advertisement and selection process for 1 to 3 years on consolidated salary with a fixed increment.

Direction: This process is in order. However for temporary staff appointed on consolidated salary, there cannot be any fixed increments. It is suggested that the appointments should be made only for one year. They may be reappointed based on a performance review. The new salary fixed for next year should be based on the performance of the staff, and not at any fixed increment value.

In conclusion, the project appears to meet a strategic training requirement of the nation. The budget requested appears justified, but changes as directed should be made and the project budget should be appropriately reduced.



PART-I Information relating to department/institute

1. Name of Institute with complete address:
Indian Institute of Technology, Bombay
Powai, Mumbai 400 076
Partner Institute: IIT Kharagpur
2. Title of the Research Project: Teachers Empowerment, Students Empowerment, and Integration Tools for Empowerment (Synchronous Delivery), abbreviated as the Talk to a Teacher project (Phase 2)
3. Department/Broad Area:
Centre for Distance Engineering Education Programme
4. Major areas of research in the Department:
Synchronous course delivery. Pedagogy. Asynchronous engagement and Blended model of education. Education Technology Tools such as: Audio-Video, Network optimization, Clickers and tablets, Software tools like Moodle and Content Management Systems.
5. Names and Designation of Principal Researchers in the major areas and list of publication during last 5 years based on work done in the Department:
PI: Prof. Kannan Moudgalya, IIT Bombay
Co-PIs:
From IIT Bombay: Prof Deepak Phatak, Prof Sridhar Iyer
From IIT Kharagpur: Prof Somnath Sengupta
The resume of the PI and Co-PIs from IIT Bombay have already been submitted to NME-ICT for the previous project (Talk to a Teacher). Resume of Prof Sengupta of IIT Kharagpur will be sent shortly.
6. Is it Inter-disciplinary Project? Yes.
7. Is it Inter-Institutional Project? Yes.
8. Is any Industry/User agency participating? Yes, ISTE is participating
9. Brief of completed and or ongoing research projects supported by MHRD/AICTE in the Department during last 5 years. To be supplied when required.

PART-II Information relating to department /institute

10. Principal Investigator
 - (a) Name: Kannan Moudgalya
 - (b) Designation: Professor of chemical engineering
 - (c) Age: 54
 - (d) Educational qualification: Ph.D

- (e) Experience: More than twenty five years of teaching and research
- (f) Books and papers published: included in the resume of the PI submitted in the first phase of this project.
- (g) Is it a joint project with other Institution?

IIT Kharagpur is the partner Institute. ISTE is the agency recognizing and certifying the teachers participating in the workshops.

- (h) Has an MOU been signed? Yes, IIT Bombay has signed a MOU with ISTE.
- (i) Present commitments of the Principal Investigator
 - i. Teaching: two courses a year
 - ii. Ph.Ds registered under him: Two, in the area of educational technology
 - iii. Sponsored research: The first phase of this project, FOSSEE
 - iv. Consultancy: None
- (j) Other members of the research group to work on the proposed project:
 - i. IIT Bombay:
 - A. Prof. D. B. Phatak
 - B. Prof. Sridhar Iyer
 - ii. IIT Kharagpur: Prof. Somnath Sengupta

PART-III About research project

15. About the research project The main objective is to empowerment of teachers using ICT as an enabler. The proposed approach, mainly through synchronous methodologies, and through spoken tutorials, has been proven and validated through the earlier project. It is proposed to expand the model of conducting training workshops to further scale up the efforts incorporating appropriate asynchronous mechanisms: as also to extend the model to other group of teachers in Higher education.

10,000 Teacher Training Programme:

- (a) Summary of the project: The main deliverables will include conduct of 'Train 10,000 Teachers' Workshops. A total of 15 such workshops will be conducted. 9 of these will be conducted by IIT Bombay, and 6 will be conducted by IIT Kharagpur. Additionally, work on the spoken tutorials will be further expanded and will be integrated with the workshops. The methodology used will be tuned to offer a blended mode of empowerment including both, the synchronous and asynchronous mechanisms.

IIT Bombay will also have the task of coordinating these activities in the country. In particular, it will promote these activities in the country and take on board more suitable institutions as additional Remote Centers, Nodal Centers, and Hubs. IIT Kharagpur will be set up as the first such hub besides IIT Bombay. In addition IIT Bombay will set up 10 Nodal Centers and 500

Remote Centers for this activity. Additional workshops will be conducted for coordinators and technical staff at these centers as and when required.

It is envisaged that 1,50,000 teachers will be empowered in teaching various subjects through this project.

(b) Justification, importance of the project:

This project aims to rejuvenate the teaching community in Indian Higher Education System on a large scale. The importance and justification has already been submitted in the previous project proposal, which has been successfully executed. This project aims to substantially scale up the efforts to reach out to the entire teaching community in the technical higher education.

(c) Details of the work already done by the Investigators in this area:

IIT Bombay - Already submitted as part of the earlier project reports IIT Kharagpur - Prof Ray had done pioneering efforts in Distance Education which are well recorded. Over the years, much work has been done by his team in asynchronous methods and Pedagogy. All of which will be used to refine the workshop model. The co-PI from IIT Kharagpur, Prof Somnath Sengupta, is the Dean of Continuing Education

Spoken Tutorial Project:

(a) Summary of the project: Spoken tutorials have been established as an effective instructional methodology. A total of 500 original spoken tutorials and 5,000 dubbed tutorials will be created. A total of 1,50,000 students will be trained. Nodal Centres will be established in about 10 locations to sustain and to spread this activity in all parts of the country.

(b) Justification, importance of the project: This project will help improve IT literacy, improve employment potential of our students. It will also help bridge digital divide. We also propose to set up Nodal Centres that will help sustain and spread this activity.

(c) Details of the work done by the investigators in this area: The PI is successfully carrying out the spoken tutorial development and conducting workshops using the tutorials. About 85% of the students who undergo the workshop pass the post-workshop test. In the last about one year, we have completed about 2,500 workshops, through about 1,000 colleges.

16. Overall Budget (in lakh):

	I Year	II Year	III Year	Total
IITB	5557	3879	3937	13373
IITKgp	1299	1893	2637	5829
Total	6856	5772	6574	19202

Overall budget for two institutes, for three years = Rs. 19202 lakh

Details of the budget are given in the following pages.

Budget for the 10,000 teacher training programme (in lakh):

	First year		Second year		Third year		Total	
	IITB	IITKgp	IITB	IITKgp	IITB	IITKgp	IITB	IITKgp
Equipment	325	325	50	100	25	50	400	475
Salary	275	125	300	200	300	300	875	625
Consumables	100	50	100	100	100	100	300	250
Nodal centres(10)	750	0	250	0	250	0	1250	0
Remote centres(500)	1600	0	600	0	600	0	2800	0
10K workshops (15)	1887	629	1887	1258	1887	1887	5661	3774
Coordinator W/S (15)	75	25	75	50	75	75	225	150
Publicity/sponsorship	50	50	50	50	50	50	150	150
Travel	50	30	60	50	70	70	180	150
Contingency	100	100	100	100	100	100	300	300
Contingency	100	40	100	60	100	80	300	180
Coord. honorarium	25	25	25	25	25	25	75	75
Total	5237	1299	3497	1893	3482	2637	12216	5829

Total budget = Rs. 18045 lakh

The cost to conduct one 10,000 teacher workshop is Rs. 6.29 crore. The details are given in Table ..

Number of Teachers to be trained:

Year	First	Second	Third	Total
IIT Bombay	30,000	30,000	30,000	90,000
IIT Kharagpur	10,000	20,000	30,000	60,000

25

10 DAY WKS: 200 RCS and 10000 PARTICIPANTS						
A. FIXED COST						
	NO OF RCS	NO OF PERSONS REQD/ PER RC	HONORARIUM	FOR NO OF DAYS	PAYMENT	TOTAL (Rs)
RCC	200	1	13000		LUMPSUM	2600000
WSC	200	1	13000		LUMPSUM	2600000
Teaching Assistants	200	2	700	10	per day	2800000
Technical / Lab Assistants	200	2	500	10	per day	2000000
Network Coord	200	1	500	10	per day	1000000
Support Staff	200	1	500		LUMPSUM	100000
Misc Exp [avg 15000 / RC]	200	-			LUMPSUM	3000000
Instt Exp [10000/RC]	200	-			LUMPSUM	2000000
FIXED COST SUB TOT [A]						1,61,00,000
B. VARIABLE COST						
			Participant number	No of days	Rate (Rs)	TOTAL (Rs)
Local participants						
FOOD (local Participants)			10000	10	250	2,50,00,000
FOOD (RC Team)			1000	10	250	25,00,000
Outstation participants						
ACCOMMODATION			2000	11	350	77,00,000
FOOD (Participants)			2000	11	300	66,00,000
TRAVEL			2000		1000	20,00,000
VARIABLE COST SUB TOT [B]						4,38,00,000
TOTAL A +B						5,99,00,000
Add: workshop Fees to ISTE, CEP, CDEEP						30,00,000
TOTAL COST						6,29,00,000

Table 1: Detailed breakup of expenses for one workshop

Budget for the Spoken Tutorial part (IITB only), in lakh:

Year	First	Second	Third	Total
Equipment	25	25	25	75
Salary	175	200	225	600
Nodal centres (5,7,10)	50	70	100	220
Consumables	30	40	50	120
Contingency	10	12	15	37
Travel	20	25	30	75
Publicity/sponsorship	10	10	10	30
Total	320	382	455	1157

Total budget = Rs. 1157 lakh

Deliverables for the Spoken Tutorial part:

Year	First	Second	Third	Total
No. of original tutorials	100	200	200	500
No. of dubbed tutorials	1,000	2,000	2,000	5,000
No. of students trained	50,000	50,000	50,000	1,50,000

17. Recurring budget of the proposal along with item-wise breakup (in lakh)

	IITB	IITKgp	Total
Salary	1475	625	2100
Consumables	420	250	670
Nodal centres upkeep	350	0	350
Remote centres upkeep	1400	0	1400
10K Workshops	5661	3774	9435
Coordinator W/s	225	150	375
Publicity/sponsorship	180	150	330
Travel	255	150	405
Contingency	337	180	517
Coord. honorarium	75	75	150
Total	10378	5354	15732

18. Detailed breakup of non-recurring items (Rs. lakh)

	IITB	IITKgp	Total
Equipment	475	475	950
Nodal centre establishment	1120	0	1120
Remote centre establishment	1400	0	1400
Total	2995	475	3470

Summary Sheet

1. Name of the Institution: IIT Bombay
2. Title of the Project:
Teachers Empowerment, Students Empowerment, and Integration Tools for Empowerment (Synchronous Delivery), abbreviated as the Talk to a Teacher project
3. Name of the Department:
Dept. of chemical engineering and Dept. of computer science
4. Cost of the Project: Rs. 19780 lakh.
5. Amount released earlier if any: The first phase of the project
6. Utilization position in respect of grants released earlier for various projects (Details to be given project-wise): Funds used and committed.
7. Reasons for unspent balance: All the balance money is already committed.
8. Name of the Principal Investigator responsible for implementation of the Project:
Prof. Kannan Moudgalya

(NAME & SIGNATURE OF THE PRINCIPAL INVESTIGATOR)

Certificate from IIT Bombay

Certified

1. that the Principal Investigator is not due to retirement during the currency of this project.
2. that the Principal Investigator is a regular employee of this Institution. However in case he/she proceeds sabbatical/resigns/proceeds VRS etc., the Institute will ensure to replace PI by a compatible academician to ensure that without any break whatsoever, project will be completed within the stipulated period.
3. that it will be ensured that the implementation will be carried out on mission mode with no time or cost over run and we are aware that ministry will neither provide any extension of time nor additional funding.
4. that no overheads will be charges by the Institution for this project and all facilitation including other essential/infrastructure support like air-conditioning etc. will be provided by the Institution.

Seal of the Institution

Signature of Head of the Institution

For Office Use Only

1. Name of the Area:
2. Recommendations:
 - (a) Approved
 - (b) Not approved
 - (c) Deferred Amount (Rs.———— in lakhs)
 - (d) Transferred to area
3. Remarks, if any
(common for all the 3 schemes)

ATTENDANCE OF THE 24th MEETING OF PROJECT APPROVAL BOARD OF NATIONAL MISSION ON EDUCATION THROUGH INFORMATION AND COMMUNICATION TECHNOLOGY HELD ON 4TH OCTOBER 2012 AT 4.00 P.M. IN CONFERENCE ROOM (FIRST FLOOR), CSL BUILDING, SHASTRI BHAVAN, DR.RAJENDRA PRASAD ROAD, NEW DELHI

S.No.	Name, Designation and Address	Phone No., Fax and Email
1.	Shri Ashok Thakur Secretary (HE) MHRD, Shastri Bhawan, Chairperson New Delhi	
2.	Shri J. Satyanarayana Secretary (MIT) New Delhi	secretary@mit.gov.in
3.	Shri. N.K.Sinha Additional Secretary(TEL) & Mission Director (NMEICT) Department of Higher Education, MHRD, Shastri Bhawan, New Delhi	23387781 nksinha.edu@nic.in
4.	Shri R.P. Agrawal Former Secretary (HE), MHRD	rpa1949@gmail.com
5.	Shri A.K. Singh Director (ICT) Ministry of Human Resource Development, Department of Higher Education, Shastri Bhawan New Delhi	anandsingh.edu@nic.in
6.	Shri Sunil Kumar Sharma Deputy General Manager (BD) MTNL, C.O. New Delhi	9868131854
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23.	Shri Ashok Nakra Director-Technical DOT, New Delhi	011-23372575 dirt_dot@nic.in
24.	Ms. Kalpana Narain Director, Central University Bureau (HE), MHRD	9971515372 kalpnarain@yahoo.com

25.	Ms. P. Uma Lakshmi Deputy Manager BSNL, New Delhi	011-23734029 pumalakshmi2@gmail.com
26.	Prof. Bhaskar Ramamurthi Director IIT-Madras	Attended meeting through Skype
27.	Shri Raja Sekhar Additional General Manager BSNL, Hyderabad	09490000248 040-23224345 dgmofchyd@gmail.com
28.	Shri R.S. Mani Senior Technical Director NIC, A-Block, CGO Complex, New Delhi	9868209134 rsm@nic.in
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