F. No. 16-22/2009-DL
Government of India
Ministry of Human Resource Development
Department of Higher Education

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New Delhi, the 16th March, 2009

Subject: Minutes of the First Meeting of the Empowered Committee of Experts (Project Approval Board) of the National Mission on Education through Information and Communication Technology (ICT) – regarding.

A copy of the Minutes of the First Meeting of the Empowered Committee of Experts (Project Approval Board) of the National Mission on Education through Information and Communication Technology (ICT), a Centrally Sponsored Scheme, held on 03rd March, 2009 at 3.30 p.m. in Conference Room (No.112, C-Wing), Shastri Bhawan, New Delhi under the Chairpersonship of Secretary, Department of Higher Education, Ministry of Human Resource Development, is sent herewith for information and necessary action.

(Dr. D.K. Paliwal)
Deputy Educational Adviser (DL)
Tele: 23385489

All members of the Project Approval Board of National Mission on Education through Information and Communication Technology (ICT) [As per list enclosed].

Copy, with a copy of Minutes, to: Sr. PPS to Secretary (HE) & Chairperson, PAB and JS(DL) & Member Secretary, PAB for information.

Copy, with a copy of Minutes, also to:

1.   Shri Amitabh Bhattacharya,
        Principal Adviser (Education),
        Planning Commission,
        New Delhi.

2. Shri Furqan Qamar,
   Adviser (Education),
   Planning Commission,
   New Delhi.

3. Shri R. Chandrashekhar,
   Special Secretary,
   Department of Information Technology,
   New Delhi

4. Shri N. Ravi Shanker,
   Joint Secretary,
   Department of Information Technology,
   New Delhi.

5. Shri Subodh Kumar,
   Additional Secretary,
   Department of Telecommunications,
   New Delhi.

6. Shri S.K. Singh,
   DDG (Accounts),
   Department of Telecommunications,
   New Delhi.

7. Shri R.S. Mani,
   Sr. Technical Director,
   National Informatics Centre,
   Department of IT,
   New Delhi

8. Shri Anil Jain,
   GM (BB),
   BSNL, New Delhi

9. Shri R. Saji Kumar,
   DGM, BSNL, New Delhi

10. Prof. Ajay Chakraborty,
    Dean (CE),
    Indian Institute of Technology,
    Kharagpur.

11. Shri R.K. Shevgaonkar,
    Dy. Director,
    Indian Institute of Technology,
    Bombay.

12.   Prof. K. Mangala Sunder,
        Professor, Chemistry and
        NPTEL Coordinator,
        Indian Institute of Technology, Madras, Chennai

13.   Dr. A. Mukhopadhyay
        Adviser/Scientist 'G', SERC Division,
        M/o Science & Technology, D/o Science & Technology,
        Technology Bhawan,
        New Delhi – 110 016.

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Project Approval Board on National Mission on Education through Information and Communication Technology (ICT) members list

1. Secretary,
    Department of Higher Education,
    Ministry of Human Resource Development
    Shastsri Bhawan, New Delhi.   Chairperson

2. Secretary,
    Department of Expenditure,
    Ministry of Finance,
    North Block, New Delhi.

3. Secretary,
    Planning Commission
    Yojana Bhawan,
    New Delhi.

4. Secretary,
    Department of Telecommunication,
    Sanchar Bhawan,
    New Delhi.

5. Secretary,
    Department of Information Technology
    Ministry of Communication and Information Technology,
    CGO Complex, Lodhi Road,
    New Delhi.

6. Secretary,
    Department of Space,
    Lok Nayak Bhawan
    New Delhi.

7. Secretary,
    Department of Science & Technology,
    New Mehrauli Road,
    New Delhi.

8. Director,
    Indian Institute of Technology,
    Powai
    Mumbai-400076

9.   Director,
      Indian Institute of Technology,
      Roorkee-247667 (Uttrakhand)

10.   Director,
      Indian Institute of Technology,
      North Guwahati
      Guwahati-781039(Assam)

11.   Director,
      Indian Institute of Technology,
      P O Kharagpur-721302

12.   Director,
      Indian Institute of Technology,
      PO IIT,
      Chennai -600036

13.   Director,
      Indian Institute of Technology,
      Kanpur-208016 (U.P)

14.   Director,
      Indian Institute of Science,
      Bangalore-560 012
      Karnataka

15.   Director,
      Indian Institute of Technology,
      Hauz Khas,
      New Delhi-110 016

16.   Shri N.K.Sinha,   Member Secretary
      Joint Secretary (DL)
      Ministry of HRD
      Department of Higher Education
      Shastri Bhawan, New Delhi

<u>MINUTES OF THE FIRST MEETING OF THE EMPOWERED
COMMITTEE OF EXPERTS (PROJECT APPROVAL BOARD) OF THE
NATIONAL MISSION ON EDUCATION THROUGH INFORMATION
AND COMMUNICATION TECHNOLOGY (ICT) HELD ON 03RD MARCH,
2009 AT 3.30 PM IN CONFERENCE ROOM NO.112-C WING,
SHASTRI BHAWAN, NEW DELHI UNDER THE CHAIRPERSONSHIP
OF SECRETARY, DEPARTMENT OF HIGHER EDUCATION</u>

The first meeting of the Empowered Committee of Experts (Project Approval Board) (PAB) of National Mission on Education through Information and Communication Technology (ICT) was held at 3.30 pm on 3rd March, 2009 in the Conference Room No.112-C Wing, Shastri Bhawan, New Delhi under the Chairpersonship of Secretary, Department of Higher Education.

2.   The list of participants is at Annexe.

3.   Shri R. P. Agarwal, Secretary Higher Education, welcomed all the members and briefly described the details of the centrally sponsored scheme of National Mission on Education through Information and Communication Technology (ICT). He also indicated the pivotal role of the Project Approval Board (PAB) in implementing this scheme with the help of Committees of Domain Experts to be nominated by the PAB from time to time. The Experts Committees would examine and approve proposals submitted under this mission based on the details provided by various co-ordinators as well as the recommendations of reviewers. He informed the Committee of the formation of the National Apex Committee of the Mission under the Chairmanship of the Honourable Minister of HRD. He strongly urged the need to ensure that funds available under this Mission should be utilized most meaningfully and efficiently. The Chairperson made the following observations on the three agenda items before the PAB :

(i)   As proposed in the Note for the Cabinet Committee on Economic Affairs for the Mission, the Department of Telecommunications (DOT), would be requested to provide all the help necessary for providing broadband connectivity to more than 20,000 degree colleges throughout the country and for networking them. In addition, 419 Universities would be provided connectivity including to on average about 20 departments in each of the Universities. The quality of service on connectivity must be high and also be made available at competitive rates. Only institutions with valid accreditation for offering higher education programmes should be provided with this facility and that the Department of Higher Education, MHRD would provide this list to the DoT. Poor quality of service such as undue delays in establishing of connectivity or deviations from procedures laid down jointly by MHRD and DoT, would be liable to penalty. He assured

that the Department of Higher Education and the Office of Shri N. K. Sinha under whose co-ordinatorship the Mission is being carried out by the MHRD, would provide all assistance as required from time to time.

(ii)   He explained to the new members of the PAB from various Ministries, the significant efforts of all the 7 IITs (IIT Bombay, IIT Delhi, IIT Guwahati, IIT Kanpur, IIT Kharaghpur, IIT Madras, IIT Roorkee) and the IISc. Bangalore, in the execution of the first phase of the National Programme on Technology Enhanced Learning (NPTEL) which had started in June 2003. Though the financial sanction for the first phase and the activities of the first phase, as summarized in the project documents of NPTEL, ended on June 30, 2007, the Ministry of HRD has been quite supportive of continuing the NPTEL project into its 2nd and 3rd phase and had earlier proposed to provide a short term funding until the National Mission program was formally approved by the Cabinet. Now that the project is formally the lead project of the National Mission, he stressed the importance of ensuring all contents developed under the first phase of the project be made available freely to everyone using various media. He noted that the contents of these courses are already freely available to everyone in India and abroad from the website: www.nptel.iitm.ac.in. However, this plan would not be 100% effective in reaching out to students due to existing poor internet access in various colleges and therefore requested the NPTEL coordinators and Directors of all IITs to help in the speedy dissemination of the contents to each and everyone in the country. He also made the suggestion of integrating the existing e-content as for example, those provided by MIT Open Course Ware and other Indian educational institutions into NPTEL. On his request to the members for their views on these two items, the following observations were made by them :

- The Joint Secretary (JS), Distance Learning (DL) and Member Secretary (MS), PAB explained the aims of this Mission in extending computer infrastructure and connectivity to more than 20000 degree colleges as well as approximately 20 Departments in each of over 400 Universities / Deemed Universities and Institutions of National Importance. The estimated cost is about Rs.12,000/- per year per node for a pipe providing 512 kbps VPN (unshared) and up to 2 Mbps broadband (shared). It is important to connect all these institutions within the next 6 to 8 months. However, bandwidth will have to be provided incrementally based on the usage by the University Departments / Colleges / Institutions, so as not to waste bandwidth / resources. For rural areas, the connectivity rates will be less due to the availability of USO funds. It is also

necessary to have Institutions sign an MOU with MHRD for reimbursing 25 percent of their cost with 10 percent for the NE territories. All of this will be made available in the rental mode through DoT as noted in the approval accorded by the Cabinet Committee on Economic Affairs. The Department of Higher Education proposed to the PAB to permit the transfer of Rs.300 crores to the DoT for this purpose. The transfer of funds is subject to adherence of appropriate conditions mentioned in the sanction letter as per the approval of Central Government to the Scheme. Members suggested that this be done by inviting the detailed proposal from DoT and examination of the details by the Technical Committee which could be constituted exclusively for this purpose.

- The members deliberated on the relationship of connectivity program in this Mission to the connectivity project in the National Knowledge Network (NKN). It was made clear by the Secretary (HE) that there should be no duplicity of efforts or initiative between these two schemes. Members from the Department of Information Technology (DIT) explained the objectives of NKN and highlighted the background connectivity envisaged under NKN in its current phase as that between 100 premier institutions with very high broadband connectivity and bandwidth (1 gbps to 10 gbps per node). They mentioned that all other institutions may be connected to the NKN network in the future stage. Therefore, MHRD and DoT may provide connectivity to all the premier institutions in the country including IITs, NITs and Universities covered under the NKN network until it is set up. When NKN becomes effective, connectivity to the premier Institutions will be provided only by NKN and other large number of institutions will continue under the National Mission program of MHRD until such time that NKN expands its operations.

- The members of the PAB, requested details on the fund requirements of the NPTEL project. Prof. K. Mangala Sunder, Department of Chemistry, IITM who is also the National Web Course Coordinator of the NPTEL project, briefed the details of the NPTEL's requirements of funds and also emphasized the fact that this project was being carried out by all IITs and IISc. Bangalore from funds sanctioned by the Institutes on a loan basis. It is therefore, important that they be also paid back from the funds allocated to NPTEL project in this Mission. Lot of work has already been carried out in disseminating contents and in digitizing the contents for access through internet.

Large sums of money had to be spent for reaching out to various colleges and contents were being distributed to many colleges on demand in the form of DVD ROMs or Hard Disks. The NPTEL proposal for Phase II and III has listed all these activities as part of the project for Phase II and III and therefore, it is appropriate that the funds sanctioned for this project be utilized to cover some of the expenses already incurred for the execution of the project. The Directors of IITs also appealed to the Chairperson of the Committee that funds from the respective institutions were released only based on the understanding that they would be reimbursed when the Mission sanctions the NPTEL project. Prof. K. Mangala Sunder gave details of the hardware and other software required to be purchased for strategy, streaming etc. to be set up uniformly in all eight partner institutions and stressed the need for the release of funds – Rs.28.22 crores as the first instalment · urgently to sustain the momentum and to provide impetus to the project under the Mission.

4.   The Joint Secretary, Distance Learning and Member Secretary has received approximately 60 proposals through Sakshat to date for carrying out activities under the National Mission and requested the PAB to nominate members for Committees of Domain Experts. The Committees would evaluate proposals in their respective domains critically, seek expert / referee opinions and forward their recommendations to the PAB on the quantum of sanction. It was suggested by the members that the Directors of Premier institutions be contacted with a request to suggest / nominate their expert faculty members to act as referees in this context.

5.   After above discussions, the Project Approval Board (PAB) took the following decisions :

(i)   A Technical Committee be constituted comprising Prof. B.N. Jain, IIT, Delhi, Dr. Y.N. Singh, IIT, Kanpur, Shri R.S. Mani, NIC, Prof. H.M. Gupta, IIT, Delhi, Dr. B.K. Murthy, Director & Head, NKN, Prof. Hazoor Sharan, IIT, Delhi, Shri Anil Jain, GM (BB), BSNL, Shri R. Saji Kmar, DGM, BSNL, Ms. Shakila T. Shamshu, Joint Adviser, Planning Commission, Prof. S.V. Raghavan, IIT, Madras, with Dr. Prem Kalra, IIT, Kanpur as Convenor of the Technical Committee to critically examine the feasibility of providing broadband connectivity as envisaged under the National Mission on Education through Information and Communication Technology, to go into detailed technical specifications of the integrated National Knowledge Network and DoT/BSNL Network so as to see congruity aspects between these two networks and work out details/modalities to match closely with the ground realities. PAB also decided that report of the Technical Committee may be circulated to all members of the PAB

by 13.3.2009 and PAB will discuss this report in its next meeting scheduled for 17.3.2009 at 3.30 pm at New Delhi. PAB also directed that Technical Committee shall meet on 4.3.2009 and any other subsequent dates to discuss the matter.

(ii) IIT, Delhi was invited to make a presentation on Virtual Laboratories in the next meeting of PAB on 17.3.2009 to determine the quantum of initial funding for the virtual labs project coordinated by all IITs under this Mission.

(iii) ISRO shall be requested to make a presentation on EduSat usage before the PAB in the next meeting on 17.3.2009.

(iv) PAB directed that MHRD may identify the areas in which Committees of Domain Experts are to be formed and JS(DL) may write to some institutions, seeking nominations in these areas from those institutions. The committees would, in turn, examine the proposals received under the National Mission on Education through ICT.

(v) There shall not be any ceiling while providing broadband connections to the departments of universities. If some universities do not need all 20 connections while others need more than 20, it will be done on a case-by-case basis so that the average figures are retained for budgetary reasons.

(vi) MHRD will devise a format to be given to DOT/BSNL, containing an undertaking to contribute 25% cost of the connectivity, to be signed by the beneficiaries by DOT/BSNL at the time of installation. Beneficiaries will be asked to deposit Rs.10,000/- with the service provider at the time of installation of broadband facility. MoUs / Agreements shall be signed with the beneficiaries, as per requirement.

(vii) Government Polytechnics (about 2000) and National Institutes of Technology (NITs) may also be provided broadband connectivity under the Scheme of National Mission on Education through Information and Communication Technology.

(viii) It was indicated that there was not much enthusiasm in the students to use NPTEL courses as they did not find them useful for their examinations which were based on outdated syllabi. Therefore, it was proposed that the NBA/AICTE/VCs of Technical Universities should be sensitized to ensure that the syllabi of the engineering courses should be got updated from time to time so that

NPTEL courses become meaningful to the students in their examinations also.

(ix)   Additional Agenda Items circulated during the meeting of PAB on 03.03.2009 could not be discussed by PAB. PAB directed to place these items before it in the next meeting to be held on 17.3.2009.

(x)   NPTEL project included several components besides content creation, namely, hardware for storage and connectivity for streaming video content, digitization of video content, teacher training and manpower creation etc. as integral components of effective learning. Therefore, the Chairperson, in consultation with the IFD may allocate sufficient funds to cover the maximum requirements as may be projected by the project coordination group by drawing from appropriate sub-heads of the Cabinet approved note of the Mission Document besides NPTEL-specific allocation of Rs. 10 crores which is exclusively for the purpose of content creation. PAB also approved the overall NPTEL proposal for Rs. 90 crores for the Mission period and recommended that funds be released to the coordinating institute, i.e., IIT Madras soon for carrying out the project jointly with all the seven other partner institutions.

The meeting ended with a vote of thanks to the Chair.

List of Participants

1.   Secretary,
Department of Higher Education
Ministry of Human Resource Development
New Delhi   (in Chair)

2.   Shri Amitabh Bhattacharya,
Principal Adviser (Education),
Planning Commission,
New Delhi.

3.   Shri Furqan Qamar,
Adviser (Education),
Planning Commission,
New Delhi.

4.   Shri R. Chandrashekhar,
Special Secretary,
Department of Information Technology,
New Delhi

5.   Shri N. Ravi Shanker,
Joint Secretary,
Department of Information Technology,
New Delhi.

6.   Shri Subodh Kumar,
Additional Secretary,
Department of Telecommunications,
New Delhi.

7.   Shri S.K. Singh,
DDG (Accounts),
Department of Telecommunications,
New Delhi.

8.   Shri R.S. Mani,
Sr. Technical Director,
National Informatics Centre,
Department of IT,
New Delhi

9.   Shri Anil Jain,
GM (BB),
BSNL, New Delhi

10.   Shri R. Saji Kumar,
DGM, BSNL, New Delhi

11.   Prof. Ajay Chakraborty,
Dean (CEP),
Indian Institute of Technology,
Kharagpur.

12. Shri Sanjay Dhande,
    Director,
    Indian Institute of Technology,
    Kanpur

13. Shri S. Prasad,
    Director,
    Indian Institute of Technology,
    Delhi

14. Shri S.C. Saxena,
    Director,
    Indian Institute of Technology,
    Roorkee.

15. Shri R.K. Shevgaonkar,
    Dy. Director,
    Indian Institute of Technology,
    Bombay.

16. Prof. K. Mangala Sunder,
    Professor, Chemistry and
    NPTEL Coordinator,
    Indian Institute of Technology,
    Madras,
    Chennai.

17. Shri N.K. Sinha,
    Joint Secretary (DL) and
    Member Secretary, PAB,
    Department of Higher Education,
    Ministry of Human Resource Development,
    New Delhi

18. Dr. D.K. Paliwal,
    Deputy Educational Adviser (DL),
    Department of Higher Education,
    Ministry of Human Resource Development,
    New Delhi

19. Shri Raj Kumar,
    Under Secretary (DL),
    Department of Higher Education,
    Ministry of Human Resource Development,
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