File No.NMEICT (MS)/PAB/21
Government of India
Ministry of HRD
Department of Higher Education

****

29th July, 2011

To

All Members of Empowered Committee of Experts
(Project Approval Board) of National Mission on
Education through Information and Communication
Technology (As per list enclosed)

Sub: Agenda Papers for 21st Meeting of the Empowered Committee of Experts
(Project Approval Board) of National Mission on Education through
Information and Communication Technology (NMEICT) to be held on 11th
August, 2011 at 4.00 p.m. in Conference Room No.112-C-Wing, Shastri
Bhavan, New Delhi.

Sir/Madam,

Enclosed please find Agenda Papers for 21st Meeting of the Empowered
Committee of Experts (Project Approval Board) of National Mission on Education
through Information and Communication Technology (NMEICT) to be held on
11th August, 2011 at 4.00 p.m. under the Chairpersonship of Secretary,
Department of Higher Education, Ministry of Human Resource Development in
Conference Room No.112-C-Wing, Shastri Bhavan, New Delhi.

2.   Kindly make it convenient to attend the meeting.

Yours faithfully,

(A.K. Singh)
Director (ICT)
Tel: 011-23384276

Copy to:

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

AGENDA FOR 21ST MEETING OF PROJECT APPROVAL BOARD OF NATIONAL MISSION ON EDUCATION THROUGH INFORMATION AND COMMUNICATION TECHNOLOGY TO BE HELD ON 11th AUGUST, 2011 AT 4.00 P.M.

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Item No.8	Requirement of Furniture for Mission Secretariat of NMEICT	
Item No.9	Development of Vocational Educational Modules and use of Haptic Devices – Virtual Laboratories and VLSI and Embedded Systems, Mizoram University	
Item No.10	Management Information System (MIS) of NMEICT – A presentation will be made by Prof.Uma Kanjilal, IGNOU	
Item No.11	Strengthening of the Standing Committee of NMEICT	
Item No.12	Extension of pilot project, namely, "Establishing e-training environment for training technical teachers and students (creation of four courses)" sanctioned to National Institute of Technical Teachers Training and Research (NITTTR), Chennai.	
Item No.13	Any other item with the permission of Chair	

ADDITIONAL AGENDA FOR 21ST MEETING OF PROJECT APPROVAL BOARD OF NATIONAL MISSION ON EDUCATION THROUGH INFORMATION AND COMMUNICATION TECHNOLOGY TO BE HELD ON 11th AUGUST, 2011 AT 4.00 P.M. IN CONFERENCE ROOM NO.112-C-WING, SHASTRI BHAWAN, NEW DELHI

Item No.	Subject	Page No.
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Item No.6	Presentation on Communication and Bulk Storage Servers	
Item No.7	Presentation by BSNL	

Additional Agenda

Item No.1

Appointment of Consultants under NMEICT

The PAB of NMEICT in its meeting held on 25th February, 2010 has approved six positions of Senior Consultants for NMEICT in various disciplines i.e. engineering, social sciences, science, management, economics and biological sciences.

Based on the above, EdCIL with whom MHRD have signed a service agreement for providing support to NMEICT issued advertisement in Times of India, Nav Bharat Times and Employment News inviting applications for Senior Consultants on contract/deputation basis.   In response to the advertisement, 66 applications were received of which only 16 candidates were found suitable for being called for interview. Out of 16, 10 candidates appeared before the Selection Committee.

The Selection Committee in its meeting held on 18.11.2010 recommended following two candidates for engagement to the post of Senior Consultants for a period of one year:

Sl.	Name of the candidate	Discipline	Consolidated consultancy fee (Rs. per month)
1	Mr.Pradeep Kaul	Engineering	Deputation on usual terms
2.	Prof.Mohan V.Deshpande	Engineering	Rs.75,000/-

EdCIL vide its letter dated 21st December, 2010 sought following clarifications:

(i)   Whether both the candidates are to be engaged or the candidates at serial number 1, is to be given the offer in the first instance.

(ii)   Copy of the Standard Terms and Conditions of deputation for taking up the matter with the parent office of Mr.Pradeep Kaul.

(iii) That as per EdCIL norms the highest position of Chief Consultants has the approved range of remuneration fee of Rs.30,000/- to 55,000/- p.m. The recommendation of monthly fee to Prof.Deshpande at Rs.75,000/- p.m. is beyond the approved remuneration of EdCIL.

With regard to (i) PAB has already approved six positions of Senior Consultants and hence as per the recommendations of the Selection Committee offer should be issued to both the candidates.

As regards (ii) is concerned, Mr.Pradeep Kaul has already retired from service on 30th April, 2011, hence copy of Standard Terms and Conditions of deputation may not be required now.

For (iii) the matter was put up to PAB in its 20th meeting held on 2nd May, 2011 and the following decision was taken:

> *"After deliberations PAB approved a consolidated remuneration up-to Rs.75,000/- p.m. for senior consultants. PAB further decided that if a pensioner is engaged as Consultant or Senior Consultant etc, his pension will be adjusted as per existing norms."*

The issue before PAB for consideration is now whether

(a)   Mr.Pradeep Kaul who was recommended by Selection Committee for deputation and has retired on 30th April, 2011 can be offered contractual appointment on a remuneration of Rs.75,000/- p.m. (subject to the remuneration and pension plus DA admissible on pension not exceeding his last pay drawn plus DA admissible on last pay drawn) as it is not possible to take him on deputation basis.

(b)   Contractual appointment may be issued to Prof.M.U. Deshpande on a remuneration of Rs.75,000/- p.m. subject to the remuneration and pension plus DA admissible on pension not exceeding his last pay drawn plus DA admissible on last pay drawn.

PAB may please consider.

Item No.2

Approval of projects recommended by Standing Committee

2.1 E-COURSE DEVELOPMENT, Project investigator: Dr N.BASKARAN, DEPARTMENT OF   PHILOSOPHY, NATIONAL COLLEGE, TIRUCHIRAPALLI-1
Control Number: Ne04011010497

Standing Committee in its Meeting held on 8th January, 2011 recommended the project:

The extracts of the minutes meeting are as follows:

Name of the Project: E-COLIRSE DEVELOPMENT
Control No. Ne - 0401 1010497
Name of PI(s): Dr N.BASKARAN (e-mail ID: sakthibass~yahoo.com), DEPARTMENT OF PHILOSOPHY, NATIONAL COLLEGE, TIRTUCHIRAPALLI-1

Proposed Budget: 18 (Subjects) X 7, 00,0001- = Rs.1, 26, 00,0001-

Observations and Recommendations of SC

The PI proposed to produce e-content courses in Philosophy for PG students in 18 subjects at a cost of Rs.1.26 crores. The PI has already presented his proposal last year. After seeing the presentation, the SC advised the PI to evolve e-content production using the 4-quadrant approach and advised to produce Two Pilot courses of minimum 40 lectures each. The SC recommended Rs.14 lakhs for creating Two Pilot courses of minimum 40 lectures each.

However, the PI may submit the budget along with detailed appraisal in the prescribed format. The detailed appraisal will be conducted in the next/subsequent meeting of the Standing Committee to be notified.

The Appraisal done by the Standing Committee is enclosed **(Appendix-A)**

The Standing Committee recommended for a total amount of Rs. 13.45 lakhs.

Standing Committee in its Meeting held on 5th March, 2011 recommended the following project:

2.2. Designing, developing and Delivery of subject Hospital Support Services e-content for students of Hospital and Health care Management by Dr. L. Kalyan Viswanath Reddy, Hemchandracharya North Gujarat University, Gujarat

The extracts of the SC meeting are as follows:

Designing, developing and Delivery of subject Hospital Support Services e-content for students of Hospital and Health care Management by Dr. L. Kalyan Viswanath Reddy, Hemchandracharya North Gujarat University, Gujarat

Control No: DE-15011111724

Objectives:

- To design and develop an e-content of the subject Hospital Support Services for the students of Hospital and Health Management.
- The major areas of application of this subject include Billing services, CSSD, Medical records, Housekeeping, Security services, Bio Medical engineering department, Tele medicine, Food and beverages, Administration of Hospital etc.

Deliverables:

- The designing and developing of this subject is done by 4 ways

  - e content generation.
  - Video lecture with animations and flash.
  - Webiliography.
  - Self assessment questions with quiz and online exam after the topic.
- Total topics to be developed – 10 topics
- Total number of video lectures developed – 41
- To be completed in 7 months

Total Budget required: 6.472 lakhs

Recommendation: Project is recommended as per the budget submitted by PI.

The Appraisal done by the Standing Committee is enclosed **(Appendix-B)**

The Standing Committee recommended for a total amount of Rs.6,47,200/-

2.3. e-Content Generation For Specialized Training Programs Of Bio-Medical and Electronics Product Design domain, PI: Chetan Manchanda, CDAC, Mohali

Control Number:-CE-10011111669

Standing Committee in its Meeting held on 26th March, 2011 recommended the project:

The extracts of the SC meeting are as follows:

PI: Chetan Manchanda

Title: e-Content generation for specialized training programs of electronics hardware and animation domain Institute: CDAC Mohali
CONTROL NUMBER: CE-100 11111 669

Propose to create 16 courses (9+7) in two years, at a cost of Rs. 112 lakh.

Biomedical electronics - 3
Multimedia and animation - 6
Repair and maintenance of PC and peripherals - 1
Microcontroller (architecture, programming and interfacing) - 1
Wireless and Broadband (VoIP) - 3
Electronic product design and technology - 2

A pilot of two courses, one in the area of (1) biomedical electronics, technology and maintenance and (2) electronics product design and technology is recommended at a total project cost of Rs. 14 lakh.

The Appraisal done by the Standing Committee is enclosed (**Appendix-C**)

The Standing Committee recommended a pilot of two courses, one in the area of (1) biomedical electronics, technology and maintenance and (2) electronics product design and technology is recommended at a total project cost of Rs. 14 lakh.

2.4. Development of E-content for academic courses and professionals in the areas of the IT enabled Management, Dr.Deepali Singh, De-0403100569, ABV-Indian Institute of Technology and Management, Gwalior

Standing Committee in its Meeting held on 16th July, 2011 recommended the project:

The extracts of the meeting are as follows:

Dr.Deepali Singh, De-0403100569, ABV-Indian Institute of Technology and Management, Gwalior

- E-content for IT enabled management
- ABVIIIT, IITD, and IIM Shilong (partners)
- Training of teacher and professionals in above courses.
- Workshop for finalization of course curriculum
- Testing of e-content through students.
- 14 lakhs funds required.
- How the four quadrants will be made? Answered satisfactorily. Content will be prepared in four quadrants.
- Recommended the release of Rs.14 lakhs in the beginning of the project for two courses.
- Recommended that a project monitoring committee be formed. The onus of reviews getting done lies with PI.

The Appraisal done by the Standing Committee is enclosed (**Appendix-D)**

Standing Committee recommended the release of Rs.14 lakhs

2.5. e-Content Development for the course "Extension Education, Dr. Avani Maniar, Department of Extension and Communication, M.S University, Vadodara. Control No. _AE-11071011058

Standing Committee in its Meeting held on 16th July, 2011 recommended the project:

The extracts of the meeting are as follows:

> **Dr. Avani Maniar, Department of Extension and Communication, M.S University, Vadodara.**

> E-content development for the course on extension education

- Extension education in digital form
- Content will have audio video, live example
- Econtent validation to be done
- Evaluation by experts for verification
- Will be placed online for access.
- Rs.7.03 lakhs requested.
- Rs.7 lakhs recommended at the beginning of project subject to feedback received from at least three experts in the area.

The Appraisal done by the Standing Committee is enclosed (**Appendix-E**)

Standing Committee recommended Rs.7 lakhs at the beginning of project subject to feedback received from at least three experts in the area.

Standing Committee in its meeting held on 6th August, 2011 recommended the following:

The extracts are as follows:

2.6 .
PI: Vishal Sahni
Institute: DEI
Partners: IITD, IITK,
Title: Quantum Nano Systems
CONTROL NUMBER: VS24220099870

Quantum Nano School
Quantum experiments
Quantum simulations to do on normal computers
Lectures and course notes for Quantum and nano computing
Generating awareness
Small experiments

Budget = Rs. 2 crore for pilot
I phase released = Rs. 1.5 crore in Feb. 2010
SQUID based devices
Quantum computer simulation through QCAD, developed at Queensland,
Australia
Matlab simulation
Tubulin based computing
Classroom interactions
Quantum Nano Schools (annual event)
100 lectures digitised and released
Video clip taken from IIT Delhi shown - reaction between nanoparticles
- formation of CdS

Objectives:

1. SQUID based quantum computing device prototypes (60-65% of expenses)
2. Prototypes of trapped ion, NMR, QED, Neutral Atoms, solid state,
quantum dot based quantum computing devices
3. Unified modelling theory for information processing circuits
4. Web-based interfaces for using these devices at the national hub
from remote locations
5. Conceptual framework for remote communication using quantum
teleportaiton

60-60% was spent on equipment
20-25% on awareness
Rs. 15lakh Content generation workshop
Rs. 95lakh for hardware and software
Rs. 15lakh transfer to IIT Kanpur, Debabrata Goswami
Rs. 5lakh transfer to IIT Delhi, Kalra
Rs. 10lakh for travel (about 5 to 6 lakhs for travel of overseas people)
Rs. 5lakh Secretarial
Rs. 5lakh honorarium

The Mission document allows for the travel of experts.

Both experts opined that the workshop that they conducted was done extremely well - and of international standards.

How does this become a material useful for ICT? The SC recommends suitable ICT material be prepared, in four quadrant format.

The PI showed some Matlab based simulations. The Mission is promoting open source software systems. The PI is urged to use Scilab.

The SC recommends the release of the next installment of 30% Rs. 5 crore, namely, Rs.1.5 crore.

2.7
PI: Tilak R. KEM
Institute: CEC
Title: e-Content Development
CONTROL NUMBER: DE-19111011541

Rs. 50 lakhs to CEC on 15 July 2009 (50% of project amount)

Disbursed 17 media centres (EMMRC) - to create 19 courses: Rs. 3 lakh each to Pune, Jamia, Indore, Srinagar, Osmania, Ahmedabad, Kolkata, EFLU, Hyderabad, Calicut. Rs. 2 lakh each to Jodhpur, Madurai, Imphal, Chennai, Mysore, Patiala, Roorkee, Sagar. Balance Rs. 7 lakh to CEC.

Everything is in 4-quadrant approach.

Rs. 5.40 crore received under phase 1.

68+19 subjects, 6 to 7 papers (i.e. courses) on each.

Dr. Kem requested that they receive Rs. 7 lakh per 40 lecture course delivered in 4 quadrant approach as per the norms. The PIs clarified that every video was prepared especially for this course.

The SC recommends the above request, provided they do not get funding from UGC or other governmental resources for the same purpose.

Dr. Kem wants for the following:

355 modules (i.e. one hour instruction) x 17,500 = 11.80 crore
Training, workshops = 0.20 crore
Total amount = Rs. 12.00 crore

A review of the courses has to be done by the experts.

Out of this, Rs.5.9 crore has already been given. Subject to the above observation, an additional amount of Rs. 6.1 crore is recommended by the SC.

2.8.
PI: Dr. Ramanujan
Institute: CDAC, Bangalore
Title: Technology for Analysis of Rare Knowledge Systems for Harmonious Youth Advancement (TARKSHYA)
CONTROL NUMBER: Pe-24090910307

This project was already presented in the PAB and approved. The PAB had initially approved the pilot component of Rs. 50 lakhs.

The pilot project is now completed with favourable inputs from the referees.

As a part of the main phase of the project, creation of PG level courses in Mimamsa, Vedanta, Nyaya, Vyakaranam in Vedas, in that order is proposed. A total of 60 courses at the PG level and 10 courses at the UG level are proposed. All of them will be released in four quadrant approach.

The SC recommends that 30% of the total project cost of Rs.5 crore, namely, Rs.1.5 crore be released.

2.9.
PI: Dr. Ramanujan
Institute: CDAC, Bangalore
Title: S&T inputs from Sanskrit for modern times
CONTROL NUMBER: De-02031010560

Dr. Ramanujan presented his pilot project proposal for Rs. 25 lakhs for a project that gives S&T inputs from Sanskrit for modern times.

The objective of this project is to explore and to unearth knowledge content in Sanskrit texts with particular reference to S&T and other allied disciplines.

He proposes to enumerate 500 titles, which need to be procured and data entered. This proposal was already presented once to the SC Meeting held on 6 March 2010. The comments of the SC's recommendations have been incorporated.

The SC recommends this pilot project.

2.10
PI: Prof. M. S. Ananth
Institute: IIT Madras
Title: NPTEL
Control Number:

Prof. Mangala Sunder presented the current status of NPTEL, on behalf of Prof. M. S. Ananth. The project is going on schedule. He requested for the release of the remaining amount of Rs. 40 crore.

The SC appreciates the work done by the NPTEL Team and recommends that the said amount be released.

2.11.
PI: Prof. Ramesh Panda
Institute: BHUIT
Title: developing E-Content in Shastri (Hons.) & Acharya courses
Control Number: RE-28111011549

The Pilot project proposal of Prof. Ramesh Panda on the development of 5 Sanskrit courses was discussed. The PI proposed to develop 25 courses. As a pilot, he also proposed to develop five courses. He already presented his project to the SC and incorporated its recommendations. **The SC recommends Rs.35 lakh be awarded to him for the development of five Sastry and Acharya courses, in four quadrant approach.**

Item No.3

Inclusion of private colleges under the N-LIST programme.

Director, Information and Library Network Centre (INFLIBNET) vide letter dated 21st July, 2011 (copy enclosed as **Appendix**-**F**) has requested MHRD for inclusion of private colleges under the Indian Library and Information Infrastructure for Scholarly Content (N-LIST) programme. He has stated that 1929 colleges has registered for N-List programme including 1378 colleges that are covered under 12(b) and 2(F) section of the UGC Act. He has proposed that the N-list programme may be allowed to enroll private colleges with annual membership of Rs.5,000/-.

PAB may please consider.

Item No.4

Allocation of funds to States for NMEICT Awareness related issues

During the last zone-wise meeting of Principal Secretaries/Secretaries of Higher Education & Technical Education of States/Union Territories held in MHRD, it was suggested that to propagate the objectives of NMEICT and create awareness among the different institutes/universities, States/Union Territories may be allocated some funds. It is proposed to approve, in principle, funding of a maximum amount of Rs.10 lakhs and Rs.5 lakhs to States and Union Territories respectively, for this purpose based on their requirement. The funds will be transferred through Mission Secretariat.

PAB may please consider.

Item No.5

Approval for extension of projects under NMEICT

Dr.K. K. Singh, PI of project titled "Development of e-content on ancient Indian Metallurgy and Modern Process Metallurgy" Banaras Hindu University, Deptt of Metallurgical Engg Institute of Tech, Varanasi has requested for extension of project by six months. The same was put-up in the Standing Committee Meeting of NMEICT held on 6th August, 2011. The SC recommended the following:

> *K. K. Singh of BHU wants extension of the project by six months.*
> *The SC recommends that the PAB gives extensions to all projects that*
> *need them.*

PAB may consider the above and also consider extension of other projects upto 31st March, 2012 as recommended by the Standing Committee.

Item No.6

Presentation on Communication and Bulk Storage Servers

The PAB in its 17th meeting held on 26th November, 2010 constituted a Committee on "Communication and Bulk-Storage Servers at 100 premier institutions" under NMEICT Scheme. A presentation on the progress made in this regard will be made by Dr.Huzoor Sharan of IIT Delhi.

Item No.7

Presentation by BSNL

A presentation will be made by BSNL on the progress made with regard to providing connectivity to universities and colleges under NMEICT.

Item No.1

The Minutes of the 20th Meeting of the Project Approval Board held on 2nd May, 2011 are placed below (**Appendix-1 Page No.____**) for kind perusal and confirmation please.

Item No.2

The Action Taken Report on the Minutes of the 20th Meeting of the Project Approval Board held on 2nd May, 2011 is given at **Appendix-2- (Page No.___).**

Item No.3

Approval of New Projects recommended by Standing Committee

This item was presented to PAB in its 20th meeting held on 2nd May, 2011 but the item was deferred by PAB for next meeting.

Standing Committee in its various meetings recommended the following projects:

Standing Committee Meeting – 21st August, 2010 -

1. E-content generation for adult and non-formal education programme

The extracts of the SC meeting are as follows:

SUBMITTED BY :-   R. Pandya
Institute: Faculty of family and community sciences, MS University, Baroda
CONTROL NUMBER :-   DE-21071011123

The PIs have proposed the generation of three courses. They made an excellent presentation of the project proposal. The proposal is in the important area of adult and non-formal education. The Committee recommends this proposal. The projected expenses are within the norms allowed by the mission.

The PIs have not presented the details for the ten point assessment. They are asked to re-submit the proposal with this information. They need not make another presentation to the SC again.

One of the issues in adult and non-formal education is the teaching material to be used by the trainers. Consistent quality of it has to be ensured if the training is to succeed. The PIs may consider the spoken tutorials route for this purpose.

The Appraisal done by the Standing Committee is enclosed **(Appendix-3 – Page No._____).**

The Standing Committee recommended Rs.14,08,800 for pilot project in three subjects.

Standing Committee Meeting – 9th October, 2010

2.   Development of e-content for undergraduate students in science in the area of chemical process industries, Dr. Nirmal Kumar Kantibhai Patel, NV Patel College of Pure and Applied Sciences.

The extracts of the SC meeting are as follows:

DE-13091011333

Development of econtent for undergraduate students in science in the area of chemical process
industries
Dr. Nirmal Kumar Kantibhai Patel, NV Patel College of Pure and Applied Sciences.

– after delibertion title – Heavy and fine chemicals
– to be as per UGC syallbus
– resubmission after adding topic and learning objectives for each lecture.
– Already done some part available at nkpatel.co.in.
– Costing as per the additions to be done, no money for already done work.
– Maximum upto 7 lakhs
– 100% in the beginning

The Appraisal done by the Standing Committee is enclosed **(Appendix-4 – Page No._____)**

The Standing Committee recommended Rs.7 lakhs for pilot (one course).

Standing Committee Meeting – 5ᵗʰ March, 2011

3. Development of e-courses in B.com, M.com, MBA
Prof. H. Venkateshwarlu Haripuram, Principal, University College of Commerce & Business Management, Osmania University, Hyderabad

The extracts of the SC meeting are as follows:

PI: Prof. H. Venkateshwarlu Haripuram, Principal
Institute: University College of Commerce & Business Management,
Osmania University, Hyderabad-500007
email: Harripuram@yahoo.com
Mobile: 09848209660
Title: Development of e-courses in B.com, M.com, MBA
Control no.: Pe-14120910459

Proposes to deliver 175 courses of 7,000 hours in 4-quadrant
Demonstrated some lessons that the PI developed.

The SC recommends the following two courses:

a. Business enviornment
b. Financial accountancy

with a total outlay of Rs. 14 lakhs.

The Committee recommends that the rest of the courses be proposed in a consortium mode and a presentation made again before further funding.

The Appraisal done by the Standing Committee is enclosed **(Appendix-5– Page No._____).**

The Standing Committee recommended Rs.14 lakhs for two pilots (One in Business Environment and second in Financial Accountancy). However, PI/Co-PI honorarium without participation in content development not recommended by the Standing Committee.

4.   e-content for all media courses
PI: Dr. N.S. AshoK Kumar, Professor & Coordinator, Dept of Electronic Media Bangalore University, Palace Road, Bangalore

The extracts of the SC meeting are as follows:

> *PI: Dr. N.S. AshoK Kumar, Professor & Coordinator*
> *Institute: Dept of Electronic Media Bangalore University, Palace Road, Bangalore-560009*
> *email: kumarnaashi@yahoo.com*
> *Ph: 080-22961282*
> *Title: e-content for all media courses*
> *Control number: De-03081011176*
>
> *Broadcast journalism.*
>
> *To produce multimedia lessons and video documentaries, to teach the nuances of TV and radio production. To incorporate motion video, graphics, animation, audio clips. To teach how to create multimedia.*
>
> *27 e-courses that require TV studio will be useful to colleges that do not have access to such expensive studios.*
>
> *Proposes to make them in 4-quadrant approach, suitable for 40 hours of lecture.*
>
> *The total budget for this project is Rs. 1.89 crore, which is as per the funding norms of this Mission.*
>
> *He proposes to make available these courses in Kannada language also.*
>
> *The SC is appreciative of the project proposal. There has been no other proposal in this area. The PI is recommended to do two courses (Electronic media and animation) at Rs. 14 lakh as a pilot phase. The PI should also explain the use of FOSS tools as a part these courses. He is urged to complete the two courses ASAP.*
>
> *After a review of these two courses, funds for the remaining courses can also be made available.*

The Appraisal done by the Standing Committee is enclosed **(Appendix-6 – Page No._____)**

The Standing Committee recommended Rs.14 lakhs for two pilots (One - Introduction to Mass Communication and second Graphics and Animation).

Item No.4

Proposal for Production of Courseware E-Content for Postgraduate Subjects (Control Number: UE-30041111980)

An agenda "UGC proposal – funding of a new project" as Agenda Item No.9, was put up to PAB in its 20th meeting held on 2nd May, 2011, PAB made the following observations:

> *"Convener, Standing Committee informed PAB that the proposal of UGC needs to be firmed up. While PAB was of the view that there is a need for an over-arching body like UGC to supervise and create e-content, especially in humanities and arts, the expertise needed is also of paramount importance. Therefore, UGC may firm up its proposal and submit the same to the Mission. Planning Commission representative reiterated the need for ensuring that the Mission covers all disciplines including arts, humanities, social sciences and others as laid down in its mandate and avoid the possibilities of over-emphasis on pure and applied sciences and engineering and technology. Hence, it is expected that UGC can play a crucial role in ensuring development of e-content in these disciplines."*

The above project was discussed in the Standing Committee Meeting held on 14th May, 2011. The extracts of the meeting are given below:

> **"Production of Courseware E-Content for Post-graduate Subjects: Presented by Dr. Prakash, Additional Secretary, UGC, New Delhi.**
>
> Deliberations of the SC:
>
> PI is not identified. Details of the 77 subjects have to be given.
>
> Funding proposal was seen by Standing Committee Members. The SC discussed the issues. The suggestions are:
>
> UGC can be the nodal agency for creating courses in as many subjects as possible all of which are under the present curriculum of UGC. It will agree to do the following:
>
> 1. UGC will identify a PI or more for each subject discipline.
> 2. Each one of those groups of PIs will submit a detailed proposal for the subject by involving a number of experts and the detailed list of courses the contents that can be prepared.
> 3. Each one of those proposals will be perused by the standing committee and examined along with additional experts as necessary before deciding on the project goals and the alignment with the mission goals.
> 4. UGC will play the role of coordinating the PG course content creation and will regulate funding sanctioned for each such project."

A budget of Rs.84 crores has been proposed by UGC as per details given below:

Total Amount Required: Rs. 8400.00 lakhs

(a) Recurring Budget / for the Proposed Project along with Item-wise Breakup

Sl. No.	Items of expenditure	Quantity	Unit Cost (in Rupees)	Total Cost (Rs. in Lakhs)
1.	E-content Development	40,000	20,000.00	8000.00
2.	Conducting Workshops	30-40	5,00,000.00	200.00
3.	Total			8200.00

(b) Detailed Breakup of Non-recurring Items

Sl. No.	Items of expenditure	Quantity	Unit Cost (in Rupees)	Total Cost (Rs. in Lakhs)
3.	Hardware (PCs, Laptops, Servers, etc.)			200.00
4.	Total			200.00

PAB may please consider the above proposal.

Item No.5

Virtual Labs Project (Remote Triggered Labs)

An agenda "**Virtual Labs - Remote Triggered Experiments** " as Agenda Item No.10, was put up to PAB in its 20th meeting held on 2nd May, 2011, PAB made the following observations:

> "Prof. Ranjan Bose, IIT, Delhi briefly informed PAB of the status. PAB decided that the proposal may first be examined and scrutinized by the Standing Committee and its recommendations may be placed before PAB."

The Standing Committee discussed the project in its meeting held on 14th May, 2011.   The extracts of the meeting are given below:

> **"Virtual Labs Project (Remote Triggered Labs), PI Prof. Ranjan Bose**
>
> Labview student version is free. There does not appear to be any open source software which is as well developed and user friendly as Labview at present. Until similar platforms are developed, Labview engine is critical for running virtual labs.
>
> Cost of Labview already factored out is for running a program engine. The licenses required are dependent on the number of institutions and the type of experiment. The PI agreed that he will exercise professional discretion on where the software is absolutely required versus where it can be replaced by lesser known and less well developed open source
>
> Use of Matlab versus Scilab was discussed in detail. The PI agreed that he would reduce the usage of Matlab to an absolute minimum and will put conscious efforts to use open source software wherever possible. In the interests of carrying out the project in time and ensure users get what they have been promised,
>
> The SC recommends the project as submitted."

A Budget of Rs.2324.71 lakhs for Development of 37 labs was proposed by IIT against which an amount of Rs.2268.23 lakhs has been recommended after due diligence. The details are given at **Appendix-7-Page No._____.**

Item No.6

Extension of pilot project, namely, 'text transcriptions of technical video index, metadata and online quizzes" sanctioned to Indian Institute of Technology, Madras under National Mission on Education through Information and Communication Technology Scheme.

The abovementioned pilot project was sanctioned to Indian Institute of Technology, Madras during 2008-09 and 1st installment of Rs.1.53 crore was released to the Institute. The duration of the project was one year.

The project has been reviewed by the Standing Committee and Standing Committee has recommended release of 2nd installment to the Institute. Accordingly, the proposal was sent to Integrated Finance Division of MHRD for concurrence to the release of 2nd installment of Rs.1,53,50,545/-. Integrated Finance Division has concurred in the proposal subject to the project being given appropriate extension by the competent authority.

PAB is requested to consider granting extension upto 31.3.2012 to Indian Institute of Technology, Madras for the abovementioned Project.

Item No.7

Budget Estimates for 2011-12 for TSG/Mission Secretariat of NMEICT

The Department of Higher Education, Ministry of HRD had signed a Service Agreement with EdCIL (India) Limited for establishing a Mission Secretariat for the National Mission on Education through Information and Communication Technology (NMEICT). The Mission Secretariat consists of a Technical Support Group (TSG), Consultants and the Support Staff dedicated to the Scheme to provide support to the Department of Higher Education, MHRD for smooth execution of the project.

Besides being providing support in organizing various meetings like Standing Committee, Implementation-cum-monitoring Committee, Project Approval Board, etc, the TSG is also providing on the spot payment facility for Travelling Allowance and Honorarium being paid to the members and the participants of various Committees. A budget (recurring and non-recurring) of Rs.556.43 lakhs for the Mission Secretariat of NMEICT for the year 2010-11 was provided against which an amount of approx.Rs.174 lakhs (approximately) has been spent on the project during the year 2010-11.

The Budget Estimates for the Mission Secretariat of NMEICT for the year 2011-12 have been provided for a total amount of Rs.435.63 lakhs including Non-recurring Expenditure of Rs.67.01 lakhs and Recurring Expenditure of Rs.348.02 lakhs as per the details enclosed at **Appendix-8**.

The Budget proposed for the year 2011-12 for the Mission Secretariat is well within the overall ceiling of 1% of the total outlay fixed for the project.

The above budget was presented to the Standing Committee in meeting held on 16th July, 2011 and Standing Committee recommended for Rs.4.35 cr plus service tax on actuals.

PAB is requested to consider and approve budget of Rs.435.63 lakhs for the Mission Secretariat for the year 2011-12 and release of 1st installment of Rs.218 lakhs (being 50% of the total budget) after adjusting the unspent amount available with EdCIL.

Item No.8

Requirement of Furniture for Mission Secretariat of NMEICT

The office of the Mission Secretariat of NMEICT has been shifted to the office space provided by IGNOU at its campus in Maidan Garhi. The Mission Secretariat does not have its own furniture. The matter regarding providing furniture by IGNOU was discussed with the Registrar, IGNOU. They have provided only one office table and two chairs on refundable basis.

The detailed requirement of furniture for the Mission Secretariat and Technical Support Group (TSG) of EdCIL has been worked out keeping in view the staff/Consultants likely to join. An approximate amount of Rs.10-12 lakhs may be required for the purchase of above items. This has been budgeted in the Budget Estimates for the Mission Secretariat for the year 2011-12.

PAB may please consider the proposal.

Item No.9

Development of Vocational Educational Modules and use of Haptic Devices – Virtual Laboratories and VLSI and Embedded Systems, Mizoram University

IIT, Delhi was requested vide MHRD's letter dated 29th June, 2011 for recommendations of the expert committee for evaluating the above pilot project. In this connection the technical evaluation made by IIT, Delhi in respect of VJTI, Mumbai, NIST, Behrampur and GP Pant Engg College, Delhi and the reports submitted are enclosed at **Appendix-9** for information.

Item No.10

Management Information System (MIS) of NMEICT – A presentation will be made by Prof.Uma Kanjilal, IGNOU

Prof. Uma Kanjilal made the presentation before the PAB in its 20th meeting held on 2nd May, 2011 highlighting various aspects of MIS being developed which include tracking of projects, monitoring and other relevant database creation.

PAB decided that this presentation may again be made in the next meeting of PAB.

Item No.11

Strengthening of the Standing Committee of NMEICT

In the last (20th) Meeting of the Project Approval Board of National Mission on Education through Information and Communication Technology (NMEICT), it was decided that all the approved procedure would be compiled together and would be circulated to all Members of PAB for further discussion in the next PAB meeting. The same is placed as **Appendix-10 Page No._____.**

There was a long discussion on the procedure followed by the Standing Committee in recommending project proposals. In order to ensure consistency in the evaluation of proposals, some minimal conditions need to be enforced on the Members of the Standing Committee who sign the Minutes.

- ➢ It is proposed that minimum of four Standing Committee Members who attended a minimum of 30% of last 12 months' meetings should be present, deliberate and recommend a proposal to be considered by the PAB.

- ➢ The existing method of evaluation on the basis of the ten-point scheme, which is based on the recommendation of the PAB in its 5th Meeting held on 21.05.2009 be continued.

Item No.12

Extension of pilot project, namely, "Establishing e-training environment for training technical teachers and students (creation of four courses)" sanctioned to National Institute of Technical Teachers Training and Research (NITTTR), Chennai.

Under the National Mission on Education through Information and Communication Technology (NMEICT) Scheme, an amount of Rs.28.00 lakhs was released to National Institute of Technical Teachers Training and Research (NITTTR), Chennai for executing the pilot project namely, "Establishing e-training environment for training technical teachers and students (creation of four courses)" vide sanction letter No.F.16-126/2009-DL dated 11.02.2010. The said pilot project was to be completed within one year.

NITTTR, Chennai has furnished a status report vide its letter dated 12.07.2011 and have also informed MHRD that NITTTR, Chennai is developing the simulation modules to enhance the understanding by the learners and the audio recording and integration work are to be completed. Under this circumstances, NITTTR, Chennai has requested that the project period may be extended upto 31.12.2011 so as to complete the project successfully in all respects.

PAB of NMEICT is requested to take a decision in the matter.

BUDGET ESTIMATES FOR TECHNICAL SUPPORT GROUP OF NATIONAL MISSION ON EDUCATION THROUGH ICT (NMEICT)

(Rs. In lacs)

I.   NON-RECURRING EXPENDITURE

S.No.	Name of Items / Description	F.Y. 2011-12 Total Cost
A	Computer Systems, laptops, printers and other Items for IT related area	31.11
B.	Procurement of Furniture	18.25
C	Procurement of Office Equipment	12.65
D.	Other Items	
E.	Software (Server 2008, MS Office 2007 & Anti Virus 40 users, etc.)	5.00
	Sub-Total (I)	**67.01**

II.   RECURRING EXPENDITURE

S.No.	Name of Items / Description	Total Cost
A.	Expenditure related to Recruitment of Consultants & Support Staff	15.00
B.	Consultancy Fee & Salary	132.12
C.	State Visit/Field Visit/Consultants/Resource Persons	25.00
D.	National & Local Meetings / Seminar / Workshop & Documentation Expenses	104.00
E.	Administrative/TSG Expenses	61.90
F.	Contingency for items other than mentioned above	10.00
	Sub-Total – (II)	348.02
	Total – (I) & (II)	415.03
III	EdCIL's Overheads & Service Charges @ 5%	20.60
	Grand Total	**435.63**

BUDGET ESTIMATES FOR TECHNICAL SUPPORT GROUP/MISSION SECRETARIAT (NMEICT)

I.   Non-Recurring Expenditure

(Rs. In lacs)

S.No.	Name of Items / Description	F.Y. 2011-12		
		Qty. (Nos.)	Unit Cost	Total Cost
A	**Procurement of Items for IT related area**			
1.	Computer Desktops	12	0.45	5.40
2.	Laptops	10	0.55	5.50
3.	Intel Xeon 3.0 GHz 5450 Processor (server for connectivity with computers & laptops for accessing Internet & for back-up data etc.)	02	5.00	10.00
4.	Networking for 48 Ports / LAN Cabling, Switches, Rack other related work for all computers, servers etc.	01	4.00	4.00
5.	UPS 1/5 KVA for Power Back-up for Computers & Printers, etc.	27	0.08	2.16
6.	**PRINTERS**			
(i)	Network Printer (Heavy Duty)	04	0.45	1.80
(ii)	Black & White Laser Jet Printer	05	0.25	1.25
7.	Modem for internet connection	10	0.10	1.00
B.	**Procurement of Furniture**			
8.	Executive Tables	08	0.20	1.60
9.	Standard Tables	24	0.12	2.88
10.	Executive Chairs	10	0.12	1.20
11	Staff Chairs	24	0.06	1.44
12	Visitor Chairs	20	0.05	1.00
13	Conference Table & Chairs	L.S.	L.S.	2.60
14	R.O. System for drinking water/Water Dispenser	01	0.25	0.25
15.	Heat Convectors	10	0.02	0.20
16.	Hot Case/O.T.G.	01	0.20	0.20
17.	Refrigerator (full size)	01	0.20	0.20
18.	Sofa Sets & Central Table	02	0.25	0.50
19.	Canteen Items (Crockery & Utensils)	L.S.	L.S.	0.50
20.	Video Conferencing Facility	01	4.00	4.00
21.	Carpets	L.S.	L.S.	0.50
22.	Internal Furnishings including Curtains, other items as per requirement after accommodation is finalized.	L.S.	L.S.	1.18
C	**Procurement of Office Equipment**			
23	EPABX System	01	1.50	1.50
24.	ADF Scanner [HP/Samsung]	01	0.40	0.40
25.	Plastic Trays, Glasses, Waste Paper Baskets	L.S.	0.25	0.25
26.	Shredders	02	0.25	0.50
27.	Photocopier Machines	02	2.50	5.00
28.	DG Set 40 KVA	01	L.S.	5.00
D.	**Other Items**			
29	Softwares (Server 2008, MS Office 2007 & Anti Virus 40 users, etc.)	L.S.	L.S.	5.00
	Sub-Total (I) (Non-Recurring Expenditure)			67.01

BUDGET ESTIMATES FOR TECHNICAL SUPPORT GROUP/MISSION SECRETARIAT (NMEICT)

II.   RECURRING EXPENDITURE

(Rs. In lacs)

S.No.	Name of Items / Description	F.Y. 2011-12		
		Qty. (Nos.)	Unit Cost	Total Cost
A.	**Expenditure related to Recruitment of Consultants & Support Staff**			
1.	Release of reflective advertisement on All India basis in all edition of TOI/H.T.	L.S.	L.S.	10.00
2.	Expert Fee for Resource persons for the Interview, meeting expenses & local conveyance etc. as per Government of India's norms or as approved by PAB.	L.S.	L.S.	5.00
B.	**Consultancy Fee & Salary**			
3.	**CONSULTANTS/PROJECT MANAGER ETC.**			
(i)	Senior Consultant	06	0.75	54.00
(ii)	Consultants/Jr. Consultants	04	0.50	24.00
(ii)	Project Manager (Technical-IT) – on contract	01	0.50	6.00
(iii)	Project Manager (TSG) (Level Manager, EdCIL)	01	0.60	7.20
4.	**Support Staff** – for TSG/Mission Secretariat			
(i)	Category-I: Executive Asstt., Private Secretary, Supervisor	04	0.40	19.20
(ii)	Category-II: Executive Asstt.,/W.P.O.	10	0.15	18.00
(iii)	Cat.-III: Messenger	04	0.08	3.72
C.	**State Visit/Field Visit/Consultants/Resource Persons**			
5.	Boarding/Lodging/TA/DA for Consultants & Resource Persons for Visit / Field Visit, etc. as per Government of India's norms	100	0.25	25.00
6.	**Meeting / Seminar / Workshop expenses**			
(i)	Meetings/Workshops (50 to 60 persons) – within Delhi	24	2.00	48.00
(ii)	National Level Meetings (50 to 60 persons)	12	3.00	36.00
7.	Studies, Data Collections & Analysis, Report writing, Misc. work	L.S.	L.S.	10.00
8.	Documentation, Printing of Reports, Newsletter, Leaflets, Flyers & Other Contingency.	L.S.	L.S.	10.00
D.	**Administrative Expenses**			
9.	Rent for Building	12 months	2.00	24.00
10.	Security	L.S.	L.S.	1.00
11.	House – Keeping	L.S.	L.S.	1.00
12.	Canteen	L.S.	L.S.	1.00
13.	Electricity & Water Charges	L.S.	L.S.	3.00

14.	Telephone, Fax & Internet charges	L.S.	L.S.	3.00
15	Printing of Brochures / other printing	L.S.	L.S.	3.00
16	Office Stationery (consumables)	L.S.	L.S.	3.00
17.	Local conveyance, OTA, PF, Honorarium for staff	L.S.	L.S.	5.00
18.	Postage charges	L.S.	L.S.	3.00
19.	Diesel for DG Set	L.S.	L.S.	3.00
20.	Newspaper, Magazine, Reports, CD, etc.	L.S.	L.S.	2.00
21.	Photocopying & Binding charges (material for machine)	L.S.	L.S.	1.00
22.	Legal & Audit Expenses	L.S.	L.S.	0.50
23.	Vehicle on monthly basis (Ford Ikon/Esteem etc. – average hiring charges basis)	02	0.35	8.40
24.	Contingency for items other than mentioned above	L.S.	L.S.	10.00
	Sub-Total – (I) Recurring Expenditure			348.02
	Add: Sub-Total (II) Non-recurring Expenditure			67.01
	Total – (i) & (ii)			415.03
	EdCIL's Overheads & Service Charges @ 5%			20.60
	Grand Total			**435.63**

Note:

1. The un-utilized funds, if any, will be carried over to the next financial year and will be utilized for various activities of TSG / Mission Secretariat.

2. Service Tax @10.60% or actual.

File No.NMEICT (MS)/PAB/21
Government of India
Ministry of HRD
Department of Higher Education

****

9th August, 2011

To

All Members of Empowered Committee of Experts
(Project Approval Board) of National Mission on
Education through Information and Communication
Technology (As per list enclosed)

Sub: **Additional Agenda** Papers for 21st Meeting of the Empowered Committee
of Experts (Project Approval Board) of National Mission on Education
through Information and Communication Technology (NMEICT) to be held
on 11th August, 2011 at 4.00 p.m. in Conference Room No.112-C-Wing, Shastri
Bhavan, New Delhi.

Sir/Madam,

Enclosed please find **Additional Agenda** Papers for 21st Meeting of the
Empowered Committee of Experts (Project Approval Board) of National Mission
on Education through Information and Communication Technology (NMEICT) to
be held on 11th August, 2011 at 4.00 p.m. under the Chairpersonship of
Secretary, Department of Higher Education, Ministry of Human Resource
Development in Conference Room No.112-C-Wing, Shastri Bhavan, New Delhi.

Yours faithfully,

(A.K. Singh)
Director (ICT)
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 20th MEETING OF PROJECT APPROVAL BOARD OF NATIONAL MISSION ON EDUCATION THROUGH INFORMATION AND COMMUNICATION TECHNOLOGY HELD ON 2nd May, 2011 AT 3.00 P.M. IN CONFERENCE ROOM (FIRST FLOOR), CENTRAL SECRETARIAT LIBRARY (CSL) BUILDING, SHASTRI BHAWAN, NEW DELHI

The 20th Meeting of the Empowered Committee of Experts (Project Approval Board) (PAB) of National Mission on Education through Information & Communication Technology was held on 2nd May, 2011 at 3.00 p.m. in Conference Room, Central Secretariat Library (CSL), Building, Shastri Bhavan, New Delhi under the Chairpersonship of Secretary, Department of Higher Education.

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

Mrs.Vibha Puri Das, Secretary, Department of Higher Education welcomed all the participants. Thereafter, agenda for the meeting was adopted, excepting Agenda Item No.3 on Strengthening Standing Committee of NMEICT (circulated during the meeting) which was withdrawn. Thereafter, the agenda items were discussed and the following decisions were taken:

Item No.1:

Chairperson requested all the members to give their comments on the Minutes of the 19th PAB Meeting. No comments were received. Thereafter, the Minutes of the 19th Meeting of the Project Approval Board held on 15th March, 2011 were confirmed.

Item No.2

The Action Taken Report on the Minutes of the 19th Meeting of the Project Approval Board held on 15th March, 2011 was noted by the PAB.

Item No.3

Strengthening of the Standing Committee of NMEICT

This item was briefly discussed without any agenda (since this was withdrawn). The PAB deliberated upon the existing procedure being followed by Standing Committee, including the current size of Standing Committee, for scrutinizing the proposals received under the Mission. It was decided that all the approved procedure would be compiled together and would be circulated to all members of PAB for further discussion in the next PAB meeting.

Item No.4

Low Cost Access-cum-Computing Device – Future Roadmap and Strategy

Dr.Prem K.Kalra, Director, IIT Rajasthan and his colleagues made a presentation on the progress so far made in this regard, highlighting various aspects of LCAD and its timelines for procurements and field trials.

In the said presentation, the represenative of IIT Rajasthan, inter-alia, informed about procurement and field testing of these devices for which order has been placed and the devices are to be delivered in the near future. He further informed that the aim is to bring the cost of SoC (System on Chip) down while increasing its functionality.

Item No.5

Directions of PAB in cases where Principal Investigators (PIs) are no longer in the institutions concerned

PAB deliberated on the issue and decided that such cases may first be referred to Standing Committee and its views/comments/recommendations may be placed before PAB for decision. PAB also directed that SC may also explore the possibilities of adjudicating whether Co-PI can carry forward the project in the event of PI leaving the institute. PAB further directed that any person should not be more than 70 years of age to become PI.

Item No.6

Extension of pilot project, namely, Benchmarking of Information and Communication Technology modules in Physics and Chemistry - IIT, Kanpur

Dr.Raj Thareja from IIT, Kanpur presented his case before the PAB and explained the progress so far made and the bottlenecks encountered. He assured completion of the project by 31st March, 2012. PAB decided to extend the project upto 31st March, 2012.

Item No.7

Connectivity to multi-campus universities under NMEICT Scheme

PAB deliberated on this and decided that BSNL/MTNL may provide the connectivity to universities having multi-campuses by suitably dividing the overall 1Gbps connectivity, on receipt of formal request, and subject to additional payment by the university concerned. PAB made it clear that Central Government shall not bear any additional cost in this regard. BSNL representatives indicated that the additional payment would be Rs.20 lac per additional campus for the 10 year duration.

Item No.8

Reimbursement of expenses incurred by NIT, Kurukshetra

PAB approved the proposal.

Item No.9

UGC proposal – funding of a new project

Convener, Standing Committee informed PAB that the proposal of UGC needs to be firmed up. While PAB was of the view that there is a need for an over-arching body like UGC to supervise and create e-content, especially in humanities and arts, the expertise needed is also of paramount importance. Therefore, UGC may firm up its proposal and submit the same to the Mission. Planning Commission representative reiterated the need for ensuring that the Mission covers all disciplines including arts, humanities, social sciences and others as laid down in its mandate and avoid the possibilities of over-emphasis on pure and applied sciences and engineering and technology. Hence, it is expected that UGC can play a crucial role in ensuring development of e-content in these disciplines.

Item No.10

Virtual Labs - Remote triggered experiments

Prof. Ranjan Bose, IIT, Delhi briefly informed PAB of the status. PAB decided that the proposal may first be examined and scrutinized by the Standing Committee and its recommendations may be placed before PAB.

Item No.11

Presentation by BSNL

Shri Anil Jain from BSNL made a presentation, indicating the current status of connectivity to universities and colleges. During the said presentation, it was mentioned that as on date 336 universities have been connected/configured and 11,433 colleges have been connected by BSNL. The representative of BSNL also apprised PAB of the progress of tender evaluation (technical) for providing LAN. It was mentioned that the tender evaluation is near completion and LAN implementation is likely to start in June, 2011 and expected to be completed by December, 2011. Expected deliverables from universities for LAN implementation such as designating Nodal Officers from universities to supervise LAN implementation, survey of LAN component requirements including the nodes and requirement for LAN by the universities were also mentioned during the presentation. Besides these, some difficulties being faced by BSNL with regard to providing connectivity were also mentioned. PAB noted the information provided during the presentation and decided to discuss issues yet to be resolved with the universities by BSNL during the West Zone Meeting of VCs of universities and Directors of NITs.
PAB noted this.

Item No.12

Management Information System (MIS) of NMEICT – A presentation by Prof. Uma Kanjilal, IGNOU

Prof. Uma Kanjilal made a presentation, highlighting various aspects of MIS being developed which include tracking of projects, monitoring and other relevant database creation. PAB decided that this presentation may again be made in the next meeting of PAB.

Additional Agenda

Additional Item No.1

Approval of New Projects recommended by Standing Committee

The items were deferred for the next meeting.

Additional Item No.2

Salary of Consultants

After deliberations PAB approved a consolidated remuneration up to Rs.75,000/- p.m. for senior consultants. PAB further decided that if a pensioner is engaged as Consultant or Senior Consultant etc, his pension will be adjusted as per existing norms.

Additional Item No.3

Office Premises for Mission Secretariat of NMEICT

PAB noted the information and also requested Vice-Chancellor, IGNOU to expedite the matter. VC, IGNOU assured to make available the space for Mission Secretariat of NMEICT at the earliest.

Additional Item No.4

Project awarded to IIT, Kharagpur

PAB felt that this project for developing suitable pedagogical techniques is of unique nature and some kind of relaxation could be considered while applying the norms with regard to payment of honorarium. The 10% project cost cap on total honorarium component for all experts may not be applicable to this project. Additionally, partial payment may be allowed if significant progress has already been made and undertaking for completion is given by the concerned experts. PAB, therefore, decided that extension of the project be granted upto 31st March, 2012. PAB also decided that in no case, three months' salary will be exceeded while making payment on account of honorarium. The release of next installment may be considered on receipt of utilization certificate for the earlier grant and other required documents.

There being no other item, the meeting ended with a Vote of Thanks to the Chair.

Attendance of the 20th Meeting of the Project Approval Board (PAB) of the National Mission on Education through Information & Communication Technology (NMEICT) held on 2nd May, 2011 at 3.00 p.m. under the Chairpersonship of Secretary, Department of Higher Education, Ministry of Human Resources Development in Conference Room (1st Floor) Central Secretariat Library (CSL) Building Shastri Bhawan, New Delhi

S.No.	Name, Designation and Address	Phone No., Fax and Email
1	Ms. Vibha Puri Das Secretary (HE) MHRD, Shastri Bhawan, New Delhi	**Chairperson**
2	Shri. N.K.Sinha Additional Secretary(TEL) Department of Higher Education, MHRD, Shastri Bhawan, New Delhi	23387781 nksinha.edu@nic.in
3	Shri S.K. Ray AS & FA Ministry of Human Resources Development Shastri Bhawan New Delhi	9868886588 skray@nic.in
4	Shri R.P Agrawal Chairman BOG IIT, Delhi 31, Greenwoods Society Phase 2, Sector Omega 1 Pocket P2 Greater Noida-201308	9910823311 rpa1949@gmail.com
5	Prof. V.N. Rajashekharan Pillai Vice- Chancellor Indira Gandhi National Open University (IGNOU) New Delhi	vc@ignou.ac.in vnr.pillai@ignou.ac.in 011-29532484 9810982888
6	Shri N. Ravi Shankar Joint Secretary DIT	nravishankar@nic.in 011-24363124 9811885279
7	Prof. S. Prasad Director IIT, Delhi Hauz Khas New Delhi	director@admin.iitd.ac.in sprasad@ee.iitd.ac.in

8	Prof.Prem K. Kalra Director , IIT Rajasthan Camp off: MBM engineering college. Residency Road, Jodhpur 342011	0291-2512141/2516823 E-mail: kalra@iitk.ac.in and iitj@iitk.ac.in
9	Dr. M.D.Tiwari Director IIIT Allahabad Deoghat, Jhalwa Allahabad	mdt@iiita.ac.in 0532-2922222 09415235175
10	Prof. Govindan Rangarajan Professor IIsc, Bangalore-560012	govindan.rangarajan@gmail.com 09449044736
11	Shri G. Panda Deputy Director IIT, Bhubaneswar Orrisa	ganapati.panda@gmail.com gpanda@iitbbs.ac.in 09437048906
12	Ms. Shakila Shamsu Joint Advisor (HRD) Planning Commission	shakilat.shamsu@nic.in 011-23096766 9910370499
13	Shri Ajay Khare Director S.P.A, Bhopal	director@spabhopal.ac.in 09425019780 0755-2671120
14	Prof. Ajit Kumar Kolar Chairman Centre for Continuing Education IIT, Madras **Representing-**Prof. MS Ananth, Director, IITM	044-22574901 09444008700 kolar@iitm.ac.in
15	Prof. Vinod Kumar Professor & Head Elect. Engg. Deptt. IIT, Roorkee **Representing-** Director, IITR	vinodfee@iitr.ernet.in 09412074172
16	Prof. D.V. Khakhar IIT, Bombay	director@iitb.ac.in
17	Shri A.K. Singh Director (ICT) Deptt. of Higher Education Ministry of HRD Shastri Bhawan New Delhi-110001	011-23384276 011-23384276 09968720084 anandksingh.edu@nic.in
18	Shri Navin Soi Director (Finance) MHRD New Delhi	
19	Shri Anil Jain Sr.GM (NWP-BB) B.S.N.L	akjain@bsnl.co.in 011-23734057 9868887007

20	Prof. Uma Kanjilal Professor School of Social Sciences IGNOU	9810488895 umakanjilal@ignou.ac.in
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25	Shri G. Brahhaiah DGM, NOC BSNL Bangalore	gbrahmaiah@bsnl.co.in 09448010320
26	Shri K. Raja Sekhar Addl. GM, STP Hyderabad BSNL	dgmofchyd@gmail.com 09490000248
27	Shri Raj Kumar Under Secretary Department of Higher Education Room No. 225 "C" Wing MHRD, Shastri Bhawan New Delhi	23384187 raj64in@indiatimes.com
28	Shri R.K. Thareja Deputy Director IIT, Kanpur	thareja@iitk.ac.in 0512-2597760 09450938765
29	Prof. C.S. Kumar Associate Professor, Mech Engg Dept. IIT, Kharagpur & Discipline National Coordinator Virtual Labs IIT, Kharagpur West Bengal- 721302	kumar@mech.iitkgp.ernet.in 09434005819
30	Prof. Siddhartha Das Professor & Head Dept of Metallurgical & Materials Engg. IIT, Kharagpur Kharagpur - 721302	sdas@netak.iitkgp.ernet.in sdas.iitkgp@gmail.com 03222-283256 09434016998

31	Prof. Ranjan Bose IIT, Delhi	9818253072 rbose.iitd@gmail.com
32	Prof. Kannan Moudgalya IIT, Bombay	9869326979 022-25767213 kannan@iitb.ac.in
33	Prof. K.R. Srivathsan Pro Vice Chancellor IGNOU	srivathsan@ignou.ac.in 9968664425
34	Prof. P.S. Robi Dean R&D IIT, Guwahati	psr@iitg.ernet.in 09957557637
35	Shri K. Santeppa Scientist G ANURAG, DRDO Kanllanbagh PO Hyderabad- 500058	ksanteppa@anurag.drdo.in 09490192512
36	Dr. Mahesh Abegaonkar IIT, Delhi	9891079034 011-26596281 011-26596219 9891079034 mpjosh@care.iitd.ac.in
37	Prof. Sameer Khandekar Associate Professor IIT, Kanpur	samkhan@iitk.ac.in 0512-2597038 09984654833
38	Prof Anupam Gupta IIT, Rajasthan	ag@iitj.ac.in
39	Dr. Sandeep Yadav Assistant Professor Indian Institute of Technology, Rajasthan	sy@iitj.ac.in 09414034601
40	Prof. Venkatesh Choppella IIIT, Hyderabad	040-66531443 09652740281 venkatesh.choppella@iiit.ac.in
41	Prof Jayanthi Sivaswamy Professor IIIT, Hyderabad	jsivaswamy@iiit.ac.in 09701641232
42	Soami P. Satsangee USIC Dayalbagh Educational Institute Dayalbagh Agra	deiusic@gmail.com 09760230620
43	Prof. C.M. Markan Associate Professor Dept of Physics & Computer Science Dayalbagh Educational Institute Dayalbagh Agra	cm.markan@gmail.com 09557790100

44	Dr. P. Venkat Rangan Vice Chancellor Amrita Viswa Vidyapeetham Amritapuri Kerala	venkat@amrita.edu 0422-2685888 09415235175
45	Prof. Bipin Nair Professor & Dean Amrita School of Biotechnology Amrita University	bipin@amrita.edu 0476-2899722 09895036316
46	Prof. Kamal Bijlani Amrita University Kollam Kerala	09447571000 kamal@amrita.edu
47	Prof. Krishnashree A. Amrita University	krishna@amrita.edu 09895483974

ACTION TAKEN NOTE ON THE

20th MEETING OF PROJECT APPROVAL BOARD OF NATIONAL MISSION ON EDUCATION THROUGH INFORMATION AND COMMUNICATION TECHNOLOGY HELD ON 2ND MAY, 2011

Item No.	Action Taken
Item No.1: Chairperson requested all the members to give their comments on the Minutes of the 19th PAB Meeting. No comments were received. Thereafter, the Minutes of the 19th Meeting of the Project Approval Board held on 15th March, 2011 were confirmed.	Minutes confirmed
Item No.2 The Action Taken Report on the Minutes of the 19th Meeting of the Project Approval Board held on 15th March, 2011 was noted by the PAB.	Noted please.
Item No.3 **Strengthening of the Standing Committee of NMEICT** This item was briefly discussed without any agenda (since this was withdrawn). The PAB deliberated upon the existing procedure being followed by Standing Committee, including the current size of Standing Committee, for scrutinizing the proposals received under the Mission. It was decided that all the approved procedure would be compiled together and would be circulated to all members of PAB for further discussion in the next PAB meeting.	Put up as separate Agenda Item.
Item No.4 **Low Cost Access-cum-Computing Device – Future Roadmap and Strategy** Dr.Prem K.Kalra, Director, IIT Rajasthan and his colleagues made a presentation on the progress so far made in this regard, highlighting various aspects of LCAD and its timelines for procurements and field trials. In the said presentation, the representative of IIT Rajasthan, inter-alia, informed about procurement and field testing of these devices for which order has been placed and the devices are to be delivered in the near future. He further informed that the aim is to bring the cost of SoC (System on Chip) down while increasing its functionality.	Noted please.
Item No.5 **Directions of PAB in cases where Principal Investigators (PIs) are no longer in the institutions concerned** PAB deliberated on the issue and decided that such cases may first be referred to Standing Committee and its views/comments/recommendations may be placed before PAB for decision. PAB also directed that SC may also explore the possibilities of adjudicating whether Co-PI can carry forward the project in the event of PI leaving the institute. PAB further directed that any person should not be more than 70 years of age to become PI.	The matter has been discussed by Standing Committee and recommendations of SC will be put up separately.

Item No.6 **Extension of pilot project, namely, Benchmarking of Information and Communication Technology modules in Physics and Chemistry - IIT, Kanpur** Dr.Raj Thareja from IIT, Kanpur presented his case before the PAB and explained the progress so far made and the bottlenecks encountered. He assured completion of the project by 31st March, 2012. PAB decided to extend the project upto 31st March, 2012.	Extension letter has been issued
Item No.7 **Connectivity to multi-campus universities under NMEICT Scheme** PAB deliberated on this and decided that BSNL/MTNL may provide the connectivity to universities having multi-campuses by suitably dividing the overall 1Gbps connectivity, on receipt of formal request, and subject to additional payment by the university concerned. PAB made it clear that Central Government shall not bear any additional cost in this regard. BSNL representatives indicated that the additional payment would be Rs.20 lac per additional campus for the 10 year duration.	Noted please.
Item No.8 **Reimbursement of expenses incurred by NIT, Kurukshetra** PAB approved the proposal.	Noted please.
Item No.9 **UGC proposal – funding of a new project** Convener, Standing Committee informed PAB that the proposal of UGC needs to be firmed up. While PAB was of the view that there is a need for an over-arching body like UGC to supervise and create e-content, especially in humanities and arts, the expertise needed is also of paramount importance. Therefore, UGC may firm up its proposal and submit the same to the Mission. Planning Commission representative reiterated the need for ensuring that the Mission covers all disciplines including arts, humanities, social sciences and others as laid down in its mandate and avoid the possibilities of over-emphasis on pure and applied sciences and engineering and technology. Hence, it is expected that UGC can play a crucial role in ensuring development of e-content in these disciplines.	Put up as separate Agenda Item.
Item No.10 **Virtual Labs - Remote triggered experiments** Prof. Ranjan Bose, IIT, Delhi briefly informed PAB of the status. PAB decided that the proposal may first be examined and scrutinized by the Standing Committee and its recommendations may be placed before PAB.	Put up as separate Agenda Item.

Item No.11 **Presentation by BSNL** Shri Anil Jain from BSNL made a presentation, indicating the current status of connectivity to universities and colleges. During the said presentation, it was mentioned that as on date 336 universities have been connected/configured and 11,433 colleges have been connected by BSNL. The representative of BSNL also apprised PAB of the progress of tender evaluation (technical) for providing LAN. It was mentioned that the tender evaluation is near completion and LAN implementation is likely to start in June, 2011 and expected to be completed by December, 2011. Expected deliverables from universities for LAN implementation such as designating Nodal Officers from universities to supervise LAN implementation, survey of LAN component requirements including the nodes and requirement for LAN by the universities were also mentioned during the presentation. Besides these, some difficulties being faced by BSNL with regard to providing connectivity were also mentioned. PAB noted the information provided during the presentation and decided to discuss issues yet to be resolved with the universities by BSNL during the West Zone Meeting of VCs of universities and Directors of NITs. PAB noted this.	Noted please.
Item No.12 **Management Information System (MIS) of NMEICT – A presentation by Prof. Uma Kanjilal, IGNOU** Prof. Uma Kanjilal made a presentation, highlighting various aspects of MIS being developed which include tracking of projects, monitoring and other relevant database creation. PAB decided that this presentation may again be made in the next meeting of PAB.	Included as Agenda Item
Additional Agenda **Additional Item No.1** **Approval of New Projects recommended by Standing Committee** The items were deferred for the next meeting.	Included as Agenda Item
Additional Item No.2 **Salary of Consultants** After deliberations PAB approved a consolidated remuneration up to Rs.75,000/- p.m. for senior consultants. PAB further decided that if a pensioner is engaged as Consultant or Senior Consultant etc, his pension will be adjusted as per existing norms.	Noted please.

Additional Item No.3 **Office Premises for Mission Secretariat of NMEICT** PAB noted the information and also requested Vice-Chancellor, IGNOU to expedite the matter. VC, IGNOU assured to make available the space for Mission Secretariat of NMEICT at the earliest.	The Office Accommodation for Mission Secretariat has been provided by VC, IGNOU. The Office of Mission Secretariat has been shifted to IGNOU Camps and started functioning w.e.f. 6th July, 2011.
Additional Item No.4 **Project awarded to IIT, Kharagpur** PAB felt that this project for developing suitable pedagogical techniques is of unique nature and some kind of relaxation could be considered while applying the norms with regard to payment of honorarium. The 10% project cost cap on total honorarium component for all experts may not be applicable to this project. Additionally, partial payment may be allowed if significant progress has already been made and undertaking for completion is given by the concerned experts. PAB, therefore, decided that extension of the project be granted upto 31st March, 2012. PAB also decided that in no case, three months' salary will be exceeded while making payment on account of honorarium. The release of next installment may be considered on receipt of utilization certificate for the earlier grant and other required documents.	Extension letter as well as sanction letter for releasing Rs.2.50 crore to IIT, Kharagpur has been issued.

Brief about the Standing Committee for perusal of PAB members

As per the Minutes of the 20th Meeting of the Project Approval Board (PAB) of National Mission on Education through Information & Communication Technology (NMEICT) held on 2nd May, 2011(relevant extract at **Annexure I**) for Item No.3 – Strengthening of the Standing Committee of NMEICT, it was decided that approved procedure would be compiled together and would be circulated to all members of PAB for further discussion in the next PAB meeting. In this regard, following is submitted:-

1. The PAB of NMEICT in its meeting held on 17th March, 2009 decided that a Standing Committee may be constituted by the Chairperson of the PAB to examine and scrutinize content related proposals with technical experts being co-opted, if required, and give its recommendations to the PAB for their consideration and approval.

2. In pursuance of the above decision, a Standing Committee of 28 members was constituted by the Secretary, Department of Higher Education, MHRD with Prof. Prem K. Kalra from IIT, Kanpur as the convener of the Standing Committee as per the Office Order No. 16-24/2009-DL dated 19.03.2009(copy enclosed as **Annexure II**). As per the Order, the Committee will submit its recommendations from time to time to the PAB for its consideration and decision on various proposals. Further, as per Office Order No. 16-56/2009-DL dated 09.06.2009(copy enclosed as **Annexure III**), two more members were also included in the Standing Committee. In 2010, the Standing Committee was further expanded with the approval of the Secretary, Department of Higher Education, MHRD and a revised list of Standing Committee members for 2010-11 is enclosed as **Annexure-IV.** Formal orders for the revised list of SC Members were not issued.

2. The Guidelines for Development, Assessment, Monitoring the progress and Evaluation of outcome of projects submitted for assistance to MHRD under the NMEICT project were also framed as per the discussions in the 7th PAB Meeting (copy of minutes is enclosed as **Annexure-V**) and a copy of the Guidelines with regard to Evaluation of Proposals is enclosed as **Annexure-VI.**

3. A brief about NMEICT scheme and various committees along with their functions and powers is enclosed as **Annexure-VII**.

4. Members of the PAB are requested to peruse these documents so that the issue of strengthening the Standing Committee further may be discussed in the next meeting of the PAB.

File No.NMEICT(MS)/PAB/20
Government of India
Ministry of Human Resource Development
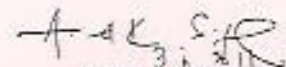Department of Higher Education

3rd June, 2011

All Members of Project Approval Board of
National Mission on Education through Information
and Communication Technology
(As per list enclosed)

Sub: Minutes of the 20th Meeting of Project Approval Board of National
Mission on Education through Information and Communication
Technology held on 2nd May, 2011

Sir/Madam,

Enclosed please find Minutes of the 20th Meeting of the Project
Approval Board (PAB) of National Mission on Education through Information
and Communication Technology (NMEICT) held on 2nd May, 2011 at 3.00
p.m. in Conference Room (First Floor), Central Secretariat Library (CSL)
Building, Shastri Bhavan, New Delhi under the Chairpersonship of Secretary,
Department of Higher Education for information and necessary action.

Yours faithfully,

(A.K.Singh)
Director (ICT)
Tel: 011-2334276

Copy to:

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

MINUTES OF 20th MEETING OF PROJECT APPROVAL BOARD OF NATIONAL MISSION ON EDUCATION THROUGH INFORMATION AND COMMUNICATION TECHNOLOGY HELD ON 2nd May, 2011 AT 3.00 P.M. IN CONFERENCE ROOM (FIRST FLOOR), CENTRAL SECRETARIAT LIBRARY (CSL) BUILDING, SHASTRI BHAWAN, NEW DELHI

The 20th Meeting of the Empowered Committee of Experts (Project Approval Board) (PAB) of National Mission on Education through Information & Communication Technology was held on 2nd May, 2011 at 3.00 p.m. in Conference Room, Central Secretariat Library (CSL), Building, Shastri Bhawan, New Delhi under the Chairpersonship of Secretary, Department of Higher Education.

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

Mrs.Vibha Puri Das, Secretary, Department of Higher Education welcomed all the participants. Thereafter, agenda for the meeting was adopted, excepting Agenda Item No.3 on Strengthening Standing Committee of NMEICT (circulated during the meeting) which was withdrawn. Thereafter, the agenda items were discussed and the following decisions were taken:

Item No.1:

Chairperson requested all the members to give their comments on the Minutes of the 19th PAB Meeting. No comments were received. Thereafter, the Minutes of the 19th Meeting of the Project Approval Board held on 15th March, 2011 were confirmed.

Item No.2

The Action Taken Report on the Minutes of the 19th Meeting of the Project Approval Board held on 15th March, 2011 was noted by the PAB.

Item No.3

Strengthening of the Standing Committee of NMEICT

This item was briefly discussed without any agenda (since this was withdrawn). The PAB deliberated upon the existing procedure being followed by Standing Committee, including the current size of Standing Committee, for scrutinizing the proposals received under the Mission. It

1

was decided that all the approved procedure would be compiled together and would be circulated to all members of PAB for further discussion in the next PAB meeting.

Item No.4

Low Cost Access-cum-Computing Device – Future Roadmap and Strategy

Dr.Prem K.Kalra, Director, IIT Rajasthan and his colleagues made a presentation on the progress so far made in this regard, highlighting various aspects of LCAD and its timelines for procurements and field trials.

In the said presentation, the representive of IIT Rajasthan, inter-alia, informed about procurement and field testing of these devices for which order has been placed and the devices are to be delivered in the near future. He further informed that the aim is to bring the cost of SoC (System on Chip) down while increasing its functionality.

Item No.5

Directions of PAB in cases where Principal Investigators (PIs) are no longer in the institutions concerned

PAB deliberated on the issue and decided that such cases may first be referred to Standing Committee and its views/comments/recommendations may be placed before PAB for decision. PAB also directed that SC may also explore the possibilities of adjudicating whether Co-PI can carry forward the project in the event of PI leaving the institute. PAB further directed that any person should not be more than 70 years of age to become PI.

Item No.6

Extension of pilot project, namely, Benchmarking of Information and Communication Technology modules in Physics and Chemistry - IIT, Kanpur

Dr.Raj Thareja from IIT, Kanpur presented his case before the PAB and explained the progress so far made and the bottlenecks encountered. He assured completion of the project by 31st March, 2012. PAB decided to extend the project upto 31st March, 2012.

No. 16-24/2009-DL
Government of India
Ministry of Human Resource Development
Department of Higher Education
[Distance Learning Division]

New Delhi, the 19th March, 2009

ORDER

In pursuance of the decisions taken by the Project Approval Board of National Mission on Education through Information and Communication Technology, in its meeting held on 17th March, 2009 at 3.30 p.m., a Standing Committee, comprising the following members is hereby constituted by the Secretary, Department of Higher Education, Ministry of Human Resource Development and the Chairperson, Project Approval Board, with immediate effect, to examine and scrutinize content related proposals with Domain Experts being co-opted, if required, and give its recommendations to the Project Approval Board for their consideration and approval :

Sl. No.	Name	Institute
1	Prof. S.C. Saxena, Director	IIT Roorkee
2	Dr. G.P. Srivastava, Associate Director	BARC, Mumbai
3	Prof. Prem K. Kalra	IIT, Kanpur – Convener
4	Prof N. Balakrishnan	IISc, Bangalore
5	Prof. S.V. Raghvan	IIT, Madras
6	Prof. Dilip Bandopadhyay, Vice Chancellor	GGIPU
7	Prof. Pami Dua	Delhi School of Economics
8	Mr. Rajiv Sinha, Managing Director	DSCL, New Delhi
9	Mr. R.S. Powar, Chairman	NIIT, New Delhi
10	Mr. Pradeep Verma	Knowledge On Line Pvt / Visiting Faculty – TERI
11	Dr. P. Nandini	Teri School of Advance Studies
12	Prof. Kushal Sen	IIT, Delhi
13	Prof. Mangal Sunder	IIT, Madras
14	Prof. A.K. Bakhashi	Delhi University
15	Prof. C.G. Mahajan	IISER, Mohali
16	Prof. Prasanna Venkaraman	Tata Cancer Research Institute Mumbai
17	Prof. Dhananjay Bhattacharya	Saha Institute of Nuclear Physics
18	Ms Uma Kanjilal	IGNOU
18	Dr. Pradeep Kaul	CEC

20	Prof. Kumareshu	JNU
21	Shri Jahid H. Khan, Director	CIT, Jamia
22	Prof. Kanan Moudgalaya	IIT, Bombay
23	Dr. P. Venkat Rangan, Vice Chancellor	Amrita University
24	Prof. Y.N. Singh	IIT, Kanpur
25	Prof. Kalyan Dutta	Jadavpur University
26	Prof. A.K. Tripathi [Computer Science]	IT BHU
27	Prof. Rajneesh Das	IIM, Ahmedabad
28	Representative of Bharat Electronics Ltd.	Bharat Electronics Ltd.

2. The above mentioned Standing Committee may deliberate through e-mail and also through periodic meetings at Delhi or any other place, for which TA/DA shall be payable from the Mission.

3. Dr. Prem K. Kalra from Indian Institute of Technology, Kanpur will be the Convener of the Standing Committee.

4. The Convener of the abovementioned Standing Committee will submit the recommendations of the Standing Committee from time to time to the Project Approval Board for its consideration and decision.

[N.K. Sinha]
Joint Secretary [DL] and
Member-Secretary, PAB

All Members of the Standing Committee

Copy to :   Secretary [Higher Education] & Chairperson, PAB – for information.

Copy also to :   All members of the Project Approval Board of National Mission on Education through Information and Communication Technology for information.

No.F.16-56/2009-DL
Government of India
Ministry of Human Resource Development
Department of Higher Education
Distance Learning Division

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ORDER   9th June, 2009

In pursuance of the decisions taken by the Project Approval Board (PAB) of National Mission on Education through Information and Communication Technology, in its meeting held on 20th April, 2009 at 3.30 p.m., the following experts are included in the Standing Committee w.e.f. that date itself, constituted vide Order bearing No. 16-24/2009-DL dated 19th March, 2009 (copy enclosed):

S.No.	Name	Institute
1	Prof. Sadanand More	Dept.of Philosophy University of Pune Ganeshkhind Road Pune
2	Prof. Jaishree Shinde	SNDT University Mumbai

(D.K. Paliwal)
Deputy Educational Adviser [DL]
Tel. No. 011 - 23385489

1. Prof. Sadanand More, University of Pune, Pune
2. Prof. Jaishree Shinde, SNDT University, Mumbai

Copy to:

1. Secretary (Higher Education) & Chairperson, PAB – for information.

2. All members of the Project Approval Board of National Mission on Education through Information and Communication Technology – for information.

3. All Members of the Standing Committee

4. File .No.16-24/2009-DL

National Mission on Education through IC

List of SC Members invited for SC Meetings during 2010 & 2011

1	Prof. Prem K. Kalra Director, Department of Electrical Engineering, IIT, Rajasthan.	Email: kalra@iitk.ac.in
2	Dr. G.P.Srivastava Director (E&I Group) BARC, Mumbai	gps@barc.gov.in,
3	Prof. Pami Dua Department o Economics, Delhi School of Economics, Delhi University Delhi-110007	dua@econdse.org,
4	Mr. Rajiv Sinha Managing Director, DSCL 5th & 6th Floor, Kanchanjunga Building Barakhamba Road, New Delhi-110001	rajivsinha@dscl.com,
5	Shri Pradeep Varma Visiting Faculty - TERI University Knowledge on Line Pvt	varma.pradeep@gmail.com,
6	Prof. Nandani Kumar Associate Professor, Department of Natural Resoures, TERI University, 10 Institutional Area, Vasant Kunj, New Delhi-110070	nandinik@teri.res.in,
7	Prof. Kushal Sen Faculty, Department of Textile Technology, IIT Delhi	kushal@textile.iitd.ac.in,
8	Prof. K. Mangala Sunder Professor 9IIT Madras (Deptt. Of Chemistry, IITM) Chennai – 600036	mangal@iitm.ac.in, mangala_sunderk@yahoo.com
9	Prof. A.K.Bakhshi Department of Chemistry, University of Delhi Delhi-110007	akbakhshi2000@yahoo.com
10	Prof. C.G. Mahajan Professor (Physics) IISER Mohali, MGSIPAP Complex, Sector – 26, Chandigarh – 160019	mahajancg@iisermohali.ac.in,
11	Prof. Prasanna Venkatraman KS 137, ACTREC Sector – 22, Kharghar Navi Mumbai – 410210	vprasanna@actrec.gov.in,

12	Prof. Dhananjay Bhattacharya Biophysics Division, Saha Institute of Nuclear Physics, Sector – I, Block – AF, Bidhannagar, Kolkatta – 700064	dhananjay.bhattacharyya@saha.ac.in,
13	Prof. Uma Kanjilal Professor Management of Libraries & Inf. Centres, Library Cataloguing and Classification, e-learning IGNOU, Maidan Garhi, New Delhi	ukanjilal@ignou.ac.in,
14	Prof. Karmeshu Compute Science Deptt. Professor School of Computer and Systems Sciences, Jawaharlal Nehru University, New Delhi – 110067	karmeshu@mail.jnu.ac.in, karmeshu@gmail.com,
15	Prof. Zahid H. Khan Director FTK-Centre for Information Technology Jamia Millia Islamia Jamia Nagar New Delhi – 110025, India	zhkhan-in@hotmail.com,
16	Prof. S. V. Raghvan Department of Computer Science and Engineering IIT, Madras, Chennai – 36	svr@cs.iitm.ernet.in,
17	Prof. Kannan Moudgalaya Professor Chemical Engg. IIT, Bombay, Room – 311, Powai Mumbai – 400076	kannan@che.iitb.ac.in,
18	Dr. P. Venkat Rangan Vice Chancellor Amrita Vishwa Vidyapeetham Ettimadai, Coimbatore – 641105	vcoffice@amrita.edu, venkat@amrita.edu,
19	Prof. Y. N. Singh Associate Professor Department of Electrical Engineering Indian Institute of Technology, Kanpur	ynsingh@iitk.ac.in,
20	Prof. Kalyan K. Dutta Professor of Electrical Engineering, School of Education Technology Jupiter Building Jadavpur University Kolkatta – 700 032	kkdatta@ee.jdvu.ac.in, kalyandatta@debesh.wb.nic.in,
21	Prof. A. K. Tripathi Professor Deptt. Computer Engineering IT BHU, Banaras Hindu University Varanasi	aktripathi.cse@itbhu.ac.in,
22	Prof. N. Balakrishnan Associate Director Department of Aerospace Engineering, Indian Institute of Science (IISc) Bangalore – 560012	balki@aero.iisc.ernet.in,

23	Prof. Rajneesh Das Wing 4E IIM, Ahmedabad Vastrapur Ahmedabad – 380015	rajanish@iimahd.ernet.in,
24	Shri Amol Newaskar General Manager (Export Manufacturing) Bharat Electronics Ltd. Jalahalli Post Bangalore – 560013 Or Shri K. C. Pandita Chief Scientist GRL – Ghaziabad Bharat Electronic Limited Central Research Laboratory Bharatnagar Post Ghaziabad – UP	panditakc@bel.co.in,
25	Prof. Jayashree Shinde SNDT University Mumbai	det@sndt.ac.in,
26	Dr. Sadanand More Deptt. Of Philosophy University of Pune Ganeshkhind Road Pune	sadanand.more@rediffmail.com,
27	Prof. Pradeep Kaul Jt. Director Consortium of Education Communications (CEC/UGC)	kaulp@rediffmail.com,
28	Vice-Chancellor Guru Gobind Singh I.P.Univesity Delhi	vcggsipu@gmail.com

Sl. No.	Name and Designation	Address	E-mail ID
29	Prof. L C Singh	(Recommended by NCTE, New Delhi) Address: B-5/134, Safdarjang Enclave New Delhi-110029 Ph: 9958670866	lcsinghphd@gmail.com
30	Prof. Vasudha Kamat Joint Director, CIET	NCERT, Sri Aurobindo Marg New Delhi-110016 Ph:9971555230	Vasudhak2000@gmail.com
31	Prof. M M Pant	(Recommended by National Council for Teachers Education, New Delhi) Address: F-57, Greenwood City, Sector – 46 Gurgaon-122001 Ph: 9810073724	mmpant@gmail.com mmpant@mmpant.org

32	Prof. B S Dagar	(Recommended by National Council for Teachers Education, New Delhi) Address: A-2/4, Agrasen Apartments Plot No. 10, Sector-7, Dwarka New Delhi-110075 Ph: 9891285284	nsd68@yhaoo.co.in
33	Dr. A K Bhatnagar	Dept of Biology University of Delhi Delhi Ph: 9810376885	akb_du@rediffmail.com
34	Dr. M V Rajam	Dept of Genetics University of Delhi Delhi Ph: 981810515	rajam.mv@gmail.com
35	Ms. Jayashree Srivastava	B-68, Sector -14, Noida Ph: 9810506883	jayashree.srivastava@gmail.com
36	Ms. Anuradha Sen	EQFI, Delhi Ph: 9810343688	senanuradha@hotmail.com
37	Dr. M V S V Prasad	Reader, DESSH, NCERT, Delhi Ph: 9818787123	mallaprasad@gmail.com
38	Ms. Deepa Kapur	B-7/2, Rana Pratap Bagh, Delhi-110007 Ph: 9810778837	deepa_sapra@yahoo.com
39	Dr. Tannu Malik	Reader in Geography, DESSH, NCERT, Delhi Ph: 26562582	tannu_malik@rediffmail.com dessh@indiatimes.com
40	Ms. Ambika Gulati	LCG-202 C, Laburnun, Sushant Lok Gurgaon Ph: 9810174230	ambikagulati@gmail.com
41	Mrs. Geeta Varshneya	Principal, DPS Ghaziabad G-128, Patel Nagar-III Ghaziabad Ph: 9958699955	gvarshneya@hotmail.com

42	Ms. Meenu Nandra Jog	Reader, DESSH, NCERT, Delhi Ph: 26562582	dessh@indiatimes.com minoo.nandrajog@rediffmail.com
43	Ms. Meena Goel,	Principal Navhind Girls Sr. Sec. Schoo, New Rohtak Road Delhi Ph: 9891176141	ashishgoel@email.com
44	Prof. N K Sehgal	A-94/1, SFS Flats, Saket New Delhi-110017 Ph: 9811998182	nk_sehgal@yahoo.com
45	Dr. V P Srivastava	515, Apno Enclave Sector -7, Dwarka New Delhi Ph: 9868547495	srivastava_vp@yahoo.co.uk
46	Sh. S K Munjal	124, West Mukherjee Nagar Delhi-110009 Ph: 9810247707	skmunjal2006@rediffmail.com
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MINUTES OF THE SEVENTH MEETING OF THE EMPOWERED COMMITTEE OF EXPERTS (PROJECT APPROVAL BOARD) OF THE NATIONAL MISSION ON EDUCATION THROUGH INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) HELD ON 2ND JULY, 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

The seventh 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 p.m. on 2nd July, 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 Annex-I.

3.   At out outset, Shri R.P. Agrawal, Secretary, Department of Higher Education, welcomed all the members and, thereafter, agenda items were discussed and the following decisions were taken:

Item No. 1

Shri J.S. Deepak, Joint Secretary [DoT] referred to the minutes of the 6th PAB meeting and requested for clarifications as follows:

i)   The meaning of flexibility to rope in Railtel and Power Grid as per local needs while drawing parallel from NKN.   He mentioned that factually speaking there was no BSNL led consortium in NKN. The work was being done by NIC, which had entrusted the job of providing connectivity individually to BSNL and other PSUs like Railtel etc. He wanted this point to be clarified.

ii)   He mentioned that for the NME-ICT the Implementation and Monitoring Committee would not be formed by DoT. Rather it should be formed by MHRD and DoT would be transferring money to BSNL on the recommendations of the Implementation and Monitoring Committee.

iii)   In the proposed MoU between BSNL-MTNL combine and the Colleges, the clause regarding free provision of space for erecting mobile towers by BSNL should be mentioned.

Joint Secretary [DL] informed the PAB that :

a)   Decision of PAB was to award work to BSNL-MTNL combine and not to a consortium as in the case of NKN. He further clarified that flexibility was given to BSNL-MTNL combined to rope in Railtel and/or Power Grid as per

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mentioned that alteration, if any, in the scope of work because of efforts to avoid duplication with NKN would not affect the college network and hence the rate variation for college network did not appear to be justified. He mentioned that the rates arrived at after long process of consultations should not escalate upward otherwise the whole due diligence process would be back to square one, and would have to be repeated.

Secretary [HE] mentioned that the university component of NME-ICT had to be viewed in a dynamic scenario as the exact progress of NKN could not be predicted. In any case, 60% of the work of NKN was with BSNL itself.

Joint Secretary [DoT] mentioned that the issue of scope of work between the two networks should be frozen and DoT / BSNL-MTNL combine should be told as to what was to be done, based on which they would take a fresh look at the rates.

He was informed that one of the considerations for selecting BSNL for NME-ICT was that it had been awarded a lion share of work of setting up NKN and, therefore, was in a better position to achieve the seamless connectivity between the two networks.

Secretary [HE] mentioned that a cut and dry scope of work might not be possible, but the contours of overall work are possible and could be provided. He even offered that if BSNL was really losing money due to the proposed connections to NKN pops we could be very realistic in considering how to compensate them.

Minutes of the fifth meeting of Project Approval Board held on 29.5.2009 were then confirmed. It was, however, decided that MHRD must address the issues raised by the Joint Secretary, DoT and resolve the matter/issues so that the work could be started early. On the suggestion of representative of IIT, Kharagpur that there should be some mechanism to address the problems of institutions located in far flung areas, PAB also decided to broadbase the Implementation-cum-Monitoring Committee by forming Sub-Committee(s) for various regions as well. PAB also noted the Action Taken as indicated in Annexure I.

Item No. 2

The Draft of the Guidelines prepared by the Committee constituted to prepare the guidelines for assessment of projects, devising parameters for monitoring the progress of the implementation of approved projects, evolving yardsticks and guidelines for evaluating the outcome and output of the sanctioned projects, being implemented, was circulated in the PAB meeting. A copy of the same is enclosed as Annex-II. Prof. Karmeshu from JNU made a brief presentation in this regard. He said that the basic philosophy of the Mission is diffusion of innovations and exclusivity and critical mass needs to be created. Therefore, there is a need to generate awareness about the

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Mission among the masses. Prof. Prem K. Kalra, Convener, Standing Committee mentioned that there is less awareness among the masses about the National Mission on Education through ICT and there has been a decline in the number of proposals submitted under the Mission. In order to spread the awareness of the Mission, Prof. Kalra suggested deployment of mobile vans in some areas from college to college and showcase the Governments efforts in the field of ICT. He said CEC centers (about 17-18) which are in the heart of the universities could also be roped in or IGNOU's study centers could also be used for the purpose.

Dr. D.K. Paliwal, DEA(DL) said that spread of awareness is necessary, but at the same, it needs to be looked into as to how many colleges/stakeholders are capable to appreciate the ICT. Therefore, capacity building to make use of ICT is a must and this aspect too needs attention. Dr. D.K. Paliwal then said that the Draft Guidelines prepared by the Committee for assessment of projects, etc. appears to be in the form of a concept paper and guidelines should be more comprehensive. He further apprised PAB of the fact that one of the powers and functions of the National Apex Committee of National Mission on Education through Information and Communication Technology, as indicated in the CCEA-approved Mission Document is "Framing of Guidelines" under paragraph 6.1.1.1 of the Mission Document.

Representative of Planning Commission suggested making use of social networking sites for the generating awareness of the Mission. She also suggested to identify domain areas where nothing has so far been done and efforts may be made to cover those areas. Chairperson, endorsing the views of representative of Planning Commission, directed Member Secretary, PAB [JS(DL)] to identify the gap areas and help of the institutions which have expertise in those areas could be sought. Chairperson, PAB also directed to put a synopsis (5-6 lines) of all the projects/proposals sanctioned so far on the website of SAKSHAT. For generating awareness about the Mission, Chairperson, PAB suggested that UGC or AICTE could be approached to write to the colleges suggesting that their website could provide a link to the Mission. He further said that forthcoming meeting of Secretaries of Higher Education/Technical Education is also expected to be helpful in this regard. PAB, then, considered the Draft Guidelines (placed at Annex-II) and approved the same with the modification that Rs.2000/- and Rs.1000/- be paid respectively as honorarium and sitting fee to the domain experts for their contribution in evaluating each Project and to the Members of the Standing Committee for their participation in each of the meetings.

Item No.3

While no fresh recommendations of the Standing Committee were circulated in the meeting, Prof. Prem K. Kalra, Convener, Standing Committee of NMEICT requested PAB to consider granting approval to the four proposals which were recommended by the Standing Committee which met in the morning of 20th April, 2009. Prof. Prem K. Kalra further mentioned

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GUIDELINES
FOR DEVELOPMENT, ASSESSMENT,
MONITORING THE PROGRESS,
EVALUATION OF OUTCOME OF PROJECTS,
SUBMITTED FOR ASSISTANCE
TO MHRD
UNDER NME-ICT

Ministry of Human Resource Development
DEPARTMENT OF HIGHER EDUCATION,
NEW DELHI – 110 001
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National Mission on Education through ICT (NME-ICT)

1. PREAMBLE

The National Mission on Education through Information and Communication Technology (NME-ICT) is envisaged as a Centrally Sponsored Scheme to leverage the potential of ICT, in teaching and learning process for the benefit of all the learners in Higher Education Institutions at any time any where mode. Its motto being "to provide connectivity up to the last mile", the NME-ICT aims to extend computer infrastructure and connectivity to over 20000 colleges existing at present and each of the departments of over existing 400 universities/deemed universities and institutions of national importance in the country. The numbers of institutions/Departments are is grow in future.

NME-ICT seeks to bridge the digital divide, i.e., the gap in the skills to use computing devices for the purpose of teaching and learning among urban and rural teachers/learners in higher education domain and empower those, who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy. This will enable them to make best use of ICT framework for teaching and learning.

NME-ICT is focused primarily on development of high quality e-content in all disciplines and subjects at various levels. The projects under NME-ICT can broadly be classified as:
(a)   e-Content Development (b) Infrastructure Development (c) Social Impact
The topics covered under each domain are not exhaustive but indicative.

a)   e-Content Development (including all four quadrants)
* ICT Methodology for Teaching and Evaluation
* Modules Preparation
* Workshops for Training

The basic framework for content development is to scout domain experts who will take the responsibility for development of course design, study material, preparation etc. It will cover all kinds of development assisting in access to Education and Mission objectives.

b)   Infrastructure Development
* Education Technology
* Connectivity
* Software Development
* Tools and Devices
* Technology Ideas

R&D activities relevant to Mission objectives will also be undertaken.

c)   Social Impact
* Inclusivity (for content developers and learners)
* Expansion
* Bridging Digital Divide

The objective of the mission is to attain participation level of learners and developers to the maximum cutting across regions, income groups, gender. This will facilitate equal participation at all levels giving opportunities to all sections to utilize their potential which usually lies dormant. Special projects under NME-ICT would set up center of excellence, office(s) for the mission,

technology demonstration centers, and organize workshops. To realize the objectives of the Mission, understating dynamics of innovation diffusion becomes imperative

2. INNOVATION DIFFUSION AND CRITICAL MASS

This mission is essentially in the nature of diffusion of interactive communication technology where the concept of critical mass becomes central to its success. Rogers defines "critical mass as the point in time at which enough individuals have adopted an interactive innovation that the perceived cost benefit of adopting the innovation changes from negative to positive for individuals in the system, so that a certain minimum number of individuals in the system adopt and the rate of adoption becomes self-sustaining". It must be understood that the underlying dynamics is nonlinear and mimics the pattern of self-organizing system.

The knowledge is to be viewed as comprising various courses and their course material which are inter-connected and interwoven. This inter-dependence results in increase in probability of adoption of the innovation as more individuals in the network adopt it. Accordingly, achieving the critical mass of content developers and users is essential for mission's success. It is possible that much before reaching the critical mass, the loss of interest phenomenon may set in which may lead to discontinuance of the diffusion of innovation. In light of this it is necessary to adopt strategies to reach the critical mass (as depicted in a Fig. 1).

Therefore, it is imperative to involve every possible potential contributor to the mission which will widen the base of the resource pool leaving no talent in the country untouched. This needs a change in perspective which has so far dominated the world view restricting such an initiative to a selected group of experts. This will require the project (mission) to be open ended and subject to general scrutiny to enable continual improvement based on feedback. This is in the nature of open source. Further, the importance of time is also critical to the success of the project. There is a time frame available for the diffusion of innovation to succeed. Thus there are narrow windows within which the project (mission) will take off or pale into insignificance settling down at a very low level of adoption (as given in b of Fig. 1).

In any case the project has been visualized as a National project to involve the largest number of contributors and users. This 'inclusivity' and expansion, besides being the basic objectives of the NME-ICT, are also at the core of expected social returns from the project. It needs to be appreciated that lop-sided growth in terms of content developers and users would thus be a self-defeating exercise. Therefore, there is a need to broaden the base from elitist model based participation to mass based participation. Needless to say excellence of output is to be ensured for the project (mission) to be worthwhile. However, excellence can mean many things. Typically it has been customary to define excellence in terms of patents, publications (impact factor etc). But this project (mission) has a much wider sweep and has to be seen and judged as a social and academic revolution. In this case, excellence would also mean teaching and developing course material regarding cultural issues, inculcating basic sensibilities etc. In light of this the criteria for evaluation of the proposals have to be modified to make it broad based.

It is pertinent to mention that the course material should have a wider range to benefit learners of varying abilities. In view of this, it would be desirable if more than one coordinator can also be permitted to develop contents on similar or related topic as there are several books for the same course with different emphasis suiting the needs of different types of learners.

One of the strategies to reach the Critical Mass is as follows:

All Universities be sanctioned (Rs.7 Lakhs each) to produce one semester paper on e-content (using 4 Quadrant Template) in an area of their expertise, if they at least one teacher from every constituent / affiliated College of their University. This would be under Teacher-empowerment programme. This would require training of Teachers in e-content generation (to be done in CEC

Media Centres, IGNOU Regional Centres and good Computer Centres of various Universities/Institutes) and a need to get connectivity for the purpose of exchange of thoughts. This would provide in-tangible benefits of inclusion, sense of ownership and competitiveness among teachers to do something worthwhile under this Mission. This could be a cost-effective, hands-on way of popularizing the Mission: as compared to news paper advertisement. This will address issues of earliest image and regional imbalances.

3. WHO CAN SUBMIT PROPOSALS FOR e-CONTENT DEVELOPMENT?

"e-content development" is an entirely new project initiated by MHRD. It is quite possible that the PIs/Co-PIs may not have prior experience in the field similar to that of the audio-visual programmes of CECs (Consortium for Educational Communication, UGC) under the country-wide classrooms project of UGC. But keeping in view the vast experience of teachers in Universities and Colleges in teaching and learning and those scientists and professionals and retired faculty would be well competent in making significant contributions to e-content development. In view of this, even those who have no prior experience in e-content development may prove to be an asset

Proposals for e-Content development may be submitted to NME-ICT Secretariat by any of the following:
(a)   Any educational institutions in the country imparting higher education, scientific organizations, private organizations, the retired teachers/ scientists and other professionals, who agree with the aims and objectives of the NME-ICT, shall be eligible to submit proposals
(b)   Teachers with ten years teaching in service/ or retired are eligible to submit projects as content writers.
(c)   A consortium of universities/colleges/Academicians.
(d)   NGO's engaged in activities similar to the objectives of NME-ICT.
(e)   An Agency/Institution/Individual through invitation the of NME-ICT

4.   PROCEDURE FOR EVALUATION OF PROPOSALS

The procedure for evaluation of the proposals would be more or less the same as adopted by funding agencies (like UGC, DST) except the benchmarks for judging the project would be suitably modified in view of above mentioned issues. Thus there are similarities with regard to procedures/practices as adopted by funding agencies like DST, CSIR, UGC, CEC and NME-ICT.

Proposals are submitted online on Sakshat website. Each standing committee member gets an opportunity to go through the Project and review the proposal on following criteria.
i.   Feasibility and the appropriateness of time frame
ii.   Uniqueness/ novelty/innovation.
iii.   Scope for inter-institutional collaboration and development.
iv.   Organization of program.
v.   Work details as outlined by PI.
vi.   Sufficiency of funds as requested by PI.
vii.   Social impact/ reach/ spread of the outcomes of the proposal
viii.   Contribution of project in minimizing the digital divide in the country
ix.   Any other matter which is likely to affect the execution of the project

In the first meeting (held on 15. 4. 2009) of project coordinators of all projects sanctioned under NME-ICT. it was decided to have an expert group for monitoring projects. These expert groups have already been indentified for sanctioned projects (Similar to DST- Progress evaluation and Monitoring and UGC – Progress for Monitoring the progress of the Scheme: See Annexure I)

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5. UNDERTAKING BY PROJECT INVESTIGATOR (P I)

While submitting fresh proposals the PIs on behalf of Implementing Institution has to submit an undertaking to the NME-ICT, that the proposal being submitted by them has not been submitted elsewhere, nor is it a repetition of any other project for which they have received funding from any other agency. However, if they want to submit the same or similar proposal to any other funding agency, they should inform MHRD.

6. PRINCIPAL INVESTIGATOR & CO-INVESTIGATOR(S) AND THE IMPLEMENTING INSTITUTION(S)

i.   The Principal Investigator (PI) has the primarily responsibility for the implementation of the project. The project team consists of the PI, Co-Investigator(s) (upto two) and the project personnel appointed as per the sanction order, if any. It is necessary to ensure that the project is carried out by the project team in a cohesive manner. Periodic meetings of the team are essential for this purpose.

ii.   In case of PIs who would be superannuating during the duration of the project, association of a "in service" Co-Investigator may be ensured by the Institute authorities. In such cases, the institute authorities should inform to the NME-ICT, well in advance, about their "no objection" for providing the infrastructural facilities to the PI for implementation of the project after his superannuation.

Having accepted the responsibility for the implementation of the project, the PI should be committed to implement the project over its duration and should have no plans to go on long leave.

iii.   In case, the PI is shifting to another institution on new appointment/ transfer/ long term deputation, the project could be transferred to that institution with the mutual consent of both the institutions and of the NME-ICT. Such requests for transfer of the project should be sent well in advance and should be accompanied with 'No Objection' certificates from both the institutions and the Endorsement Certificate from the new Institution.

iv.   In case the PI leaves the project due to unforeseen circumstances, the Co-Investigator could be considered as the PI subject to the approval of the PI, Head of the Institute and the NME-ICT. Such a request should be sent at least 4-6 months in advance along with a detailed bio-data of the Co-Investigator.

v.   The PI as well as the implementing institution has the responsibility of informing the NME-ICT about any change in the status of the PI/ Co-Investigator including relieving them on short term deputation for a continuous period of 3 months or more.

vi   The project stands terminated in the absence of the PI/ Co-Investigator for a continuous period of 3 months without intimation to the NME-ICT

vii   The implementing institution has an important role to play and in consultation with the NME-ICT take steps to ensure successful completion of the project, before relieving the PI.

viii The implementing Institute should provide full infrastructural facilities such as accommodation, water, electricity, and communication facilities etc for smooth implementation of the project.

7.   PROJECT STAFF(S)

i   All the personnel including Research personnel appointed under the project for full/ part time duration of the project, are to be treated as temporary employees and will be governed by the Administrative rules/ service conditions of the implementing Institute. No reference on these issues be made to this NME-ICT. The NME-ICT/MHRD will have no liability, whatsoever, for the project staff after completion of the project duration.

ii   Scale and emoluments for the posts not covered under this order are governed by norms prevalent in the implementing institution or as may be decided by this Department.

iii. The total emoluments spent (i) on engaging personal (ii) towards the work outsourced (iii) payment of honorarium to regular staff and (iv) on procurement of Hardware and / or Software required for development of e-content should not exceed the budget allocated for the project

8.   SANCTION OF PILOT PROJECT/ DETAILED PROJECT

A   Every PI/ co-PI is required to give a presentation before the standing committee (SC) which comprises about 30 members. In view of fairly wide range of available domain expertise among SC members as well as in the areas of teaching methodology, content development, lab development and other aspects of education, no useful purpose would be served by inviting three more external experts in the committee. However, if the standing committee feels that expertise in certain areas is not available, the committee may associate three external experts.

Based on presentation and critical examination of the proposal the standing committee either recommends sanction of the project or makes suggestions for further improvement (in tune with the basic objective of the Mission that 'No proposal would be rejected'). The maximum duration of completing a Pilot project would be one year or as approved by SC and PAB.

B   In its sixth meeting of the empowered committee of experts (held on 29. 5. 2009), the committee decided the adoption of two-step approach of considering a pilot process as soon as possible for any project under the mission and then request a comprehensive evaluation of the full proposal within a few months to sanction the full project by the time the pilot project can be reviewed and assessed as successful by many domain experts.

In order to address the above concerns, it would be required to reduce the time period which is usually taken between the final review, presentation and sanction of the detailed

project. Thus it would be necessary that the three external experts are also invited for the presentation by the PI

c   Accordingly, on completion of pilot project, the SC would invite three external experts to review the project. Based on the feedback of the experts, an extended SC (SC members along with three external experts) would invite PI for presentation for the detailed project.

9.   FUNDING AND DURATION OF PILOT PROJECTS

Rule for funding of the Pilot project (under the category of content development) is restricted to 10% of the total cost of detailed project.

The funding guidelines to be followed by SC are advisory in nature. However, in special cases the SC may use its discretion to deviate from these guidelines with justification.
These guidelines may be reviewed from time to time so that mission objectives can be achieved.
Note: These guidelines are within the framework of NME-ICT. In case of any conflict with NME-ICT guidelines, Mission guidelines will prevail.

10.   HONORARIUM AND OTHER GUIDELINES (FOR CONSIDERATION)

i.   It is proposed that Rs. 5000/- each as honorarium to domain experts for their contribution in evaluating the Project.

ii.   The member of the standing committee to be paid Rs. 2000/- as sitting fee for each meeting.

11.   CONTENT DEVELOPEMENT

E-Content Development consists of (i) Academic content writing and (ii) e-Content production. The Academic content may be written by the Subject Experts. However, the services of Establishments or Production Houses, having experience in production of e-Content and Video programmes, especially for education may be sought by the Implementing Institution. Proposals for e-Content development may be submitted keeping in mind that the product is developed and delivered to NME-ICT Secretariat in an integrated form, following Guidelines with regard to Template and Technical parameters:

However, if it is found that the quality of e-Content is not as per Technical and Production Guidelines, the Implementing Institution / individual assigned to produce the e-Content shall have to get it corrected.

12.   e-CONTENT MODULE & CONTENT DURATION

Content duration has been estimated on the basis of the number of hours that are required to transact the content in the classroom. For example, a course in the classroom requires one credit and a credit is equivalent to 15 hours classroom teaching. The content of a course will be taken as 15 hours. On an average, UG students have to take 6 to 8 papers in an academic year. Therefore, during the study period of 3 years a student may take 18 - 24 papers.

Each paper requires 20 - 25 lessons. Presuming that a lesson will take three hours of teaching, 60 to 75 hours will be required to complete one paper. Two and a half hours of classroom lecture is normally covered by an e-Content Module of 30 minutes duration. So, on an average 250- 300 Modules are required for completion of the full course

Similarly, duration of Video programmes produced by the Programme Developer concerning each module shall be about 30 minutes.

13. PROJECT MANAGEMENT AND MONITORING COMMITTEE:

An Academic Content Advisory Committee shall be constituted by the Implementing Agency in consultation with the NME-ICT, comprising of a panel of Subject Experts, Technical Experts, and Media professionals, Managers to monitor and review the progress of implementation of the e-Content Scheme assigned to the Instituted / Agency.

The committee shall be responsible for selecting and engaging (i) a Course Coordinator for each of the e-Course assigned and (ii) Production House/Agency for production of e-content Development. The Academic Content Advisory Committee shall meet once in three months, or more often if needed, to review the quality of Academic Content delivered by the Subject Experts and quality of Production delivered by the Production Agency/ Implementing Agency of each e-Content course and recommend the corrections, changes etc that are required in accordance with the Guidelines on this issued.

The Mission document will prevail all issues over this document in case of any conflicts and contradictions.

14. DELIVERY OF PRODUCT

The Programme Production Agency, shall take the Academic content from the Subject Coordinator/ Subject Expert, engaged by the Implementing Agency and shall produce e-Content Module as per Academic and Technical criteria and provide Graphics, Animation and Multimedia inputs, wherever needed. The Programme Production Agency shall also incorporate necessary modifications as communicated by the Subject Coordinator or the Academic Content Advisory Committee. The Programme production agency, shall submit the integrated e-Content developed and other products as per technical criteria on a Portable Hard Disk to NME-ICT (Hard Disk returnable to the agency).

15. TECHNICAL GUIDELINES

For the development of e-content, envisaged by the NME-ICT as Centrally Sponsored Scheme, is to leverage the potential of ICT, in teaching and learning process. The Technical and Production parameters to be observed by all Implementing Agencies shall therefore be uniform. Accordingly Technical Parameters and Guidelines may be sought from the NME-ICT Secretariat. All Implementing Agencies shall therefore ensure that the Technical Guidelines are strictly followed.

16. META-DATA AND CREATION OF INFORMATION BANK

The e-content Development Project of the NME-ICT envisages development of large number of e-modules, video programmes, LoRs, etc. related to a number of subjects of UG and PG. It is important that key words appearing in each module are recorded on a Production Detail Report (PDR format to be provided) by the Subject Expert/Production Agency. This information is then tagged with the video/audio production and stays with it forever. A Computerized Library Management Software (CLMS) created to handle such information proves to be boon in churning out data out of an infinite number of programmes stored. Such Meta-data (data about the programmes) can be surfed by anybody on the net by pressing a keyword and the person can seek any of the information related to the programme, its synopsis, etc.

17. QUALITY CONTROL:

The content authenticity shall be the responsibility of the Course Coordinator. However, the technical quality checking shall be the responsibility of the Production agency and should follow instructions on this laid down above. Further, issues concerning copyright aspects / intellectual property rights are to be taken care of by the e-Content production agency.

The final products in the form of e-Content modules shall finally be previewed and approved by the Academic Content Advisory Committee before making it available to the public.

18. IPR & COPYRIGHTS

The Intellectual Property Rights (IPR) and Production Copy Rights of the e-Content and other products developed shall rest with the NME-ICT, however the Subject Expert delivering the lecture(s), text, diagram's, Chart(s) etc shall submit an undertaking in writing to the NME-ICT that he/she has not violate the Copyright issues on this.

19. ADDITIONAL GUIDELINES FOR RELEASE OF GRANTS IN YEARLY INSTALMENT AND FINANCIAL MANAGEMENT

i. The grants for the project shall be released on the basis of yearly requirements taking note of the progress and expenditure incurred. The first sanction order indicates the budgetary allocation for the duration of the project under various heads like Equipment, Manpower, Travel, Consumable, Contingency etc. In specific cases, the item, apart from these heads, for which an allocation is made, will be indicated separately.

ii. The first installment of grant shall be released along with the first sanction order.

iii. Diversion of funds from non-recurring head i.e., Equipment to Recurring head like Manpower, Consumable etc. is normally not allowed. However, reallocation/ re-appropriation of grants under different heads require prior approval of PAB of NME-ICT.

vi. All the assets acquired from the grant will be the property of Government of India and should not be disposed off or encumbered or utilised for purpose other than those for which the grant had been sanctioned, without the prior sanction of the NME-ICT Secretariat.

vii. After completion/ termination of the project, the NME-ICT will be free to sell or otherwise dispose off the assets, which are the property of the Government. The institute shall render to the Government necessary facilities for arranging the sale of these assets. The NME-ICT also has the discretion to gift the assets to the Institute or transfer them to any other institute if it is considered appropriate and justified.

viii. The NME-ICT Secretariat reserves the right to terminate the project at any stage if it is convinced that the grant has not been properly utilised or appropriate progress is not being made.

20. ADDITIONAL SET OF CRITERIA FOR MONITORING THE PROGRESS OF THE SCHEME:

The proposals will be evaluated by the Academic Content Advisory Committee, keeping in mind the following criteria:

a. Technologically Friendly: so as to be downloaded and used on any computer either independently or in a LAN situation.

b. Learner Friendly: for easy navigation.

c. Learner Centric: to be useful in self-instructional mode.

d. Teacher Friendly: so as to be used in various teaching-learning methods such as classroom lectures, tutoring to a group, lab session, etc.;

e. Employing Learner Centric Pedagogy: specifically, the designer of the e-Content should pay attention to the teaching model used - such as simple information communication, exploratory approach, discovery approach, mastery learning etc. Many types of interactive methods should be included to make the learning process effective and efficient.

f. Self-evaluative: so as to have plenty of evaluation material to give feedback to the learner as to his/her achievements in a given topic of the course and including formative as well as summative evaluation.

g. Object Based Learning/Teaching: so as to state specifically the objects of learning/teaching and employ different strategies for skill, competency and functionality developments.

21. PROFORMA FOR SUBMITTING UTILIZATION CERTIFICATE AND PROGRESS REPORT:

Statement of Expenditure and Utilisation Certificate (Annexure-I) shall be submitted to NME-ICT as per usual norms and procedures. It should also be uploaded on the Project Website linked to Sakshat.

22. INCENTIVES FOR CREATION OF e-CONTENT PROGRAMME

The teachers/subject experts who out their rich experience in the development of e-Content will be given due recognition by considering their work on development of five e-content modules as equivalent to a publication of a paper in an International peer reviewed journal/public book, subject to the condition that a notification in this regard is issued by the MHRD/UGC.
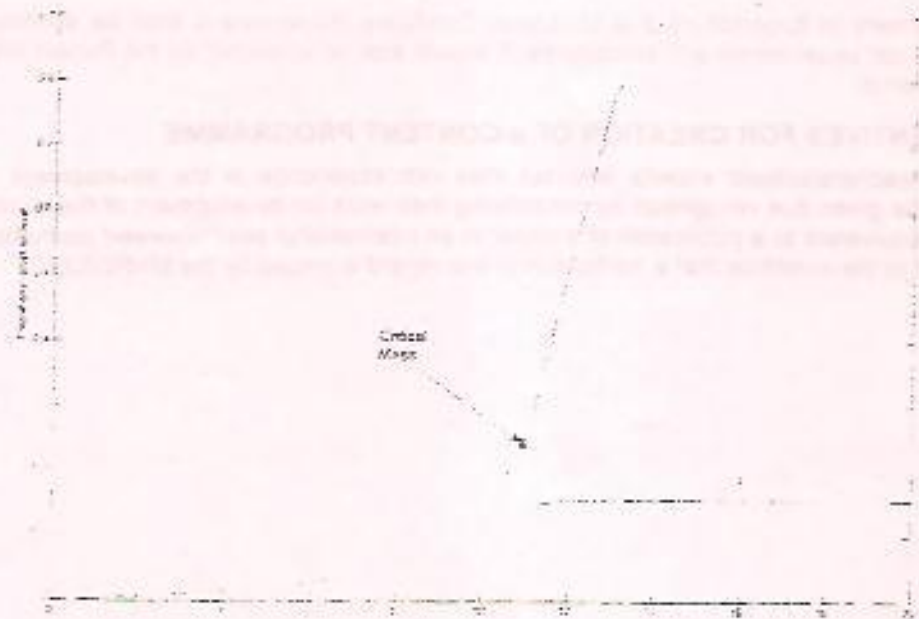
Figure-1

Figure 1: Alternative scenarios depicting evolution of innovation-diffusion. (a) Critical mass is attained (b) Critical mass is not attained and the adoption level settles down at a very low level.

UTILIZATION CERTIFICATE

(To be sent to the NME-ICT)

.... College/ ....University

Certified that the Project Grant of Rs. _____ (Rupees _____) approved by the NME-ICT for e-Content Development Project at the College/University/Institution/Agency has been utilized as per details given below.

Amount of grant received from the NME-ICT

Details of expenditure incurred

(a) Honorarium to the Content Developer/

Subject Expert etc.

(b) Secretarial Assistance

(c) Travel Grant

(d) Contingency/compilation and

Communication Expenses

(e) Equipment/Hardware/Devices

(f) Mis.

(g) Total expenditure

(h) Unspent balances refunded/refundable to the NME-ICT

(i) Balance grant payable by the NME-ICT

(j) Activity as assigned by PAB

Certified further that all the terms and conditions laid down in the NME-ICT letter no _____ dated _____ have been fulfilled by the College/ University/Agency and the grant has been utilized for the purpose for which it was sanctioned.

Certified further that the inventories of permanent and semi permanent assets created/acquired wholly or mainly out of the grants given by the NME-ICT as indicated above are being maintained in the prescribed form and are being kept up to date and these assets have not been disposed off, encumbered or utilized for any other purpose.

1. Signature of the PI   2. Signature of the

Auditor/Chartered Accountant

3. Signature of the nominated officer
   of the University/College/Institution/Agency
   authorized to operate the bank account jointly

National Mission on Education through Information and Communication Technology (NMEICT)

Brief : Government of India on 2.1.2009 approved a Centrally Sponsored plan Scheme on National Mission on Education through Information and Communication Technology (NMEICT). The objective is to make best use of ICT with the purpose of identification and nurturing of talent and life long learning as well as extend the education facility to a larger section of people. The scheme would provide for development of knowledge modules to address to the personalized needs of learners, having right content to take care of their aspirations. These modules would be delivered through ICT. This scheme has been envisaged to leverage the potential of ICT, in teaching and learning process for the benefit of all the learners in Higher Educational Institutions in nay time anywhere mode. This scheme has two major components i.e. content generation and providing connectivity to universities/ colleges/ institutions of higher learning throughout the country. **In order to realize the goals of the Mission, the following mechanism/structure is in place:**

This structure has been created to ease the administrative and management structure to maintain smooth flow of resources as well as to achieve efficiency and effectiveness. The following four layers are responsible for the administrative and financial approval for the strategy, planning and resources.

- Apex Committee
- Mission Secretariat
- Empowered Committee of Experts [to be known as Project Approval Board]
- Domain Experts Committee
- Program Advisory and Management Team

Apex Committee

Constitution : Chaired by the Minister of Human Resource Development (HRM) with Secretaries of Expenditure, DIT, DOT, HE, SE&L, Planning Commission, representatives of UGC, AICTE, NCTE, DEC, IGNOU, CBSE, NCERT and Directors of all IITs, IIITs, IIMs, IISc, Vice Chancellors of Central Universities, Directors of anchor institutions as members. This body shall play the pivotal role in policy making and provide overarching principles for the success of the mission. The role of the apex committee is to guide and mentor the activities of the mission. This body can suggest high impact ideas, formation of groups/networks/communities, projects and outcome usages. The apex committee shall create and identify major empowered committee of experts, domain experts committee and program advisory committee. There shall be the project advisory and management teams proposed by domain experts committee and programme advisory and management team for fulfilling the objectives of the mission.

Powers & functions of Apex Committee:

> Over-all policy making and direction for the Mission.
>
> Framing of guidelines.
>
> Nomination of members & experts on the Project Approval Board
>
> Strategy formulation & mid course corrections.
>
> Periodic review of outcomes and general monitoring of the Mission as a whole.
>
> Coordination between various Central Ministries and between Centre, States and NGOs etc.
>
> Addition / alteration of powers and functions of any committee or authority under this Mission.
>
> Decisions regarding delegation of powers (financial or otherwise) to various committees / authorities / functionaries involved in the Mission or its projects

Empowered Experts Committee [Project Approval Board]

Constitution : The Project Approval Board is chaired by the Secretary [Higher Education], MHRD and apart from renowned experts from Academia and Industry, shall have representatives from Department of Expenditure, Planning Commission, Department of Telecommunication, Department of Information Technology, Department of Space and Department of Science & Technology. This committee shall be responsible for ensuring implementation of the mission objectives by various committees and teams in the best possible manner. This committee shall comprise of eminent experts in the area of e-education. The powers and function of the committee are listed as follows but are not limited to these. The committee in consultation with apex committee can take decisions for the mission, in keeping with spirit of the objectives to be achieved.

Powers and Functions of Empowered Experts Committee [Project Approval Board]

- Critical appraisal and Sanctioning of various project proposals under the Mission based on the DPRs (Detailed Project Reports).
- Making recommendations to the apex committee on matters of importance Final negotiations / deliberations on IPR related issues.
- Selection of domain experts committee and program advisory committee of the Mission.
- Promotion of any activity interest of the spirit of mission
- Management & funding
- Network of experts/**institutes/industry-institute/any network useful for the Mission** in various fields
- Deliberating on powers & functions of various committees

Domain Experts Committee

The committee shall be acting as a backbone, providing technical support. This committee shall be responsible for review of projects on a continuous basis. The mechanisms for streamlining projects and the integration of outcomes of projects shall fall in the jurisdiction of the committee. Broadly, the powers and function of the committee are suggested below.

Power and Functions Domain Experts Committee for Mission

- Review of progress and decision to release installments of grants for specific projects.
- Approval of milestones for deliverables of the project.
- Project monitoring at regular intervals
- Peer-review meetings for monitoring of progress and dovetailing with other projects in the same broad area of activity.
- Evaluation & testing of milestones and intermediate outcomes of projects in their domain.
- Assessing the utilization certificates submitted by Project Implementing Institutions.
- Primary negotiations on IPR related matters.

Standing Committee [Domain Experts Committee for content related activity]

In pursuance of the decisions taken by the PAB of NMEICT in its meeting held on 17.3.2009, a Standing Committee has been constituted to examine and scrutinized content related proposals with domain experts being co-opted, if required, and give its recommendations to the PAB for their consideration and approval. Later on vide this Department's Order of 9th June, 2009 two more experts were added to the Standing Committee.

Procedure for evaluation of proposals as given in the *Guidelines for Development, Assessment, Monitoring the Progress, Evaluation of the Outcome of the Projects* submitted by the Committee constituted pursuant to the decision taken by the PAB in its meeting held on 21.5.2009 to MHRD under NMEICT is reproduced below:-

- The procedure for evaluation of the proposals would be more or less the same as adopted by funding agencies (lie UGC, DST) except he benchmarks for judging the project would be suitably modified in view of above mentioned issues. Thus there are similarities with regard to procedures/practices as adopted by funding agencies like DST, CSIR, UGC, CEC and NMEICT.

> Proposals are submitted online on Sakshat website. Each Standing Committee member gets an opportunity to go through the Project and review the proposal on following criteria:

    i.   Feasibility and the appropriateness of time frame.

    ii.   Uniqueness/novelty/innovation.

    iii.   Scope for inter-institutional collaboration and development

    iv.   Organization of programme

    v.   Work details as outlined by PI

    vi.   Sufficiency of funds as requested by PI

    vii   Social impact/reach/spread of the outcomes of the proposal

    viii   Contribution of project in minimizing the digital divide in the country

    ix   Any other matter which is likely to affect the execution of the project.

Implementation cum Monitoring Committee for [Domain Experts Committee for connectivity related activities]

Terms of Reference of the said Committee is :

> To ensure proper implementation and roll-out of the National Mission on Education through Information and Communication Technology (NMEICT) network by BSNL-MTNL combine (under the aegis of DOT).

> To examine and make recommendations so as to ensure that connectivity is provided to the educational institutions so as to serve the best interest of the Mission.

> To monitor the progress in the expanding the connectivity and submit the periodical progress report to the PAB.

> To make recommendations to the Department of Telecommunications (DOT) to release money to the connectivity provider from time to time.

In pursuance to the decisions taken by the PAB , orders for the **State Level Implementation cum Monitoring Committee** as a sub committee of the above committee was issued.

Committee on " Direct to Home (DTH) Services "[Domain Experts Committee for DTH services] :

Under the Mission, contents for various undergraduate, postgraduate and vocational courses are being developed. Connectivity is being provided for delivery of the contents and for meeting other objectives of the Mission through this connectivity provided the Universities and

Colleges. For full utilization of the contents being developed, use of Direct to Home (DTH) mode has also been visualized in the Mission Document of National Mission on Education through Information and Communication Technology. It has also been visualized that DTH mode will help in beaming of e-content in various regional languages. This will also ensure delivery round the clock to the students at their homes. Accordingly, the Committee may prepare a report, indicating as to how DTH technique can be used in this regard. In this process, the Committee may suggest number of channels, transponders, etc. required and also the source from which these can be procured with procedure to be followed.

Committee on " Communication and Bulk Storage Servers at 100 Premier Institutions "

[Domain Experts Committee for Servers]

Terms of Reference of the said Committee is:

- ➤ To identify 100 institutions where communication and bulk storage servers could be installed ;
- ➤ To suggest specifications of the servers;
- ➤ To suggest manpower needed for maintenance of such servers, along with space where such servers would need be installed;
- ➤ To suggest methodology for procurement by the Institutions; and
- ➤ To suggest group of institutions with Principal Insvestigator who will anchor the project.

Project Monitoring and Supervision Group (PMSG)

The PMSG is a monitoring and supervision mechanism provided under the Mission. The following could be terms of reference of PMSG:

➢ To regularly monitor and supervise the said project to ensure timely progress of the project and the quality assurance of the outcome of the project;

➢ To submit its recommendation to the Standing Committee/ PAB so that appropriate decision could be taken to make sure that the overall progress of the Mission in terms of its objectives and deliverables is achieved;

➢ To synergise the peer group of experts in the project area for their active participation in the project activities;

➢ To monitor the project along with user group so that proper feedback for Principal Investigators (PIs) could be generated;

➢ To ensure that the feedback provided by the users reaches in a format which could be implemented by Principal Investigators; and

➢ To oversee compliance of terms and conditions mentioned in sanction letter.

Program Advisory and Management Team

Major programs of mission shall be administered and managed under the supervision the committee. Interaction among different teams, groups and experts shall be assisted by the committee. The identification of all possible programs shall be done by the team so that outcomes of the mission become achievable. The overall integration across different major programs shall be supervised and evaluated by the team.

Power and Functions of the Program Advisory and Management Team

- Selection of project advisory and management committee
- Evaluation of Project progress
- Coordination to ensure smooth flow of resources
- Enabling execution and integration of deliverables
- Resolving IPR, copy rights and any other legal issues
- Flexible structuring of groups and sub groups
- Identifying feedback system and ensure that feedback reaches at appropriate group/subgroup
- Restructuring and reorganization for timely completion of objectives

The above mentioned committees and teams would interact with organization/institutes/research labs.