## National Mission on Education through Information Communication Technology (NME-ICT), Ministry of Humane Recourse & Development

## 30<sup>th</sup> Project Approval Board (PAB), NMEICT

Date & Time : 28<sup>th</sup> October, 2015 at 02:00 pm

Venue : Conference Room No.112-C Wing, Shastri Bhawan, New Delhi.

#### AGENDA ITEMS

| Item No. | Agenda   | Page No. |
|----------|--|----------|
| 1        | Confirmation of the Minutes of the last Meeting of PAB             | 2        |
|          | held on 20 <sup>th</sup> May 2015                                  |          |
|          | and  |          |
|          | Action Taken Report on the minutes of last meeting.                |          |
| 2 (a)    | Seeking approval on the Minutes of Domain Expert                   | 3-11     |
|          | Committee (DEC) on Connectivity, Networking,                       |          |
|          | Communication & Bulk Storage (CNC&S) meeting held on               |          |
|          | 26 <sup>th</sup> September 2015.                                   |          |
| 2 (b)    | A presentation by Dr. Neena Pahuja, DG ERNET,                      | 12       |
|          | regarding proposals on 'Campus Connect & Wi-Fi' received           |          |
|          | from CUs & vetted by the ERNET.                                    |          |
| 2 (c)    | Consideration of the proposal, for 'Establishment of               | 13-16    |
|          | Hotspot/ Wi-Fi Campus Connect at Central Universities', as         |          |
|          | recommended by the DEC, CNC&S and also for remaining               |          |
|          | Central Universities.  |          |
| 2 (d)    | Modalities for execution of the Wi-Fi Project.                     | 17       |
| 3 (a)    | Appointment of Consultants for Development of SWAYAM               | 18       |
|          | Platform and   |          |
| 3 (b)    | Proposal to engage System Integrator for development of            | 19-21    |
|          | SWAYAM platform.   |          |
| 4        | Any other item with the permission of the Chair.                   | -        |
| Appendix | Minutes of 29 <sup>th</sup> PAB held on 20 <sup>th</sup> May, 2015 | 22-40    |

### National Mission on Education through Information and Communication Technology (NME-ICT), Ministry of Human Resource Development (MHRD)

### Agenda Item No.1

Confirmation of the Minutes of the last meeting held on 20<sup>th</sup> May, 2015 & Action Taken Note on the minutes of last meeting.

The "Minutes of the 29<sup>th</sup> Meeting of the Project Approval Board" held on 20<sup>th</sup> May, 2015 is placed for perusal and confirmation please (Appendix: Page No. 22 to 40).

The "**Action Taken Report**" on the Minutes of the 29<sup>th</sup> Meeting of the Project Approval Board" held on 20<sup>th</sup> May, 2015, shall be placed during next PAB meeting.

#### Agenda Item No. 2(a)

Seeking Approval of Minutes of the Meeting Domain Expert Committee (DEC) on Connectivity, Networking, Communication & Bulk Storage Servers (CNC&S) held on 26<sup>th</sup> September 2015.

The "Minutes of the Meeting Domain Expert Committee (DEC) on Connectivity, Networking, Communication & Bulk Storage Servers (CNC&S) held on 26<sup>th</sup> September 2015 is placed below:

## Domain Expert Committee on Connectivity, Networking, Communication & Bulk Storage Servers (CNC&S)

#### Minutes of the Meeting

The second meeting of the Domain Experts Committee (DEC) on Connectivity, Networking, Communication & Bulk Storage Servers (CNC&S), was held at 11:00 a.m. on 26<sup>th</sup> September 2015, at Shastri Bhavan, New Delhi to discuss establishment of 'Wi-Fi Hotspot, Campus Network at Central Universities (CUs)'. List of Members, who attended the meeting, is at Annexure-A.

Education & Research Network (ERNET) made a presentation on the subject explaining the architecture and features of the proposed project. They have also presented the estimate of the project for each university based on the field survey performed by the experts deployed by the ERNET. Following are the features of the project, which proposes establishment of Wi-Fi connectivity and Hot spots using a system that is Resilient, Secure, Highly available, Scalable, Flexible. The features of the proposed system are:

- a) Design Philosophy and features of the Hotspot/Wi-Fi enabled Campus Networking at CUs, which is based on Modular Network design with Tiered hierarchical architecture.
- b) The Hotspots cover areas that are frequently used by students & Academicians, such as Academic Block, Library, Hostels, Canteen etc. for accessing the Campus Network.
- c) **Network Architecture**: The proposed Campus Network shall be based on a 2/3-Tier architecture. The network has been divided into: (a) Core, (b) Zonal / Distribution and (c) Access Layer. The Network Core and Distribution layer Connectivity is 10G and the Access Layer Connectivity is 1G. The Network has been designed with adequate redundancy at all levels. The Wireless Infrastructure, providing the Hotspots / access, is based on a centralized controller based architecture providing centralized management. The Wireless Access Points can be provisioned for the end user access.

- d) Care has been taken to utilize the existing network infrastructure wherever possible, to extend the proposed Wi-Fi solution, subject to their technical feasibility. However necessary solution has been proposed for the Upgrade / replacement of the existing network in campus, wherever the existing equipment that is available is aged, older technology, technically incompatible, or is not supportable otherwise due to obsolescence.
- e) Indoor and Outdoor Wireless Access Points (WAPs) have been proposed depending upon the requirements of respective university campus.
- f) Centralized Network Management System (NMS) solution has been proposed for every university campus. Besides, adequate security solution has been incorporated in the proposed design for each university campus. Structured cabling guidelines are to be followed for the passive cabling.
- g) Security: Wi-Fi shall follow Access Point (AP) authentication through a Centralized Wireless Controller enabling Detection of Rogue/Ghost Wi-Fi Apps. The user/client authentication can also be used to create SSIDs for different user Groups, definition of Rule/Role based access groups (Faculty, Students, Guest, Vendors), Password based access (regular users and Guest Login).At Network level the campus shall have 'Firewall &Intrusion Protection System (IPS)'.
- h) Network-ready personal computers, regulated power, conducive operating environment, air-conditioning, access to site, site readiness and all other related but necessary devices/applications/services, power outlets with 'Earthing' etc., which are not in the scope of work, will be made available by the University.
- i) Internet connectivity & bandwidth will be made available to the University via National Knowledge Network (NKN), as envisaged in the erstwhile NMEICT report. LAN outlets would be laid only for Wi-Fi access points (WAP) to connect with the campus network. For other campus-wide LAN access convenience, the Universities are expected to make their own arrangement, as it is not part of the scope of this work.

#### **Deliberations & recommendations by the Members**

Deliberations took place on Technology adopted, budgeting, management on programme implementation, timeline, monitoring mechanism on implementation, process of scaling the 'Campus Connect & Wi-Fi' to universities & Colleges. The following observations have been made:

- a) Wi-Fi connectivity shall not be limited to access to internet only. It is actually creating a knowledge ecosystem, which enables collaborative functioning of various entities in the campus and across campuses through NKN. It shall enable functioning of intranet within the campus and participation in subjectspecific grids established by NKN.
- b) There shall be a network administrator empowered to manage and administer access to Internet sites through their IP/URLs, and also monitor the usage by stakeholders after Identification (ID) and authentication. The university shall have a team that can run the system on a 24X7 basis. ERNET shall have a provision for training such team.
- c) There shall be servers in each university which shall use the network for providing Campus services covering (a) Generic services such as e-mail, DHCP, LDAP and (b) Specific services, Compute services and Mapped IP services. Besides, limited number of servers to be made available for campus wide ERP services or equivalent as well as compute services for teaching and R&D. The suitable servers shall be included in the design and in Bill of Material by the ERNET.
- d) NKN, as a part of their program, shall provide a Secured Network Access System (SNAS) and an Integrated Threat Management Access (ITMA) system. The committee felt an equal and urgent need to finalize on Central Cloud system that is located in NKN and connected to Fiber Network established under NKN and connected to CUs, so as to enable smooth content flow up to Wi-Fi, through the Campus Network at Universities.
- e) All universities should be directed by the MHRD to acquire a valid Customs Duty Exemption Certificates (CDE) from Department of Scientific & Industrial research (DSIR) (Ministry of DST) and use the CDE for import equipment wherever applicable in the RFP.
- f) The procurement should be done by the university themselves. They are free to use the vendor(s) empanelled by the ERNET or through their internal procurement procedure, following the relevant provisions under GFR.

After due deliberations, the committee recommended that the project for setting up Hotspot/Wi-Fi Campus Connect in 32 CU campuses, including the requirements of Delhi University, Jharkhand and Haryana, as per Annexure-Bmay be taken up on priority. The recommended budgetary estimates, including the Servers, stands at Rs. 352.00 Crores for setting up Wi-Fi Campus Connect at all the 35 CU's.

## ATTENDANCE OF THE MEETING OF DOMAIN EXPERT COMMITTEE ON CONNECTIVITY, NETWORKING, COMMUNICATION & BULK STORAGE SERVERS

Date & Time : 26th September, 2015 at 11:00 hrs

: Conference Room No. 112, C-Wing, Ministry of Human Resource Development, Shastri Bhavan, New Delhi. Venue

| SI.<br>No. | Name, Designation<br>& Address   | Phone No. Fax & Email   | Signature |
|------------|--|---|-----------|
| 1.         | Prof. S.V. Raghavan<br>(Chairman)<br>Scientific Secretary PSA - GOI                      | Ph : Mob. No: Email : Fax :                                     |           |
| 2.         | Sh. R. Subrahmanyam<br>Additional Secretary (TEL)<br>MHRD, Shashtri Bhawan,<br>New Delhi | Ph : Mob. No: Email : Fax :                                     |           |
| 3.         | Sh. Praveen Kumar<br>Joint Secretary (Admin.)<br>MHRD, Shashtri Bhawan,<br>New Delhi     | Ph : Mob. No: Email : Fax :                                     |           |
| 4.         | Dr. None Poling<br>DG. ERNET   | Ph : Mob. No: 9810100176 Email : Fax :                          | 2_        |
| 5.         | Prof. Uma Kanjelac<br>191804, New Delli  | Ph: Mob. No: 9810488895  Email: Ukanjilel Dignoma Fax:          | U         |
| 6.         | Desty Singh  | Ph: Mob. No: 98/6732329 Email: dipak. Airgan Fax: derty. gov in | A_        |

## ATTENDANCE OF THE MEETING OF DOMAIN EXPERT COMMITTEE ON CONNECTIVITY, NETWORKING, COMMUNICATION & BULK STORAGE SERVERS

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Conference Room No. 112, C-Wing, Ministry of Human Resource Development, Shastri Bhavan, New Delhi. Venue

| SI.<br>No. | Name, Designation<br>& Address             | Phone No. Fax & Email                                     | Signature |
|------------|--|---|-----------|
| 7.         | K.D. Verma,<br>Under Secsely (TEL)<br>MHRD | Ph : Mob. No: Email : Fax :                               | 26/9/15   |
| 8.         | J.M. SURI<br>DDG(IT), TEC, DOT             | Ph : Mob. No: 9368137172 Email : Fax :                    | Lishur    |
| 9.         | RAJIV SINHA<br>DDG (NT) DOT HQ.            | Ph : Mob. No: 98 68 (3)4\5 Email : Fax :                  | Albe.     |
| 10.        | Prodeep Faw<br>HN 060 Sec 17 Pbd           | Ph : Mob. No: 9868274690 Email : Kanlf428@ grout.co Fax : | Lean      |
| 11.        | Meharbon Sings<br>Sr Dir<br>ERNET          | Ph: Mob. No: 9810833870 Email: Smehara Fax: eis-ernut. ii | -sves     |
| 12.        |  | Ph : Mob. No: Email : Fax :                               |           |
| 13.        |  | Ph : Mob. No: Email : Fax :                               |           |

### **Annexure-B**

## Data on CU's Surveyed and Compiled by ERNET

| S.<br>No. | Name & Address of<br>University   | Area (in<br>acres) | No. of<br>Buildings<br>covered | Cost of<br>Active<br>Equipment<br>in Lacs<br>(A) | Cost of<br>Passive<br>Equipme<br>nt In<br>Lacs<br>(B) | Custom<br>Duty in<br>Lacs<br>(C=D+E) | 5% duty on<br>Educational<br>Institutes<br>(In Lacs) | Addition<br>al 23%<br>duty in<br>absence<br>of CDE*<br>(In Lacs)<br>(E) | Total<br>Budgetary<br>Cost (Rs. in<br>Lac)<br>(Z=A+B+C) | Remark   |
|-----------|---|--------------------|--------------------------------|--|---|--------------------------------------|--|---|---|--|
| 1         | **Jawaharlal Nehru<br>University, New<br>Delhi -110067<br>www.jnu.ac.in   | 412.53             | 77                             | 1994.34  | 310.85  | 94.45                                | 94.45  |   | 2399.64   | Existing N/w up<br>gradation, 32<br>building require<br>OFC connectivity                                 |
| 2         | Jamia Millia Islamia,<br>New Delhi  | 216                | 43                             | 687.79   | 155.2   | 31.11                                | 31.11  |   | 874.1   |  |
| 3         | IGNOU, New Delhi,<br>Maidan Garhi,<br>New Delhi -110<br>068.<br>FAX - 91 -011-2686<br>2598,<br>www.ignou.ac.in            | 151                | 46                             | 397.04   | 120.51  | 18.51                                | 18.51  |   | 536.06  |  |
| 4         | BHU, Varanasi -<br>221 005, FAX-91-<br>0542-368174<br>vc_bhu@banaras.e<br>rnet.in   | 1300               | 242                            | 4,271.63   | 795.64  | 201.24                               | 201.24   |   | 5268.51   | Existing N/w 15 years old and end of life and end of support   |
| 5         | AMU, Aligarh -202<br>002, FAX - 0571-<br>2700528<br>www.amu.nic.in  | 1155.46            | 110                            | 878.23   | 58.78   | 40.21                                | 40.21  |   | 977.22  |  |
| 6         | Visva Bharti<br>Shantiniketan, West<br>Bengal –731 235,<br>FAX–91-03463-<br>262672<br>www.vbharat.ac.in                   | 1130               | 111                            | 1,195.78   | 207.53  | 56.18                                | 56.18  |   | 1459.49   | All existing<br>active networks<br>obsolete and<br>end of life. SM<br>Fiber available in<br>66 locations |
| 7         | Hyderabad<br>University,<br>Hyderabad-500<br>046, FAX-91-040-<br>3010145, 3010120,<br>www.uohyd.ernet.in                  | 1785               | 71                             | 1012.96  | 99.8  | 46.93                                | 46.93  |   | 1159.69   | Augmentation of<br>existing N/w,<br>Switches<br>Obsolete, SM<br>Fiber available in<br>max. places        |
| 8         | Pondicherry<br>Univ,Pondicherry–<br>605 014, Exchange<br>– 2654200/300<br>FAX –091-0413-<br>2655 265,<br>www.pondiuni.org | 800                | 61                             | 790.23   | 62.83   | 37.17                                | 37.17  |   | 890.23  |  |
| 9         | Assam University,<br>Silchar, ASSAM –<br>788 011, FAX -03<br>842-32779, 70802,<br>www.aus.ac.in                           | 600                | 68                             | 413.88   | 44.30   | 18.94                                | 18.94  |   | 477.12  |  |

| S.<br>No. | Name & Address of<br>University   | Area (in acres) | No. of<br>Buildings<br>covered | Cost of<br>Active<br>Equipment<br>in Lacs<br>(A) | Passive<br>Equipme | Custom<br>Duty in<br>Lacs<br>(C=D+E) | Mandatory<br>5% duty on<br>Educational<br>Institutes<br>(In Lacs)<br>(D) | Addition<br>al 23%<br>duty in<br>absence<br>of CDE*<br>(In Lacs)<br>(E) | Total<br>Budgetary<br>Cost (Rs. in<br>Lac)<br>(Z=A+B+C) | Remark                                  |
|-----------|---|-----------------|--------------------------------|--|--------------------|--------------------------------------|--|---|---|---|
| 10        | Tezpur Univ.<br>TEZPUR –784 028<br>ASSAM, FAX -<br>03712-21539,<br>267006<br>www.tezu.ernet.in              | 261             | 42                             | 756.76   | 147.15             | 35.67                                | 35.67  |   | 939.58  |   |
| 11        | **Nagaland<br>University , Kohima<br>Nagaland FAX-03<br>70-2290246,<br>www.Nagauniv.org                     | 802             | 38                             | 511.87   | 116.01             | 128.14                               | 22.88  | 105.26  | 756.02  |   |
| 12        | Mizoram University<br>P. B. No. 190,<br>Aizawal -796012,<br>Mizoram   | 972             | 55                             | 427.16   | 54.37              | 20.23                                | 20.23  |   | 501.76  |   |
| 13        | Maulana Azad<br>National Urdu<br>University,<br>Gachibowli,<br>Hyderabad- 500032                            | 200             | 21                             | 346.66   | 47.55              | 89.36                                | 15.96  | 73.40   | 483.57  |   |
| 14        | Mahatama Gandhi<br>Antarrashtriya<br>Viswavidyalaya, P.<br>B No.16<br>Panchteela,<br>Wardha- 442 001,<br>MP | 200             | 18                             | 360.20   | 36.47              | 94.98                                | 16.96  | 78.02   | 491.65  |   |
| 15        | **Rajiv Gandhi<br>University, Itanagar-<br>791112   | 306             | 31                             | 331.53   | 53.01              | 15.42                                | 15.42  |   | 399.96  |   |
| 110       | Sikkim University,<br>Gangtok, Sikkim   | 753             | 27                             | 282.22   | 19.56              | 73.99                                | 13.21  | 60.78   | 375.77  |   |
| 17        | Tripura University,<br>Tripura<br>Suryamaninagar-<br>799130   | 79              | 28                             | 374.27   | 109.12             | 17.29                                | 17.29  |   | 500.68  |   |
| 18        | English and Foreign<br>Languages<br>University, O.U<br>Campus,<br>Hyderabad 500 007                         | 33              | 12                             | 285.13   | 25.69              | 72.34                                | 12.92  | 59.42   | 383.16  |   |
| 19        | Indira Gandhi<br>National Tribal<br>University,<br>Amarkantak   | 370             | 32                             | 717  | 234                | 223.5                                | 55.93  | 167.57  | 1174.5  | No Network                              |
| 20        | Hemawati Nandan<br>Bahuguna Garhwal<br>University,<br>Srinagar-246174,<br>Uttarakhand                       | 268             | 83                             | 1466.95  | 245.45             | 383.65                               | 68.51  | 315.14  | 2096.05   | 4 distributed campuses without Intranet |

| S.<br>No. | Name & Address of<br>University   | Area (in acres) | No. of<br>Buildings<br>covered | Cost of<br>Active<br>Equipment<br>in Lacs<br>(A) |        | Duty in | Mandatory<br>5% duty on<br>Educational<br>Institutes<br>(In Lacs)<br>(D) | Addition<br>al 23%<br>duty in<br>absence<br>of CDE*<br>(In Lacs)<br>(E) | Total<br>Budgetary<br>Cost (Rs. in<br>Lac)<br>(Z=A+B+C) | Remark   |
|-----------|---|-----------------|--------------------------------|--|--------|---------|--|---|---|--|
|           | Central University<br>of Tamil Nadu, C/o<br>Collectorate<br>Annexe,<br>Tiruvarur 610 001                  | 500             | 18                             | 464.30   | 69.47  | 120.83  | 21.58  | 99.25   | 654.6   |  |
| 22        | Central University<br>of Rajasthan,NH-8,<br>Bandar Sindri,Dist-<br>Ajmer-305801                           | 518             | 21                             | 350.69   | 76.77  | 16.21   | 16.21  |   | 443.67  |  |
| 23        | Central University of Orissa, Qtr. No. Type-C, Block-4, New Govt. Colony, Gajpatinagar, Bhubneswar 751017 | 430             | 7                              | 306.62   | 37.35  | 81.06   | 14.48  | 66.59   | 425.03  |  |
| 24        | Central University<br>of Karnataka,<br>Jnana Ganga,<br>Gulbarga University<br>Campus,<br>Gulbarga-585 106 | 654             | 28                             | 828.23   | 181.91 | 216.71  | 38.70  | 178.01  | 1226.85   | Upgradation of<br>Core S/w &<br>Distribution S/w,<br>SM Fiber<br>required, existing<br>network out of<br>support |
| 25        | **Central University<br>of Kerala, Jimanis,<br>SP-16/375,<br>Sreekaryam, P.O.<br>Trivandrum-<br>695017,   | 310             | 8                              | 149.61   | 13.69  | 6.66    | 6.66   |   | 169.96  |  |
|           | Dr. Harisingh Gour<br>Vishwavidyalaya,<br>Sagar (M.P.)  | 1312            | 52                             | 586.39   | 199.05 | 27.18   | 27.18  |   | 812.62  |  |
|           | Guru Ghasidas<br>Vishwavidyalaya,<br>Bilaspur   | 664             | 33                             | 448.31   | 85.11  | 117.19  | 20.93  | 96.26   | 650.61  |  |
| 28        | Central University<br>of Punjab, D-13,<br>Civil Station,<br>Bhatinda-151001.                              | 140             | 18                             | 462.18   | 49.38  | 21.54   | 21.54  |   | 533.1   |  |
| 29        | Central University<br>of South<br>Bihar, Camp Office:<br>BIT Campus,<br>Patna                             | 450             | 8                              | 246.77   | 17.83  | 11.33   | 11.33  |   | 275.93  |  |
| 30        | Central University<br>of Gujarat 95/1,<br>Sector-<br>2A,Gandhinagar-<br>382007                            | 260             | 16                             | 156.17   | 18.12  | 7.09    | 7.09   |   | 181.38  |  |
|           | Central University<br>of Jammu 8/8,<br>Trikuta Nagar,<br>Jammu Tawi                                       | 610             | 11                             | 330.94   | 33.73  | 81.43   | 14.54  | 66.89   | 446.1   |  |

| S.<br>No. | Name & Address of<br>University  | Area (in<br>acres) | No. of<br>Buildings<br>covered | Cost of<br>Active<br>Equipment<br>in Lacs<br>(A) | Cost of<br>Passive<br>Equipme<br>nt In<br>Lacs<br>(B) | Duty in | 5% duty on<br>Educational<br>Institutes<br>(In Lacs) | al 23%  | Total<br>Budgetary<br>Cost (Rs. in<br>Lac)<br>(Z=A+B+C) | Remark |
|-----------|--|--------------------|--------------------------------|--|---|---------|--|---------|---|--------|
| 32        | Central University<br>of Kashmir, Bagi-<br>Hyder, Hyderpora<br>Srinagar-190004 | 2.3                | 11                             | 107.29   | 81.43   | 19.81   | 3.54   | 16.27   | 208.53  |        |
|           | Total  |                    |                                | 21939.13   | 3807.66   | 2426.35 | 1043.48  | 1382.87 | 28173.14  |        |
|           |  |                    |                                |  |   |         | 2426.  | .35     |   |        |

#### A)

| S.No | Description       | In Crores |
|------|-------------------|-----------|
|      |                   |           |
| 1    | Total Active      | 219.39    |
| 2    | Total Passive     | 38.08     |
| 3    | Total Custom Duty | 24.26     |
|      |                   | 281.73    |

#### \*CDE = Custom Duty Exemption Certificate

- B) Including the requirements of Delhi University, Jharkhand and Haryana amounting to Rs.35.00 Crores.
- C) Budgetary on Servers Rs.1.00 Crore at each of the CU, total Rs.35.00 Crores. Total A), B) & C) is Rs.352.00 Crores.

The figures are Budgetary Estimates. The actual are subject to change based on the solution arrived at after following the due procurement procedures.

<sup>\*\* =</sup> Proposal based on information/details provided by the University. No site survey has been done.

## A presentation by

Dr. Neena Pahuja, DG ERNET,

'Campus Connect & Wi-Fi' received from CUs & vetted by the ERNET

#### Agenda Item No. 2(c)

Proposal: Establishment of Hotspot / Wi-Fi Campus Connect at Central Universities

As per Cabinet Note 21<sup>st</sup> September 2011 on the subject, "Proposal for seeking directions for achieving convergence and synergy under the Centrally Sponsored Plan Scheme namely National Mission on Education through information and Communication Technology (NMEICT) and National Knowledge Network (NKN) and other issues", amongst other items, approval of the Cabinet was sought for provisioning of 400 nodes of LAN on an average to every university/university level institutions (including private universities) & Installation of routers and switches as part of LAN, in all universities in NMEICT list, as per the specifications indicated by NKN. Cabinet has accorded its approval on above.

'Digital India' programme, approved by Government of India and under the programme's Pillar Nine, 'Early Harvest Programme', wherein it has been decided to provide Wi-Fi in all universities connected under NKN in the country, by December 2015.

Principal Secretary to the Prime Minister, in a meeting on 'Digital India', held on 17<sup>th</sup> December, 2014, decided that 'connecting universities by LAN alone is an outdated approach. The 350 universities, which are yet to be covered by the LANs, but have a sanction in place, will now utilise the funds for coverage by Wi-Fi'.

As a follow-up action on the decision taken by Principal Secretary to the PM, as above, a panel of Secretaries; comprising of Secretary, Department of Higher Education (MHRD); Secretary, Department of Information Technology (DeitY); Secretary, Department of Tele-Communication (DOT) represented by Joint Secretary (DOT) and Director General, Unique Identification Authority of India (UIDAI) met on 28<sup>th</sup> April, 2015 and amongst other things, the panel took the following decisions:

- a) Appropriate 'Request for Proposal' (RFP), Memorandum of Agreement (MOA), may be drafted by the Education & Research Network (ERNET), considering area that is to be covered by 'Wi-Fi' bandwidth requirement and the estimated number of users may be taken into account.
- b) The empanelment of vendor(s) shall be done by ERNET, as it is a specialized agency in this area and MHRD would assist it in the empanelment of vendors. The invitation of Expression of Interest by vendors and their empanelment should be a continuous process as was the case with UIDAI.

- c) The proposed system may not be built on existing system and a fresh system should be envisaged. The solution architecture of the proposed system must be finalized in the first instance.
- d) Initially the contract to empanelled vendors may be given for five years.

Accordingly, the MHRD has decided that in the first instance, all Central Universities (CU) shall be established with Hotspot/Wi-Fi connected at their respective campuses. In this direction Additional Secretary (TE) wide his letter No.F.16-28/2009-DL/TEL dated 24<sup>th</sup> August 2015, has requested all CU Vice Chancellors to forward proposal on establishing Wi-Fi at the Campuses, and get the proposals vetted by the ERNET. The DeitY / ERNET on receiving such proposals has deployed experts to each of the CU and these experts have surveyed the CUs, against a set parameters. The ERNET has compiled a consolidated report on this.

The proposals received from CUs and vetted by the ERNET, were put before the 'Domain Expert Committee (DEC) on Connectivity, Networking, Communication & Bulk Storage Servers' (CNC&S), constituted by MHRD (vide its orders No. F. 16-70/2009-DL/TEL, dated 1<sup>st</sup> January, 2015), that met on 26<sup>th</sup> September, 2015, at Shastri Bhawan, to review 32 proposals received from ERNET. The Members offered expert opinion and the minutes of the meeting are at Agenda Item No. 2(a).

The DEC discussed the requirements on 'Campus Connect & Wi-Fi' proposals received from CUs and such proposals vetted by the ERNET and deliberations took place on Technology adopted, budgeting, management on programme implementation, timeline, monitoring mechanism on implementation, process of scaling the 'Campus Connect & Wi-Fi' to the universities. The DEC offered a number of suggestions for meeting the project on Knowledge Network rather than offer simple Internet provision. The DEC has recommended a budget for setting up Hotspot/Wi-Fi Campus Connect at 32 CU as per Para A) on page 11 (of its MoM), at an estimated budget of Rs. 281.73 Crores.

The DEC has further recommended that there is need to include some basic services at each of the CUs to make the network more efficient internally. Therefore the CUs should be allowed to establish Campus services such as (a) Generic services such as e-mail, DAP, Dig in IP (b) Specific services, Compute services and Mapped IP services; for this a Campus web server is required at each of the university and it is recommended to be included in the design and in Bill of Material by the ERNET.

The NMEICT vide a mail from Mr. Anupam Srivastava, ERNET, dated 14<sup>th</sup> October, 2015 has been informed that it has received four more proposals from CUs, as under and the proposals have been vetted by the ERNET, as per Annexure-I.

(B)

Figures in Rs. Lakhs

| S.No | CU University        | Active    | Passive   | Duty   | Sub Total |
|------|----------------------|-----------|-----------|--------|-----------|
|      | Name                 | Component | Component |        |           |
| 1    | Manipur              | 377.53    | 41.02     | 17.60  | 436.15    |
| 2    | Baba Saheb Bhimrao   | 462.12    | 68.33     | 118.72 | 649.16    |
|      | Ambedkar University, |           |           |        |           |
|      | Lucknow              |           |           |        |           |
| 3    | Himachal Pradesh     | 146.78    | 10.10     | 6.70   | 163.58    |
| 4    | Delhi Univ           | 1678.86   | 217.25    | 78.62  | 1974.73   |
|      | Sub Total            | 2665.29   | 336.69    | 221.64 |           |
|      | Total                |           |           |        | 3223,62   |

As stated above, the DEC has recommended proposals submitted by the ERNET regarding setting up Hotspot/Wi-Fi Campus Connect at 32 CU as per Para A) on page 11 (of its MoM), at estimated budget of Rs. 281.73 Crores.

a) Recommendations for 32 CU proposals.

Rs. 281.73 Crores

b) Recommendations for 4 more CU proposals Ref. (B) above. Rs. 32.24 Crores (Recommendations regarding CU Haryana & Jharkhand are in process and presently budgeting @ Rs. 8.72 Crores per university, on pro-rata basis is recommended)

c) Adding budget for 2 universities on pro-rata basis.

Rs. 17.44 Crores

d) Adding @Rs.1/- Crore for Server etc. for 38 CUs.

Rs. 38.00 Crores

Adding a), b), c) & d) for 38 CUs.

Rs.369.41Crores

Principal Secretary to the Prime Minister, in its meeting on the subject 'Digital India', held on 17<sup>th</sup> December, 2014 has further decided that 'As Proof of Concept, DIT will provide the most modern, individualised secure access Wi-Fi coverage with modern security features in 5 universities'. Amongst the five universities being undertaken, the DeitY has informed the MHRD that it is establishing Wi-Fi at Central Universities namely, University of Allahabad & NEHU. The MHRD is therefore not establishing Wi-Fi Campus Connect at these two universities.

Following recommendations of the DEC, CNC&S and further recommendations received from ERNET on four more CUs, thus total budget required for establishing Hot Spot, Wi-Fi Campus Connect at 38 CUs by NMEICT amounts to Rs. 369.41 Crore.

The DEC also recommend the procurement should be done by the Central Universities themselves. The CUs are free to use the vendors empanelled by the ERNET or procure the equipment using the procedure laid down under GFR. The CUs shall be required to operate and maintain the network after it is established at their cost.

The CCEA while approving, National Mission on Education through information and Communication Technology (NMEICT) on 2<sup>nd</sup> January, 2009, and under Sub head 'Physical Activities, Financial Requirements' of the Mission, has approved a budget of Rs.1500.00 Crores on 'Connectivity' head for establishing (i) 2000 nodes for 1 Gbps connectivity at each of the 100 Central Institutions / premier institutions to be connected through BSNL Internet + VPN Plan and (ii) 15-20 nodes for 7.5-10 Mbps connectivity at each of the 18000 Institutions of Higher Learning connected through BSNL Internet + VPN Plan.

It is proposed to meet the budget for establishing Hot Spot, Wi-Fi Campus Connect at 38 CUs amounting Rs. 369.41 Crores, out of budget allocated to NMEICT approved by the CCEA, under 'Connectivity', head.

PAB may consider and approve (i) establishment of Wi-Fi Campus Connect at 38 Central Universities, (ii) approve Rs. 369.41 Crores, as per the recommendations made by the Domain Expert Committee (DEC) on Connectivity, Networking, Communication & Bulk Storage Servers and plan as above and (iii) permit to meet the budget on Wi-Fi Campus Connect at 38 Central Universities, out of 'Connectivity' head under NMEICT.

#### Agenda No. 2 (d)

#### 'Modalities for execution of the Wi-Fi Project'.

- 1. The Project is to establish Campus Wi-Fi in all Universities and in the first instance at Central Universities (CUs).
- The Department of Tele-Communication (DOT), Education & Research Network (ERNET) have been engaged by MHRD to vet the proposals received from VCs of CUs for establishing Campus Wi-Fi in CUs and offer its recommendations on this.
- 3. After seeking the approval from PAB, NMEICT, we need to finalise further processes of establishing the Campus Wi-Fi in CUs.

The following are some of the issues that need to be addressed for possible solutions:

- a) Should the proposals, that are vetted by the ERNET, be forwarded to CUs, or the ERNET be asked to prepare RFP that can be used for tendering.
- b) Should the ERNET be asked to submit list of four or more venders on their panel, who could be asked to take up the job of executing the programme of Campus Wi-Fi in CUs.
- c) Should the funds on Campus Wi-Fi in CUs be transferred to CUs or to ERNET and purchase/work orders on execution of the project be issued by respective CUs or by the ERNET.
- d) If the list of venders on panel with the ERNET are not available, how to go ahead with the Campus Wi-Fi in CUs.
- e) Who will operate the system and after warranty period, who will maintain the system.
- f) In case the ERNET is assigned a work, should the MHRD pay any service charges to ERNET, if yes, how much.

Any other issue that the members may like to raise on Campus Wi-Fi in CUs and deliberate for a solution, with the permission of the Chair.

#### Agenda Item No. 3 (a)

#### **Subject: Appointment of Consultants for Development of SWAYAM Platform**

The MHRD has decided to setup a platform, in the name of SWAYAM' (Study Webs of Active-Learning for Young Aspiring Minds), for hosting and delivery of Indian MOOCs (Massive Open Online Courses). The Hon'ble HRM in a meeting has decided that SWAYAM Platform may be developed by NICSI through NIC. Accordingly, DeitY / NICSI has been entrusted by the MHRD; with the job to engage a 'Consultant' to draft RFP for selection of 'System Integrator' (to develop the SWAYAM platform) and the Consultant shall further monitor the development of SWAYAM platform.

The DeitY provided a list of empanelled consultants, who were invited by the MHRD to submit bids, in a sealed envelope, by 2nd September, 2015. Bids were submitted by two Consulting firms, following two bid system and a successful bidder was selected, based on best Technical & Commercial Bid received and following Standard Operating Procedures. NICSI has accordingly awarded the work to M/s Prince waterhouse Coopers Pvt. Ltd (PwC). M/s PWC have quoted a total cost of Rs. 24,50,000/- for the execution of the project, with service taxes extra.

NICSI has raised a Performa Invoice of Rs. 29,88,510/- (including service tax & NICSI for Operating Margin) for making payment, as per rules, to M/s PWC for execution of above project.

Put up for approval of PAB to engage a Consulting firm for drafting RFP, selection of System Integrator, monitoring of development of SWAYAM platform, to be completed in 4 months of time at a cost of Rs. 29,88,510/-.

#### Agenda No. 3 (b)

To engage a 'System Integrator' for development of SWAYAM Platform.

**'SWAYAM'** (Study Webs of Active-Learning for Young Aspiring Minds)

The Ministry of Human Resource Development has decided that online courses shall be launched by institution of Higher Learning on India based On-Line MOOCs Platform, called SWAYAM. This will help to establish a uniform platform, followed by Server based Cloud Network of our own that will have compatibility to run courses to be delivered by different institutions.

The 29th PAB in its meeting held on 20<sup>th</sup> May 2015, has also decided that 'now onwards all content development projects to be put up for approval before the PAB should be MOOCs compliant only'.

The MHRD has decided that Indian MOOCs Platform shall be run on MHRD's own facility - Cloud Platform and Data Centre - with Mirror Sites. Indian MOOCs Platform, in all respects shall be 'Made in India' including hardware, software, platform, etc. and appropriate open source technologies shall be used. Data Privacy, Security and integrity will be an integral part of the architecture and in the effective realization of Indian MOOCs Platform. Indian MOOCs Platform shall have interoperability; so that the content already developed various stakeholders shall be able to run smoothly on it.

The DOT has been requested by the MHRD to assist in selecting of the System Integrator and in vetting the RFP proposal developed by the Consultant. The tender bids on this shall be invited following open/public tender system. The selection of the System Integrator shall be made following the two-bid system.

It is proposed that the SI would be identified and placed before November 2015. The IT platform SWAYAM is expected to be completed/ finalised by 31<sup>st</sup> March 2016.

The cost of building the IT platform would be finally determined after the tendering process is completed. The tendering process is strictly being done as per GFR Norms.

The PAB, at this stage, is requested to approve 'in principle' to meet the cost of IT Platform, SWAYAM from NME-ICT funds.

#### Annexure-II

| S. No. | Name & Address of University  | Area (in acres) | No. of Buildings<br>covered | Cost of Active<br>Equipment in Lacs<br>(A) | Cost of Passive<br>Equipment In<br>Lacs<br>(B) | Custom Duty in<br>Lacs<br>(C=D+E) | Mandatory 5% duty<br>on Educational<br>Institutes (In<br>Lacs)<br>(D) | Additional 23%<br>duty in absence<br>of CDEC* (In<br>Lacs)<br>(E) | Total Budgetary<br>Cost (Rs. in Lac)<br>(Z=A+B+C) | Remark  |
|--------|---|-----------------|-----------------------------|--|--|-----------------------------------|---|---|---|---|
| 1      | **Jawaharlal Nehru University, New Delhi -110067<br>www.jnu.ac.in   | 412.53          | 77                          | 1994.34                                    | 310.85   | 94.45                             | 94.45   |   | 2399.64   | Existing N/w up-<br>gradation, 32 building<br>require OFC<br>connectivity,                            |
| 2      | JamiaMillia Islamia, New Delhi  | 216             | 43                          | 687.79                                     | 155.2  | 31.11                             | 31.11   |   | 874.1   |   |
| 3      | IGNOU, New Delhi, MaidanGarhi, New Delhi -110 068.<br>FAX - 91 -011-2686 2598, www.ignou.ac.in            | 151             | 46                          | 397.04                                     | 120.51   | 18.51                             | 18.51   |   | 536.06  |   |
| 4      | BHU, Varanasi -221 005, FAX-91-0542-368174 vc_bhu@banaras.ernet.in  | 1300            | 242                         | 4271.63                                    | 795.64   | 201.24                            | 201.24  |   | 5268.51   | Existing N/w 15 years old and end of life and end of support  |
| 5      | AMU, Aligarh -202 002, FAX - 0571-2700528<br>www.amu.nic.in   | 1155.46         | 110                         | 878.23                                     | 58.78  | 40.21                             | 40.21   |   | 977.22  |   |
| 6      | Visva Bharti Shantiniketan, West Bengal –731 235, FAX–91-03463-262672<br>www.vbharat.ac.in                | 1130            | 111                         | 1,195.78                                   | 207.53   | 56.18                             | 56.18   |   | 1459.49   | All existing active<br>networks obsolete<br>and end of life. SM<br>Fiber available in 66<br>locations |
| 7      | Hyderabad University, Hyderabad-500 046, FAX-91-040-<br>3010145, 3010120, www.uohyd.ernet.in              | 1785            | 71                          | 1012.96                                    | 99.8   | 46.93                             | 46.93   |   | 1159.69   | Augmentation of<br>existing N/w,<br>Switches Obsolete,<br>SM Fiber available in<br>max. places        |
| 8      | Pondicherry Univ, Pondicherry–605 014, Exchange – 2654200/300<br>FAX –091-0413-2655 265, www.pondiuni.org | 800             | 61                          | 790.23                                     | 62.83  | 37.17                             | 37.17   |   | 890.23  |   |
| 9      | Assam University, Silchar, ASSAM – 788 011, FAX -03 842-<br>32779, 70802, www.aus.ac.in                   | 600             | 68                          | 413.88                                     | 44.30  | 18.94                             | 18.94   |   | 477.12  |   |
| 10     | Tezpur Univ. TEZPUR –784 028<br>ASSAM, FAX -03712-21539, 267006<br>www.tezu.ernet.in                      | 261             | 42                          | 756.76                                     | 147.15   | 35.67                             | 35.67   |   | 939.58  |   |
| 11     | **Nagaland University ,Kohima Nagaland FAX-03 70-<br>2290246, www.Nagauniv.org                            | 802             | 38                          | 511.87                                     | 116.01   | 128.14                            | 22.88   | 105.26  | 756.02  |   |
| 12     | MizoramUniversity P. B. No. 190, Aizawal -796012, Mizoram   | 972             | 55                          | 427.16                                     | 54.37  | 20.23                             | 20.23   |   | 501.76  |   |
| 13     | Maulana Azad National Urdu University, Gachibowli,<br>Hyderabad- 500032                                   | 200             | 21                          | 346.66                                     | 47.55  | 89.36                             | 15.96   | 73.40   | 483.57  |   |
| 14     | Mahatama Gandhi Antarrashtriya Viswavidyalaya, P. B No.16<br>Panchteela, Wardha- 442 001, MP              | 200             | 18                          | 360.20                                     | 36.47  | 94.98                             | 16.96   | 78.02   | 491.65  |   |
| 15     | **Rajiv Gandhi University, Itanagar-791112  | 306             | 31                          | 331.53                                     | 53.01  | 15.42                             | 15.42   |   | 399.96  |   |
| 16     | Sikkim University, Gangtok, Sikkim  | 753             | 27                          | 282.22                                     | 19.56  | 73.99                             | 13.21   | 60.78   | 375.77  |   |
| 17     | Tripura University, Tripura Suryamaninagar-799130   | 79              | 28                          | 374.27                                     | 109.12   | 17.29                             | 17.29   |   | 500.68  |   |
| 18     | English and Foreign Languages University, O.U Campus,<br>Hyderabad 500 007                                | 33              | 12                          | 285.13                                     | 25.69  | 72.34                             | 12.92   | 59.42   | 383.16  |   |
| 19     | Indira Gandhi National Tribal University, Amarkantak  | 370             | 32                          | 717  | 234  | 223.5                             | 55.93   | 167.57  | 1174.5  | No Network  |
| 20     | Hemawati Nandan Bahuguna Garhwal University, Srinagar-<br>246174,Uttarakhand                              | 268             | 83                          | 1466.95                                    | 245.45   | 383.65                            | 68.51   | 315.14  | 2096.05   | 4 distributed<br>campuses without<br>Intranet   |

| S. No. | Name & Address of University  | Area (in acres) | No. of Buildings<br>covered | Cost of Active<br>Equipment in Lacs<br>(A) | Cost of Passive<br>Equipment In<br>Lacs<br>(B) | Custom Duty in<br>Lacs<br>(C=D+E) | Mandatory 5% duty<br>on Educational<br>Institutes (In<br>Lacs)<br>(D) | Additional 23%<br>duty in absence<br>of CDEC* (In<br>Lacs)<br>(E) | Total Budgetary<br>Cost (Rs. in Lac)<br>(Z=A+B+C) | Remark  |
|--------|---|-----------------|-----------------------------|--|--|-----------------------------------|---|---|---|---|
| 21     | Central University of Tamil Nadu, C/o Collectorate Annexe,<br>Tiruvarur 610 001                           | 500             | 18                          | 464.30                                     | 69.47  | 120.83                            | 21.58   | 99.25   | 654.6   |   |
| 22     | Central University of Rajasthan,NH-8, Bandar Sindri,Dist-<br>Ajmer-305801                                 | 518             | 21                          | 350.69                                     | 76.77  | 16.21                             | 16.21   |   | 443.67  |   |
| 23     | Central University of Orissa, Qtr. No. Type-C, Block-4, New Govt. Colony, Gajpatinagar, Bhubneswar 751017 | 430             | 7                           | 306.62                                     | 37.35  | 81.06                             | 14.48   | 66.59   | 425.03  |   |
| 24     | Central University of Karnataka,<br>Jnana Ganga,<br>Gulbarga University Campus,<br>Gulbarga-585 106       | 654             | 28                          | 828.23                                     | 181.91   | 216.71                            | 38.70   | 178.01  | 1226.85   | Upgradation of Core<br>S/w & Distribution<br>S/w, SM Fiber<br>required, existing<br>network out of<br>support |
| 25     | **Central University of Kerala, Jimanis, SP-16/375,<br>Sreekaryam, P.O. Trivandrum-695017,                | 310             | 8                           | 149.61                                     | 13.69  | 6.66                              | 6.66  |   | 169.96  |   |
| 26     | Dr. Harisingh Gour Vishwavidyalaya,<br>Sagar (M.P.)   | 1312            | 52                          | 586.39                                     | 199.05   | 27.18                             | 27.18   |   | 812.62  |   |
| 27     | Guru GhasidasVishwavidyalaya,<br>Bilaspur   | 664             | 33                          | 448.31                                     | 85.11  | 117.19                            | 20.93   | 96.26   | 650.61  |   |
| 28     | Central University of Punjab, D-13, Civil Station, Bhatinda-<br>151001.                                   | 140             | 18                          | 462.18                                     | 49.38  | 21.54                             | 21.54   |   | 533.1   |   |
| 29     | Central University of South Bihar, Camp Office: BIT Campus, Patna   | 450             | 8                           | 246.77                                     | 17.83  | 11.33                             | 11.33   |   | 275.93  |   |
| 30     | Central University of Gujarat 95/1, Sector-2A,Gandhinagar-<br>382007                                      | 260             | 16                          | 156.17                                     | 18.12  | 7.09                              | 7.09  |   | 181.38  |   |
| 31     | Central University of Jammu 8/8, Trikuta Nagar, Jammu Tawi  | 610             | 11                          | 330.94                                     | 33.73  | 81.43                             | 14.54   | 66.89   | 446.1   |   |
| 32     | Central University of Kashmir, Bagi-Hyder, Hyderpora<br>Srinagar-190004                                   | 2.3             | 11                          | 107.29                                     | 81.43  | 19.81                             | 3.54  | 16.27   | 208.53  |   |
| 33     | ** Manipur University   | 116.15 Hectr    | 31                          | 377.53                                     | 41.02  | 17.60                             | 17.60   |   | 436.15  |   |
| 34     | Baba Saheb Bhim Rao Ambedkar University   | 250             | 20                          | 462.12                                     | 68.63  | 118.72                            | 21.20   | 97.52   | 649.47  |   |
| 35     | Central University of Himachal Pradesh  | 150             | 6                           | 146.78                                     | 10.1   | 6.7                               | 6.70  |   | 163.58  |   |
| 36     | Delhi University, Delhi   | 69              | 108                         | 1678.86                                    | 217.25   | 78.62                             | 78.62   |   | 1974.73   |   |
|        | Total for 0   | Campus Connecti | vity through Wi-Fi          | 24604.42                                   | 4144.66  | 2647.99                           | 1167.60   | 1480.39   | 31397.07  |   |

<sup>\*</sup>CDEC = Custom Duty Exemption Certificate

<sup>\*\*=</sup> Proposal based on information/details provided by the University. No site survey has been done ERNET consultancy charges @ 10% of the total project cost + service Tax extra Taxes/VAT/Govt. Levis/Duties as applicable extra

### Government of India Ministry of Human Resource Development Department of Higher Education

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MINUTES OF THE 29<sup>th</sup> MEETING OF "PROJECT APPROVAL BOARD" OF NATIONAL MISSION ON EDUCATION THROUGH INFORMATION AND COMMUNICATION TECHNOLOGY (NMEICT) HELD ON 20<sup>th</sup> MAY, 2015 AT 15:00 HRS AT CONFERENCE ROOM, ROOM NO. 112 SHASTRI BHAWAN, NEW DELHI-110 001.

The 29<sup>th</sup> Meeting of the Empowered Committee of Experts (Project Approval Board (PAB)) of National Mission on Education through Information and Communication Technology (NMEICT) was held on 20<sup>th</sup> May 2015 At 15:00 Hrs. at Conference Room, Shastri Bhavan, New Delhi, under the Chairpersonship of Secretary, Department of Higher Education, Ministry of HRD.

The list of Members and Invitees who participated in the Meeting is at **Annexure-I**.

Joint Secretary (TEL) and Mission Director (NMEICT) & Member Secretary, PAB welcomed the Members of the PAB and informed them about the Agenda in brief. Thereafter, with the permission of the Chair, the Agenda Items were discussed and the following decisions were taken: -

#### Agenda Item No. I

## Confirmation of Minutes of the 28<sup>th</sup> Meeting of the Project Approval Board held on 26<sup>th</sup> June, 2014.

Member Secretary, PAB, invited observations from the Members on the Minutes of the  $28^{th}$  Meeting of the PAB. Since all the Members agreed and no observations on the Minutes were received from any Member, the Minutes of the  $28^{th}$  Meeting of the PAB held on  $26^{th}$  June, 2014 were confirmed.

#### Agenda Item No. II

#### **Action Taken Report (ATR)**

Member Secretary, PAB placed the Action Taken Report (ATR) regarding the decisions taken during the 28<sup>th</sup> Meeting of the PAB held on 26<sup>th</sup> June, 2014 before the Members. The ATR submitted was noted by the PAB. However, in the light of developments that have taken place during the past eleven months, the Members deliberated upon some of the decisions taken in the last PAB Meeting which needed review and the reviewed decisions are as under:-

#### Agenda Item No. 4 & Agenda Item No. 8 of the 28th Meeting of the PAB

Regarding "Empanelment of Government Undertakings and State IT Organizations for Installing LANs at Universities" and "Providing 1+1 Redundancy to all Centrally Funded Institutions in North-Eastern States, J & K and hilly areas", the Members were of the view that the TEL Bureau may convene a Meeting of Secretary, Higher Education, Secretary, Telecom; Chairman, Domain Expert Committee, NMEICT on Connectivity; and Education Secretaries of the States, to review of the status of

connectivity provided under NMEICT & NKN to Universities and Colleges in various States. Further, issues concerning connectivity, its use and ways to provide Wi-Fi connectivity at Universities and Colleges be discussed in this Meeting. The decisions and the outcomes of this Meeting, together with technical recommendations of the Domain Expert Committee, NMEICT on Connectivity would be placed before the PAB for taking a view.

It was also decided to seek State-wise list of Institutions where connectivity has been established, sending the individual lists to the respective State Governments with a request to review the functioning of connectivity, its down-time and up-time etc. on a prescribed format and to send bimonthly reports to the NMEICT. The NMEICT should collate all such reports and map the data with reports received from BSNL and MTNL to get a larger picture of the actual status of connectivity.

It was informed to PAB that a meeting was convened by Principal Secretary to the Prime Minister on 17<sup>th</sup> December, 2014 wherein it was decided that:-

**Wifi in universities**: The ₹40.00 Lakh/University that is available in 350 universities for LAN will now be used for providing Wi-Fi facility. To do this:-

- a. DoHE wall finalise a base document by 26.12.2014. This base document will be used by universities to tender for Wi-Fi installation.
- b. DoHE will take the assistance of DoT and DIT in finalising the base document. A panel consisting of Secretaries of Higher Education, IT and Telecom and DG, UIDAI will finalize the base document and also a mechanism for accelerating procurement of Wi-Fi through empanelled vendors.
- c. The target date for providing Wi-Fi coverage in 350 universities is 31.3.2015.

In view of the above decision, a meeting of the panel consisting of Secretaries of Higher Education, IT and Telecom and DG, UIDAI took place on  $28^{th}$  April, 2015 wherein the following decisions were taken:-

- (i) It was felt to opt for the outsourced model so that Universities do not have to invest for Capital Expenditure.
- (ii) Appropriate Request for Proposal (RFP), Memorandum of Agreement (MoA) and SLA to be signed with selected vendors for Wi-Fi provisioning and Memorandum of Understanding (MoU) to be signed by Universities may be drafted by the Education & Research Network (ERNET) in three weeks' time for consideration of this Panel. While drafting these documents, the experience of UIDAI in empanelment of agencies may be taken into account for provisioning of 'Wi-Fi' in University campuses.
- (iii) While drafting the RFP, the area that is to be covered by 'Wi-Fi', bandwidth requirement and the estimated number of users may be taken into account.
- (iv) The empanelment of vendor(s) shall be done by the ERNET as it is a specialised agency in this area and MHRD would assist it in the empanelment of vendors. The invitation of Expression of Interest by vendors and their empanelment should be a continuous process as was the case with UIDAI.
- (v) The proposed system may not be built on existing system and a fresh system should be envisaged. The solution architecture of the proposed system must be finalised in the first instance.
- (vi) A model of installation of required instruments/equipment to install and to maintain 'Wi-Fi' services, as per requirement, by the vendor selected through

due process where the payment is on the basis of uptime, strength of signal, usage etc. may be the best, given the present scenario. It was also felt that a system to generate the reports about uptime, strength of signal, usage etc. automatically may be put in place so that bills for the vendors may also be generated automatically.

- (vii) Initially the contract to empanelled vendors may be given for five years.
- (viii) Guidelines for Users/Universities may be drafted by the ERNET alongwith drafting of the RFP, MoA, SLA and MoU.
  - (ix) The panel will meet again after three weeks to take stock of the situation and take further decisions.

The Members also reviewed the issue of addressing the redundancy to Optical Fiber Connectivity already provided to the Institutions in the North-Eastern States, J&K and hilly areas. The Members felt that providing another Optical Fiber link at these places, as a redundancy link, may not be that fruitful. Prof. SV Raghavan, Chairman, Domain Expert Committee, NMEICT on Connectivity reminded the Chairman, PAB that he has already suggested that a letter, the draft of which has already been submitted by him, may be sent to Secretary, Department of Space (DoS) requesting him to allocate ten Transponders on INSAT-15 (to be launched around September, 2015) for establishing the redundancy link in the North-Eastern States, J&K and hilly areas.

The PAB while noting the above developments agreed to them. The PAB also approved that the NMEICT should monitor the functioning and availability of appropriate level of connectivity through BSNL and MTNL as a case may be. The PAB further approved that:-

- redundancy links be established in the North-Eastern States, J&K and hilly areas using ten Satellite Transponders, subject to the availability of funds with NMEICT.
- a request letter as suggested by Prof. SV Raghavan on this be sent to Secretary, DOS as soon as possible.

#### Agenda Item No.14 of the previous PAB

"Consulting work for review and amendment of applicable UGC/AICTE Regulations for incorporating Technology Enabled Learning in Higher Education".

The Members were informed that the Project could not be awarded. However, the Members recommended that the Committee constituted to redraft the DECI Bill may be approached by the MHRD to consider the recognition of award of certificates & degrees through the ICT mode by NMEICT such as MOOCs, NPTEL, e-content etc. expeditiously.

The Members were informed that the Committee constituted to redraft the DECI Bill has already submitted its report and it would be appropriate to approach the UGC and the AICTE and the Regulator of Distance Education to have appropriate Regulations regarding the recognition of award of certificates & degrees through the ICT mode by NMEICT such as MOOCs, NPTEL, e-content etc. so that the students do not face any problem or uncertainty.

#### Agenda Item No. 16 of the previous PAB

The issue regarding Office Space for Mission Secretariat, NMEICT was discussed. After consideration of various options, it was decided that the required space for NMEICT may be made available by the All India Council of Technical Education (AICTE)

in their new building now ready at Nelson Mandela Road. The TEL Bureau was authorised to approach the AICTE for this.

#### Agenda Item No III:

#### **Items for Ratification**

The issues concerning NMEICT, wherein Secretary, Higher Education in his capacity as Chairman, PAB has taken the following decisions, were put before the Members for ratification. The issues listed were discussed and the Members ratified the decisions taken by Secretary, Higher Education as under:-

#### a) Constitution of DTH Operations & Monitoring Group (OMG).

The Members were informed that the MHRD vide Order F. No. 01-01/2014-TEL, dated 16<sup>th</sup> January, 2015, has reconstituted the 20 Member Domain Expert Committee called "DTH Operations & Monitoring Group (DTH-OMG)" under the Chairmanship of Prof. SV Raghavan, Scientific Secretary, Office of the Principal Scientific Advisor, Government of India, and the Terms of Reference of the Group are also spelt out in this Order.

The 'DTH-OMG' as one of the three Domain Expert Committees now replaces the 15 Member 'DTH Committee' approved by the 'National Apex Committee', NMEICT in the 16<sup>th</sup> PAB Meeting, held on 1<sup>st</sup> September, 2010.

The PAB ratified the Constitution of the DTH Operations & Monitoring Group (OMG) with the amendment that the Member-Secretary of this Committee will be notified as the 'Consultant looking after the work of DTH in NMEICT' and not by name as appearing now in the Order. The PAB further authorized the Mission Director to issue a revised order to this effect.

#### b) List of 213 Institutions and copy of a Standard MOU.

The Members were briefed that the "DTH Committee" has recommended the setting up of 213 Teaching Ends (TEs) for transmission of live content for the proposed 50 DTH Channels and creation of requisite content. A list of Institutions where the TEs are being established include Institutions like the Central Universities (CUs), Indian Institutes of Technology (IITs), National Institutes of Technology (NITs), National Institutes of Technology (NITs), National Institutes of Technology (NITs), National Institutes of Management (IIMs), Consortium for Educational Communication (CEC) & EMMRCs, Indira Gandhi National Open University (IGNOU) & State Open Universities, Institutions of National Importance, State & other Universities, Agricultural Universities, Medical Institutions etc., was circulated and it was informed that this list was approved by former Secretary, Higher Education & Chairman, PAB along with a standard MoU. The Members were further briefed that the TEL Bureau has since re-visited the MoU and the revised MOU was tabled (Annexure-II) and it was informed that the Integrated Finance Division (IFD) of MHRD and the Ministry of Law & Justice (ML&J) shall also vet the MoU after its in-principle approval by the PAB.

The PAB approved the decision taken in selection of the 213 TEs and inprinciple approved the MoU re-visited by the TEL Bureau and authorized the Nodal Officer/Director (ICT), Department of Higher Education to sign the MoU after the above mentioned vetting and completion of other necessary formalities.

#### Agenda Item No. III. 3

This Agenda Item was relisted under the heading 'Miscellaneous Items' (Agenda – IV D).

#### Agenda IV A, Administrative issues:

#### Agenda IV A (1)

#### **Engaging additional Technical & Secretarial Support Staff for NMEICT**

The Members were informed that presently, only 3 Senior Consultants are engaged in the Mission, who are assigned more than 100 sanctioned Projects to mentor, guide, monitor, review and report as the representatives of MHRD/NMEICT through attending PRSG Meetings, attend work related to the three Domain Expert Committees and the PAB Meetings etc., and are assisted by a Computer Operator each. Further new initiatives have been taken by the NMEICT such as Wi-Fi in all Universities, National Digital Library, CHEERS, MOOCs etc. and as such additional manpower is urgently required.

The Members were informed that at present the NMEICT has 30 Vacant positions, approved by the PAB and there is a proposal to fill 13 of these vacant positions.

The PAB approved the proposal to engage: 2 Senior Consultants; 1 Consultant; 3 Junior Consultants; 2 Secretarial Support Staff; 2 Office Assistants and 3 MTS/Messengers for NMEICT as per norms.

#### Agenda IV A (2).

Enhancement of Consultancy Fee of Senior Consultants and the Salary of other Contractual Supporting Staff working in TSG-EdCIL and re-designation of Senior Consultants.

The Members were informed that the consultancy fee of 2 Senior Consultants (recruited by EdCIL through regular selection process), was fixed at Rs. 90,000/-consolidated w.e.f. 1st April, 2012 consequent to the decision of the 24th PAB Meeting held on 4th October, 2012. It continues to be Rs. 90,000/- even now and has been frozen since 1st April, 2012. In addition, other supporting staff at various levels has also not been given any raise since September, 2013. The Members were informed that the personnel working in the Mission have been demanding appropriate and regular annual raise commensurate with inflation as well as their performance.

a) The PAB approved the introduction of annual raise in consulting fee/salaries of Senior Consultants/Supporting Staff engaged in NMEICT, commensurate with inflation as well as their performance as per the table given in the Agenda Note. However, the PAB felt that for all personnel including Senior Consultants, an appropriate upper limit of consolidated fee/salary has to be specified by EdCIL, to provide such relief to all the personnel recruited by EdCIL for NMEICT. The PAB further recommended that within the new ceiling so specified by EdCIL, they may

follow the rules concerning performance rating for annual increase to all personnel engaged for NMEICT.

b) The PAB also approved to re-designate the incumbent 'Senior Consultants' recruited by EdCIL through regular selection process in NMEICT, as "Chief Consultants" without any additional financial outgo because of this redesignation. This would not add to the presently sanctioned strength of Consultants for NMEICT.

#### (Agenda IV A 3)

Delegation of financial powers for TSG-EdCIL expenditure to Nodal Officer (NMEICT).

The Members were briefed regarding the proposal for delegation of financial powers to the Nodal Officer (NMEICT) for expenditure up to ₹5.00 Lakh.

The PAB deliberated and felt that the Apex Committee has delegated Financial Powers of NMEICT to 'Joint Secretary (TEL) & the Mission Director' and such powers cannot be further delegated by the JS (TEL) & Mission Director to Nodal Officer (NMEICT). However, financial powers up to ₹5.00 Lakh for routine and administrative activities and small purchases may be delegated to Nodal Officer (NMEICT) with prior approval of Chairman, Apex Committee i.e. the Hon'ble Minister for Human Resource Development.

#### Agenda IV A (4).

Extension for continuing NMEICT Projects pending proposed review/evaluation by an Independent Agency for large Projects and by respective PRSGs for smaller Projects.

The Members were informed that all NMEICT Projects were given last extension for completion up to 30<sup>th</sup> September, 2014 and they were advised to complete the Projects and send Completion Reports to the Mission Secretariat. It is now proposed that before certifying as satisfactory, the completion of the Projects, particularly the large Projects with a sanction amount exceeding ₹1.00 Crore, an independent agency may be asked to evaluate and review the Project outcomes.

The PAB approved the evaluation and review of Project outcomes of all Projects above ₹1.00 Crore by an Independent Agency and evaluation and review by the respective PRSGs for remaining Projects. The PAB also approved the extension for all continuing Projects till 31st December, 2015, with effect from the expiry of last approval, without sanction of any additional amount, so that the review of the Projects can be completed. The PAB also authorized the Chairman, PAB to approve the selection of an independent agency for reviewing these Projects.

#### Agenda IV A (5).

Budget Estimate for TSG-EdCIL & Mission Secretariat NMEICT for the Financial Year 2015-16

The Members were briefed that EdCIL as TSG maintains and supports the Mission Secretariat of NMEICT & the salary of staff etc. The disbursement to EdCIL is presently

linked with 1% of NMEICT Budget Outlay as per Para-7(f) of the note approved by the CCEA. The Budget estimated towards recurring administrative expenses at present ranges between ₹250.00 - ₹275.00 Lakh.

The PAB approved the Budget Estimate of ₹200.00 Lakh for TSG-EdCIL and Mission Secretariat, NMEICT; as the budget outlay for NMEICT in 2015-16 is ₹200.00 Crore. It was also approved that the TSG-EdCIL may be entrusted with the additional support work related to new Schemes CHEERS and SWAYAM.

#### Agenda IV A (6).

Reconstitution of Selection Committee for Interview of Senior Consultants & Consultants of NMEICT.

The Members were informed that the PAB in its 6<sup>th</sup> Meeting held on 29<sup>th</sup> May, 2009 has approved Selection Committee for interview of 'Consultants', which is around 6 years old and outdated and were therefore requested to reconstitute the Selection Committee.

The PAB therefore considered reconstituting the Selection Committee for interviewing Senior Consultants, Consultants & Junior Consultants for NMEICT as under:-

- ☐ Mission Director (NMEICT)
- □ Representative of EdCIL
- □ Domain Experts to be nominated by EdCIL in consultation with Mission Director (NMEICT).

#### Agenda-IV C

Items recommended by Standing Committee, NMEICT, as under, were taken up for deliberation and decision by the PAB.

#### Agenda-IV C (1)

Creating Digital Learning Environment for design in India (e-Kalpa) Phase-II. Project Investigator (PI): Prof. Ravi Poovaiah, IIT Bombay.

The Members were briefed that this is a continuing Project, wherein Phase-I has been completed and Phase-II of the Project has been recommended by the Standing Committee (SC) in its Meeting held on 25<sup>th</sup> August, 2014 with the budget outlay of ₹8.40 Crore & the SC has also offered some observations.

The PAB approved e-Kalpa Phase-II at a total cost of ₹8.40 Crore with the stipulation that the e-content developed under the Project may be assessed by an independent body to take into consideration the opinions of learners. It was also recommended that the name of the Project website be changed to a new familiar name which directly relates with this Project.

#### Agenda-IV C (2).

Entrepreneurship Development for the Educated Youth in India. PI: Prof. Prem Chander, Visiting Professor, IIM Ahmadabad

The Members were informed that the SC has recommended in-principle the development of 10 Courses by the PI in two years' time at the rate recently approved by the PAB, i.e., ₹29,000/- for one hour of e-content development (each course of 40 Hours) and ₹2,000/- for Transcription. However, in the first instance, development of 5 Courses in MOOCs format with a budget of ₹62.00 Lakh in the first year is proposed.

The PAB decided that now onwards all content development Projects to be put up for approval before the PAB should be MOOCs compliant only. The PI should therefore be asked to re-submit the proposal for development & running of these courses on MOOCs format to the DEC, once the recommendations of the Costing Committee on MOOCs are considered, finalized and notified.

#### Agenda-IV C (3)

National Consultation for Educational Technology for Establishment of Indian Association of Educational Technology (IAET)

PI: Dr. Jayashree Shinde, SNDT Women's University, Mumbai.

The SC has recommended a proposal to establish "Indian Association of Educational Technology (IAET)" as a common platform for pooling together of expertise in the field of Educational Technology. On the recommendation of the SC the PI has revised the DPR for a 'National Consultation Conference' with NMEICT's funding for grant of ₹18.50 Lakh for the Conference.

The PAB observed that formation of Associations is not in the mandate of NMEICT; accordingly, the proposal was not approved.

#### Agenda-IV C (4)

e-Training Environment for Training Technical (Polytechnic) Teachers & Students PI: Dr. S. Mohan, Director NITTTR Chennai.

This is a proposal to develop 80 courses for Polytechnics by 4 NITTTRs with NITTTR Chennai as the Anchor Institution. The SC on 25<sup>th</sup> August, 2014 has recommended a budget of ₹13.40 Crore, as first instalment to initiate the program. The SC also advised that PRSG for this program is to be constituted.

The PAB observed that the PI has since left the NITTTR and no further interest has been shown by any of the NITTTRs after that. The proposal was therefore not approved.

#### Agenda-IV C (5)

E-content creation in the area of Economics, Mathematics, Commerce, History, Zoology & Botany.

PI: Prof. Ramesh Kumar Gautam, Director, ILLL.

The Members were briefed that this is a continuing Project and the PI has requested for release of the second instalment. The SC in the Meeting held on  $8^{\rm th}$ 

September, 2014, recommended the release of ₹50.00 Lakh as next installment out of 2 Crore budget already approved by the PAB.

The PAB approved the release of the next instalment as recommended by the SC.

#### Agenda-IV C (6)

**Creation of Social Work Education Network** 

PI: Dr S. Parasuraman, Director, TISS, Mumbai.

The SC has forwarded a Project recommending Creation of Social Work Education Network with a budget to implement setting up of six subject hubs in six regions including North, South, East, West, North-East and Central India. There would be 30 Colleges affiliated to the six hubs based on the accessibility, resources and student strength. Courses Offered – 2000 teaching learning hours will be created contributing to 4 complete courses and part content for 3 courses. Teachers Training – Two batches of Teachers Training shall be organized for 100 trainers.

The PAB feels that the Project does not cover the objectives of NMEICT. Further the Indian Council of Social Sciences Research (ICSSR), which has mandate for Social Sciences, can be approached for seeking funding of this Project. The proposal was therefore not approved.

#### Agenda-IV C (7)

Institutional Network and Virtual Knowledge Repository for Arts and Humanities Education in India-Sahapedia.

PI: Prof. Navjyoti Singh, IIIT Hyderabad.

The proposal is to build an Institutional Network and Virtual Knowledge Repository for Arts and Humanities Education in India, engaging nine partner Institutions, both Universities and Cultural Organizations. 11 content modules + 3 proofs of concept/Detailed Project Proposals (DPPs)will be produced.

The PAB decided that now onwards all content development Projects to be put up for approval before the PAB should be MOOCs compliant only. The PI should therefore be asked to re-submit the proposal for development & running of these courses on MOOCs format to the DEC, once the recommendations of the Costing Committee on MOOCs are considered, finalized and notified.

#### Agenda-IV C (8)

Seamless Integrated e-Learning Knowledge Management System for Commerce Education at National Level COMMTEL.

PI: Prof. Bhanu Murthy, Khalsa College, Delhi University.

The Project proposal is to build courses in commerce subjects. The SC has recommended the PI to concentrate on the development of lectures only to establish proof of concepts and recommended 156 Video Lectures, 300 e-LORs, Transcription,

Question Bank & Workshop and after due-diligence a budget of ₹69.36 Lakh is recommended.

The PAB decided that now onwards all content development Projects to be put up for approval before the PAB should be MOOCs compliant only. The PI should therefore be asked to re-submit the proposal for development & running of these courses on MOOCs format to the DEC, once the recommendations of the Costing Committee on MOOCs are considered, finalized and notified.

#### Agenda-IV C (9)

Intelligent Tutoring Systems for Primary & Secondary school Subjects. PI: Prof. Amey Karkare, IIT Kanpur.

The Project proposal is to develop automated intelligent tutoring systems for various domains, including Physics, Chemistry and Mathematics topics for Primary and Secondary Schools and for Engineering Courses.

It was observed that the PI intends to develop tutoring systems for Primary and Secondary Schools and the Mission is mandated for funding Projects concerning Higher education only.

The PAB did not approve the proposal 'Intelligent Tutoring Systems for Primary & Secondary School Subjects', as they do not fall in the mandate of NMEICT.

#### Agenda-IV C (10)

National Programme on Technology Enhanced Medical Education PI: Prof. M. Manivannan, IIT Madras.

The proposal is to develop prototypes of *basic medical education ICT tools*, comprising haptic feedback devices, sensors and actuators and computer/network/multimedia equipment. There are very few proposals received by Mission, concerning Medical discipline. The Project is a pilot Project to focus at present only on two deliverables, instead of 10 deliverables as proposed in the original proposal. The timeline has been reduced to six months, instead of three years.

The PAB felt that Project proposals on Medical Education do not fall under the purview of MHRD; therefore, the proposal was not approved.

#### Agenda-IV C (11)

"Running Online Courses for Polytechnics and Skill Development" by NITTTR, Kolkata as Nodal Agency as extended arm of MHRD.
PI: Prof Phalguni Gupta, NITTTR, Kolkata.

The Project proposal is to set up the Massive Open Online Courses (MOOCs) platform and to be named as Institute of Future Learning (IFL), as and when the SWAYAM platform is launched. The PI and the Institutes may be involved in the preparation of content in the form of MOOCs. The SWAYAM platform can be provided to

NITTTR, Kolkata instead of a separate platform proposed to be created by NITTTR, Kolkata.

The PAB decided that now onwards all content development Projects to be put up for approval before the PAB should be MOOCs compliant only. The PI should therefore be asked to re-submit the proposal for development & running of these courses on MOOCs format to the DEC, once the recommendations of the Costing Committee on MOOCs are considered, finalized and notified.

#### Agenda-IV C (12)

Establishing a Centre of Excellence (CoE) for Research into Indian Knowledge Systems (RIKS).

PI: Dr. P. Ramanujan, C-DAC, Bangalore.

The PI proposes to create online, ICT-enabled, PG-level, Sanskrit academic e-Content for seven disciplines in 4-quadrant approach to enhance and upgrade Central Sanskrit University curricular courses of UGC recognition.

The PAB did not approve the proposal 'Establishing a Centre of Excellence (CoE) for Research into Indian Knowledge Systems (RIKS)' and was of the view that:-

- (a) It would be better if e-Content, as proposed, are MOOCS compliant.
- (b) It would be further better if the PI collaborates with an Academic Institution in the domain of Sanskrit language.

#### Agenda-IV C (13)

Learning by Doing (LBD) based course Content Development. PI: Prof. Sandhya Kode, IIIT Hyderabad

The proposal is an ongoing Project and on the recommendations of the SC, the PAB had approved this Project at an estimated amount of ₹119.00 Lakh for development of 17 courses, out of which ₹35.70 Lakh have already been sanctioned. The PRSG in its Meeting has found the progress satisfactory. The SC in-principle has recommended for enhancement of the budget of the Project as per rate approved by the PAB for the CEC.

The PAB approved the release of the next instalment as recommended by the SC, if not already released so far.

#### Agenda-IV C (14)

Design and Development of Neuro-Endo Trainer for Neurosurgery Psychomotor Skills Training.

PI: Prof. Ashish Suri, AIIMS in collaboration with IIT Delhi

The proposal before the PAB is to develop prototypes of basic medical education ICT tools, comprising haptic feedback device, sensors and actuators and computer/network/multimedia equipment.

The PAB felt that Project Proposals on Medical Education do not fall under the purview of MHRD; therefore, the proposal was not approved.

#### Agenda-IV C (15)

Production of e-content courseware development in Bachelor of Commerce, Bachelor of Business Management.

PI: Prof. H. Rajashekar, University of Mysore.

The proposal before the PAB is to develop e-content Courseware for 26 subjects under Phase-I & under Phase II production of additional 22 subjects shall be undertaken. Each subject consists of two Courses of 40 hours each and the subjects include development in Bachelor of Commerce, Bachelor of Business Management & Translation.

The PAB decided that now onwards all content development Projects to be put up for approval before the PAB should be MOOCs compliant only. The PI should therefore be asked to re-submit the proposal for development & running of these courses on MOOCs format to the DEC, once the recommendations of the Costing Committee on MOOCs are considered, finalized and notified.

#### Agenda-IV C (16)

Dissemination of NMEICT products through Google. PI: Mr. Rachit Jain, Google India Private Ltd.

The proposal is to launch massive publicity campaign to make the student and teacher communities aware of the major products of the NMEICT and to use a phased approach for the online promotions by Google India using the Google Platform.

The PAB did not approve the proposal, 'Dissemination of NMEICT products through Google' as it felt that it would be better to use an indigenous platform for the purpose.

#### Agenda-IV C (17)

Policy Decision on Wi-Fi Campus Connect in University Campuses connected through NMEICT.

The PAB was informed that the BSNL out of 403 universities having provided with 1 Gbps connectivity has further provided 400 node LAN in 50 Universities only and is now in the process of establishment of Wi Fi connectivity in 48 Universities. There are lots of complaints received from various users on non-satisfactory performance of BSNL. Further, once the migration of NMEICT networks to NKN is done, the charges for connectivity by BSNL should not be paid.

The PAB approved that a Fact-Finding Committee be constituted to look into the matters related to complaints on connectivity and provision of LAN by BSNL & MTNL under NMEICT to Universities and Colleges.

#### Agenda-IV C (18)

e-Exam

PI: Prof. R.K. Shevgaonkar, IIT Delhi

The Project is to develop electronic examination system wherein the basic principles in defining the problem and finding its solution, etc. are based on outcome based education, instead of traditional system. The proposal has two components, viz., Paper setting Platform and Creation of e-Exam Question Bank for five courses. A separate platform may not be required to be set up, since this shall be supported under SWAYAM platform. Accordingly, the Project cost after such consideration stands at ₹135.00 lakhs.

PAB did not approve the Project as neither the PI nor any of his team members were present to explain the Project.

#### Agenda-IV C (19)

Campus Connect Provision of Wi-Fi in 350 Universities PI: Prof. Jaspal S. Sandhu, Secretary, UGC

The proposal is to provide Wi-Fi services in 305 Universities at a cost of Rs.40.00 lakhs per university. This Department is working hard for implementation of the decision taken in the Meeting chaired by the Principal Secretary to PM on 17th December, 2014 regarding Digital Initiative in HRD. One of the components of the decision was provision of Wi Fi in Universities.

The PAB took note of it and ratified the release of funds to the UGC for Wi-Fi Campus Connect in Universities.

#### Agenda-IV C (20)

Distributed Digitized Answer Book Evaluation Software for a Computer Aided System.

PI: Dr. P. Sunthar, IIT Bombay

The proposal is to develop a software system, associated answer book design, printing and post-exam booklet handling standards and protocols, making statistics and MIS for an unbiased, secured error free on screen evaluation of digitized answer booklets. After the SC recommendation & Financial Due Diligence a budget of ₹35.40 Lakh is proposed.

The PAB did not approve the proposal "Distributed Digitized Answer Book Evaluation Software for a Computer Aided System" as the PI did not agree for the revised cost recommended after Financial Due Diligence.

#### Agenda-IV C (21)

Award of 'Consulting Work' for ERP Project Completion and Integrated Implementation.

PI: Prof. Y.N. Singh, IIT Kanpur.

The proposal put up by the SC is that the PI has informed that he and his group have completed 9 out of 15 EduERP components of the sanctioned Project. It has been observed that, most of the components of the EduERP Project are working fine but such components are working in silos and are lacking seamless integration of EduERP modules within the Institution as well as across the Institutions.

The SC has recommended awarding the missing work to a consulting agency for preparation of an assessment report after carrying out "Gap Analysis" etc. to be completed in three-month period at a cost of ₹15.00 Lakh.

The PAB approved the proposal to release ₹15.00 Lakh as recommended by the SC.

#### Agenda-IV C (22)

The Village Community Network PI: Dr. K. S. Daya, Dayalbagh Educational Institute, Agra

The proposal put up by the SC is that the PI was assigned to develop low cost network synchronization oscillators for voice data networks to bring down cost of network installation, operation and services dramatically and to rollout technology for ubiquitous connectivity in two remote villages. An amount of ₹3.00 Crore out of ₹6.00 Crore, approved by the PAB has been released. The PI has spent ₹3.22 Crore on the Project. The SC has now appreciated the efforts of the PI; however, it is felt that the Project can no longer be funded under the Mission. The SC has recommended the release of excess amount ₹22.00 Lakh spent by the PI. The UC has been received from PI, which states an excess expenditure of ₹23,05,235/-.

The PAB approved the proposal to release ₹23,05,235/- to the PI subject to Receipt of the Report by the PI and Acceptance of it by the DEC and observed that the DEC should ensure that the Phase-I deliverables of the Project are put to proper use.

#### AGENDA-IV C(b)

Proposals forwarded by Domain Experts Committee, Direct to Home-Operations Management Group.

#### AGENDA-IV C(b) (1)

Projects recommended by the "DTH OMG" are put before PAB for kind consideration & approval

The DTH-OMG vide its 1<sup>st</sup> Meeting held on 4<sup>th</sup> February 2015, recommended a-g Projects as under:-

(₹ in Lakhs)

| Item No | Proposal Regarding                    | Institution  | Amount   |
|---------|---------------------------------------|--------------|----------|
|         |                                       |              | approved |
| (1) a   | Development of Pedagogy & Scheduling  | SNDT Women's | 135.00   |
|         |                                       | University   |          |
| (1) b   | Design & develop Logo's & its animate | IIT BOMBAY   | 25.00    |

| (1) c | Develop & design Template for e-<br>Content development                                 | INFLIBNET                   | 35.00   |
|-------|---|-----------------------------|---------|
| (1) d | Conduct trainings & workshops for Subject Co-ordinators, SME's, TE Co-ordinators etc.   | CEC                         | 1000.00 |
| (1) e | Design and implement Advertisement, promo & Awareness programme                         | INFLIBNET                   | 505.00  |
| (1) f | Strengthening activities, management, office, manpower etc., for running DTH Programme. | IIT Delhi                   | 75.00   |
| (1) g | To study & design a number of Set Top<br>Boxes, for reception of MHRD DTH<br>programme. | Only conduct of<br>Meetings | -NIL-   |

The Chairman, PAB questioned the recommendation of awarding the above mentioned Projects on nomination basis; it was felt by the PAB that there is no justification for awarding these Projects on nomination basis.

#### AGENDA-IV C(b) (2)

Engaging Director, IIT Delhi for Setting up MHRD DTH Earth Station at JNU and seeking Technical Assistance of Prasar Bharti

The DEC DTH-OMG has forwarded a proposal as above, stating that the PAB in its 23<sup>rd</sup> Meeting had approved for obtaining services of M/s TCIL at one-time payment of ₹24.00 Lakh for locating an agency for hiring a Teleport for MHRD 50 DTH Channels. A sum of ₹7.2 Lakh has already been released to TCIL for tendering to hire teleport facilities and the TCIL has also gone ahead with the tender on this.

Meanwhile, the PAB in its 24<sup>th</sup> Meeting has further approved construction of 2000 square meter of space for DTH Teleport by JNU at its Campus at a cost of ₹13.00 Crore for Civil & ₹6.5 Crore for Electric works, AC etc.

The DTH-OMG recently felt that since the PAB has approved a place to install our own Earth Station at JNU, we could plan and launch our own earth station for Up-linking to Satellite, as this option turns out to be cost effective, when compared to hiring a Teleport service. If approved, the DTH-OMG has further recommended a proposal to the PAB for approval that Prasar Bharti of India may be engaged to design a RFP for MHRD Teleport and the IIT Delhi be engaged to set up the Teleport at the JNU. Accordingly, the DTH-OMG recommended that the Director, IIT Delhi be sanctioned a Sum of ₹30.00 Crores on account of establishing Teleport and further funding on this be sanctioned by the PAB to Director, IIT Delhi as and when a detailed proposal is forwarded by the DTH-OMG to the PAB.

The PAB did not approve the above Projects and it was decided that it may be explored whether renting the infrastructure rather than owning it would be better or not as the Mission has no expertise regarding maintaining such infrastructure.

#### AGENDA-IV C(b) (3)

Revised Budget (Recurring + Non-recurring) on DTH Programme and defining the Source of Budget for DTH activities.

The PAB was briefed that the PAB in its 25<sup>th</sup> Meeting approved a budget of ₹572.73 Crore (Non-Recurring ₹197.77 Crore & Recurring ₹374.96 Crore). The MHRD vide letter dated 2<sup>nd</sup> January, 2015 to Director IIT, Madras, has communicated to go ahead & explore the possibility to reduce the cost of TEs. Based on revision exercise, the IIT Madras has submitted tentative revised budget proposal, Non-Recurring budget of ₹244.41 Crore, Recurring budget of ₹103.58 Crore/annum and budget on Content Development etc. ₹102.34 Crore/annum. It was pointed that the Mission document has earmarked ₹401.00 Crore on hardware activities related to satellite dissemination, now being undertaken under the DTH Programme.

The PAB decided that the Detailed Budget Proposal may be put up on file for consideration and scrutiny by the IFD of MHRD before being put up to the Chairperson, PAB who was authorized to take a final decision.

#### Agenda-IV D, Miscellaneous Items

#### **Process for Preparing Agenda Notes for New Proposals.**

The Guidelines/procedures for processing NMEICT Project proposals issued on 12<sup>th</sup> December, 2014, state that the recommendations of the Domain Experts Committee (DEC), be placed before the PAB. This is in view of the fact that since the Members of the DECs are mostly academicians, the insights provided in DECs' recommendations do not cover relevant aspects like the provisions for compliance with GFRs, the cost estimates etc. in the proposals considered by them.

The PAB approved the process that the TEL Bureau should offer its recommendations to the PAB on Agenda Notes on Administrative and Financial issues.

#### Agenda-V: Items for information.

## Request Department of Space for Re-allocation of Satellite Transponders to MHRD for DTH Programme

The PAB was informed that on the request from Chairman, DTH-OMG, the Chairman, PAB approached the Chairman, ISRO & Secretary, DoS on 19<sup>th</sup> February, 2015 requesting him to swap the two Transponders allotted to MHRD (at GSAT-8 Satellite, location at 55° degree East), to a location close to a Satellite presently being used by the Doordarshan (INSAT-4B Satellite, location at 93.5° East). In this way it shall enable viewers of Doordarshan & that of Dish TV, approx. 20 and 15 millions respectively in numbers to watch the proposed 50 Channels of MHRD DTH programmes without having loaded such Channels on their network & uplinking such Channels.

The PAB was further informed that in response to the letter, the Chairman, ISRO and Secretary, DoS has vide his letter dated  $12^{th}$  March, 2015 replied favourably to Secretary, Higher Education that the proposal shall soon be put before the INSAT Coordination Committee.

#### The PAB noted the above.

#### Extension of NPTEL Project till 31st March 2015.

The PAB was briefed that Projects sanctioned under NMEICT were extended by MHRD till 30<sup>th</sup> September, 2014. The Co-ordinator, NPTEL, (a Project assigned to IIT Madras) approached the TEL Bureau informing that they are taking the initiative of MHRD and is interested to launch 11 MOOCs from early 2015. In order to develop the MOOCs & launch them, the NPTEL has some unspent funds and requires extension to continue the NPTEL Project till 31<sup>st</sup> March, 2015. Noting urgency in the matter, the Secretary, Higher Education in his capacity, as Chairman, PAB had on 15<sup>th</sup> December, 2014 extended NPTEL Project till 31<sup>st</sup> March, 2015, without any additional financial burden to MHRD.

The PAB ratified the extension of NPTEL Project till 31st March 2015.

#### TABLE Agenda-VI (2)

Ratification and Approval for Relaxation in Qualification of Ms. Shilpi Tiwari for Temporary Appointment as Consultant under NMEICT.

A note dated 11th March, 2015 was received from the Office of Hon'ble HRM regarding appointment of Ms. Shilpi Tiwari as Consultant under NMEICT to work on website, social media and other communication related activities including but not limited to design and content development for MHRD.

EdCIL India Limited, as TSG for NMEICT, has examined the proposal. Thereafter, the Secretary, Higher Education has approved the appointment of Ms. Shilpi Tiwari. It was proposed that initially she may be appointed for the period of 3 months at a fee of Rs. 35,000/- per month and relaxation in qualifications of Ms. Shilpi Tiwari may be approved.

The PAB ratified the approval accorded by Secretary, Higher Education to appoint Ms. Shilpi Tiwari and relaxation in qualifications prescribed for appointment of Consultants in respect of Ms. Tiwari.

The Members thanked the Chairman, PAB for having spent extended hours on discussion of agenda items and having conducted a fruitful deliberation.

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## (ATTENDANCE SHEET)

# Meeting: XXIX Project Approval Board (PAB) under National Mission on Education through Information and Communication Technology.

Date & Time: 20<sup>th</sup> May, 2014 at 03:00 PM. Venue: Conference Room No. 112-C Wing (First Floor), MHRD, Shastri Bhawan, New Delhi.

| SI.<br>No | Name & Designation   | Address  | Contact Nos.  | Email                       |
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| 14        | Shri Yogendra<br>Tripathi,<br>Joint Secretary &              | MHRD, Shastri<br>Bhawan  |   |                             |

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