

Ministry of Human Resource Development  
Department of Higher Education

**Committee on DTH**

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The DTH Committee, constituted by the MHRD under NME-ICT project and the Co-opt DTH members, held the 7<sup>th</sup> meeting at 11:00 Hrs, on September 26, 2012 at Central Secretariat Library (CSL), Shastri Bhawan, New Delhi.

The following members attended the meeting –

- 1) Prof. S.V. Raghavan, Scientific Secretary, Office of the Principal Scientific Adviser to the Government of India. Chairman, DTH Committee
- 2) Mr. N.K. Sinha, Mission Director, NMEICT & Additional Secretary (TEL), MHRD, New Delhi.
- 3) Prof. Dinesh Singh, Vice Chancellor, University of Delhi, Delhi.
- 4) Prof. Sandeep Sancheti, Director, National Institute of Technology – Delhi.
- 5) Prof. Aparajita Ojha, Director, IIITDMJ, Jabalpur, Madhya Pradesh.
- 6) Dr. Tilak R Ken, Director, Consortium for Educational Communication, Aruna Asaf Ali Marg, New Delhi.
- 7) Dr. Sandeep Chatterjee, Registrar, Jawaharlal Nehru University, New Delhi. (Representative of VC, JNU).
- 8) Dr. Andrew Lynn, Director, Commu., Inform., Services, JNU, New Delhi. (Representative of VC, JNU).
- 9) Prof Avadhesh Kumar Singh, Director, SOTST, IGNOU, New Delhi. (Representative of Vice-Chancellor, IGNOU).
- 10) Mr. Ravi Saksena, Ex. Head (DCTD) SAC/ISRO, Ahmedabad.
- 11) Shri Ravikanth, In-Charge Director, EMPC, IGNOU, Maidan Garhi, New Delhi.
- 12) Mr. Nageshwar Nath, Maintenance Engineer, CEC, New Delhi.
- 13) Mr. Kumar Bharat Bhushan, Jr. Consultant, NME-ICT, MHRD, member Invitee.
- 14) Shri Pradeep Kaul, Sr. Consultant, NMEICT, MHRD, New Delhi, Convener, DTH Committee.

The remaining Committee members, due to their pre occupation, could not attend the meeting.

1. Prof. Raghavan, Chairman DTH Committee welcomed the members for attending 7<sup>th</sup> DTH Committee, especially the newly inducted Heads of the Central Institutions as Co-opt DTH members, for attending the DTH meeting for the first time.
2. Since minutes of the 6<sup>th</sup> DTH meeting were circulated and no comments received from any member, the minutes of the 6<sup>th</sup> DTH Committee were therefore conformed, unanimously.

3. Prof Raghavan, for the benefit of new members, apprised them on the progress that has taken place on the DTH project. The DTH Committee was constituted by the MHRD on December 24, 2010, with an objective to launch 1000 educational DTH channels to deliver content in every subjects and in a number of regional languages; the DTH Committee approached the Department of Space and succeeded in seeking allotment, with effect from February 1, 2012, two Ku Band, 36 MHz transponders, in a newly launched satellite GSAT-8; through the deliberations and availability of limited transponders, the Committee decided to start with 50 DTH Higher education channels; has engaged a PSU (through tendering process) for hiring a satellite teleport and other allied systems for uplinking 50 DTH Higher education channels; has constituted a Technical Expert Committee that consisted of Prasar Bharti and other engineering experts in satellite broadcasting, who in turn have recommended a Request for Proposal (RFP) for engaging a teleport agency through tendering process, to be processed by the PSU; have requested Director, IIT, Madras to help in designing and setting up to 150 Teaching Ends in the country, for generation of live DTH content for 50 Channels, which shall amount to 2-3 hours of content delivery by each institute/teaching End for a channel. Such Teaching End facilities can be shared by all teachers in the country.
4. Members were briefed that the draft Request for Proposal (RFP) for “Hiring Teleport facilities to uplink 50 DTH Channels” was produced by M/s TCIL (the Consultants engaged for the purpose) and it was reviewed by the Technical Expert Committee (TEC), DTH and some suggestions were also offered by the DTH Committee. All such suggestions offered have now been incorporated and the members present in the last TEC meeting have sign-off the recommendations. The DTH Committee therefore approved the draft Request for Proposal for Hiring Teleport facilities to uplink 50 DTH Channels, that was put before the Committee.
5. Prof Raghavan informed the members; that it has been felt, that the best way to run 50 channels with 8 hours of fresh content a day, is to go for live content generation and also use the recorded content available at a number of institutes; therefore it is time to engage the newly joined DTH members and the Heads of the Central Institutions, who’s institute shall act as a Hub and with the help of allied and sister institutions, can be engaged in Hierarchical double Star Network Topology, for generation of live content with the use of Teaching Ends for a number of channels to be decided mutually. The Heads of some of the Central Institutes need to decide whether to generation content for UG or PG courses and the title of subjects to be taken up for running channel(s); choose a Subject Co-ordinator who will look after a particular subject in totality, its syllabus, the subject co-ordinator is required to propose a number of subject experts, who will deliver full content on that subject and the subject co-ordinator shall further monitor the progress on that subject, till it is completely delivered. It shall be the responsibility of the Head of the Central Institutions to ensure the content gets originated for committed number of channels and the content from each of these Teaching Ends shall be delivered through Fiber Optical network (already existing under NMEICT/NKN) to the Central Institutes and then to the Satellite Teleport. Together we shall finalised and decide all aspects of content and network that is required for faithful and timely delivery of 50 DTH channels.

6. The 'Subject Co-ordinators' and subject experts once engaged are to be offered conducive environment to appreciate the need for handling the technology and shall be enabled to create content as per the Syllabus associated with each assigned subject. Judging from the quantum of effort involved, a list of Experts to be engaged for delivery of live content in respective Subject may also be prepared by the respective institutions. However, we shall have to evolve criteria for content certification that can be "locally" practiced by the Central Institutions and monitored centrally by DTH committee from time to time.
7. For generation of content and running of channel(s), the Central Institutes and the Teaching Ends shall be provided recurring and Non-recurring funds by the MHRD on the recommendations of the DTH Committee.
8. Chairman, expressed that in this digital world, the role of a Teacher has expanded, further the content delivery through the DTH, the Teacher shall enjoy virtual entity; in such an environment, teacher is expected that he/she shall prepare lessons, edit them suitably, add graphics, visuals etc and when complete such a delivery can be a fantastic lesson. The Course load needs to be shared and in turn the students shall enjoy the rich learning experience; this methodology shall even support the concept of Mata Universities. At a later date, we also need to address issuance of Certificates/degrees to such students who study through content being received by him/her electronically, across the country.
9. VC, Delhi University (DU) expressed that he is feeling extremely happy in being part of the DTH group and feels the DTH platform shall excitingly change the way education is taking place, at present and it shall immensely benefit the student community. The DU in the past had a little success in e-content development, at the same time the university has a huge faculty base, which is its' strength and it can be harnessed to source the material & develop content. In addition students feedback shall be sought that shall make e-deliverables more effective. He felt that we are lagging in multilingual delivery of the content and we need to address such issues. We need to create an environment, so that peer groups in education get together, through a website or otherwise and convey comments and help the learners.
10. Director, CEC expressed that the Media Centres associated with the CEC are in the business of production and delivery of educational e-deliverables in the country since more than 25 years; as on date, we have one of the largest volume and verity of higher education content numbering about 20 thousand modules, that is amounting to ten thousand hours of content; the CEC since the year 2006 is running an educational channel, which is also available on DTH platform; it has established as on date, 22 Educational Multimedia Centres (EMMRC) across the country; there are more than 500 staff trained in e-content development and are placed at all these Centres. He requested the MHRD that all the 22 Centres and the CEC be provided the NKN/NMEICT fiber optical connectivity, to enable the rich educational content available at these Centres to the society at large. Director, CEC further requested the Chairman, to spare the services

of Mr. Kaul for a day, in making a presentation on DTH, to 22 EMMRC Directors and CEC senior staff, at a mutually convenient date. However, for content generation on DTH and delivery of x-numbers of DTH channels (to be decided), the MHRD needs to provide required infrastructure to CEC & the EMMRCs and the Centres be also allowed to appoint/engage more staff/manpower. Director further expressed that teachers while developing e-content are putting a lot of efforts, therefore the good work done by such teachers need to be recognized by the UGC, AICTE and MHRD and given some weightage at the time of promotions of such teachers, this shall motivate more teachers towards e-content development.

11. Prof. Avadhesh Kumar Singh, representing IGNOU, VC felt that the IGNOU dreams to become real partner in this endeavor as since long the institute has acquired complimentary technology and experience in running a similar system. The IGNOU is ready to offer its services in delivery of a number of DTH channels, with subject domain in UG in Humanities, Social Sciences etc; however it shall further be happy to co-ordinate with other 12 state universities engaged in distance learning and would like to involve them in content delivery for DTH. The MHRD is requested to address IGNOU with a suitable letter on this. The team shall further interact with Directors of IGNOU Schools and Heads of state open universities and for this they would require the help of Mr. Kaul to explain them the system.
12. The members felt that the subject Co-ordinators engaged for each subject by the Heads of Central Institutes and the DTH committee need to re-look into the UGC curriculum, avoid duplications and update the syllabus.
13. Director, IIITDMJ, thanked the Chairperson for having selected the institute to be part of the DTH system and promised full cooperation and support from all IIIT institutes situated in the country. The Director shared her experience in designing and having engaged with five Institutes across the world in delivery of a course. The experience the students had during delivery of these courses and how such initiative motivated the student community, was of great remembrance.
14. Director, NIT, Delhi, expressed happiness that the delivery of content through DTH shall be a good supplement, to over one million students of engineering, in the country, it will further help students since the Engineering institutes are having acute shortage of teachers. The NITs shall make their full contribution in this national endeavor and shall develop the content using Multimedia, Animations etc.
15. The VC, JNU representatives expressed their concern that since the university has agreed to lend space for setting up DTH and NMEICT office, in view this and in order to strengthen the JNU faculty and impart skills to teaching community, the JNU requests MHRD to set up to 10 Teaching Ends at different Schools in JNU and MHRD is further requested to provide Recurring and Non-Recurring financial and technical assistance to JNU for establishing Education Multimedia Centres and few Digital production set up's. On providing these facilities, the JNU in turn shall provide all the educational content

produced from these facilities for DTH and NMEICT activity. It was brought to the notice that the JNU is not engaged in imparting teaching in traditional disciplines; however JNU runs multi disciplinary activities and is willing to share its academic resources with others through DTH programme.

16. Prof. Raghavan further suggested that we have to work hard with Central Institutions, maintain coordination and involve a large number of academicians to be part of this movement and get them involved in generation of content for the DTH. This programme is 'Country Wide Classroom'; any person may select channels from 000 to 999 to access a subject of his/her choice. Certain channels may be reserved for interaction and video conferences. The National Optical Fiber Network (NOFN), is soon going to connect all Gram Panchayats, numbering about 2,50,000, besides reaching each of the Blocks and Districts in the country, with a bandwidth of 100 Mbps. Besides e-health and e-governance, the NOFN shall also cater to e-education by next year. Through this network, we now need to ensure that the e-content being generated under DTH reaches each of the classroom, situated in villages across the country; further the content should also be made available on all Aakash devices, being used by learners, wherever they are situated. However, we should not carry a feeling that by the launch of DTH, we shall solve all problems in education, on the contrary there is going to be lot of learning in this process, for all of us.
17. Mr. N.K. Sinha expressed his concern that for education purpose, soon we are likely to have 40 transponders, each having 36 MHz bandwidth that shall amount to an enormous 1440 MHz in bandwidth; it brings with it, many challenges and issues for us. Should we call the educational DTH services as Education to Learners (ETL)? We need to look into futuristic Set Top Boxes (STB) that may carry seamless switching, dynamic channel allocation, function to create virtual groups of Mentors numbering 30 to 100 and students should be able to interact with such Mentors. The STB may also have reverse channel available, the STB need to work on Wifi also. We need to look into Remote Centre Strategy and create discussion group for synchronous and non synchronous replay of the lectures. We need to create some contents in 3D Animations also. Keep options open for 'satellite spot beam transmission' for effective use of frequencies and transmission energy. We need to have cost effective display mechanism: one video/data projector for every classroom in the country. Create plethora of content, software to identify strength, style and concept of a lecture. The future needs to cater to 'Country wide Classroom' for each individual in the country. It was felt we need to popularize the DTH development with all states in the country and therefore (in a month's time) we may invite and address the silent features and challenges of DTH to all State Education Secretaries, during one day meet in Delhi.
18. The members were informed that the DTH Committee in January, 2012 had suggested the MHRD should immediately identify 'Real Estate' where the DTH of 50 and 1000 channels is likely to be setup, along with NME-ICT Mission Secretariat office. Accordingly, efforts were made and the Education Secretary (HE), MHRD wrote a letter to VC, JNU and subsequently had a meeting with him and requested him to provide

MHRD some space to set up the activities. Meanwhile, AS [TEL], MHRD, and MHRD team visited JNU and in consultation with the JNU Officials, located a building of SCRS / School of Information Technology, which is presently being built in the JNU Campus, as suitable for our activities. The team then requested the JNU to allow the MHRD to acquire the remaining three floors that have total plinth area of about 6000 Square meters, for DTH and NMEICT activities.

19. In view of the progress made on above, the DTH Committee approved a payment of Rs.13.00 Crores to JNU, against the rough estimates provided by the JNU for civil construction, for three floors, each of 2000 square meter of plinth area, the Committee further approved payment of Rs.6.5 Crores for Electrification and AC activities of the building, however it may be paid to JNU at a later date as and when the building is constructed.
20. The Committee also recommended that an MoU may be signed on this, between JNU and MHRD for providing the space for DTH and NMEICT office, for a period of 5+5 years period (after the building is handed over) and the contract may further be renewed on mutual consent basis. The JNU may also be requested to take a leading role in the management of DTH for which the MHRD shall set up to 10 Teaching Ends at different Schools in JNU and MHRD may also provide recurring and Non-Recurring financial and technical assistance to JNU for establishing Education Multimedia Centres and Digital production set up. The JNU in turn shall provide all the educational content produced from these facilities for DTH and NMEICT. However a detailed project shall be mutually prepared by a joint working group of experts on this from JNU and NMEICT.
21. It was felt, since a number of Heads of the Central Institutes could not attend the 7<sup>th</sup> DTH meeting and in order to interact with them, allocate work, subjects and channels, a meeting of such members may be held separately and at the earliest.
22. It was pointed out that the DTH Committee, over the past, has deliberated and offered a number of recommendations, which have direct bearing on content generation, methodology and financial limits. Such recommendations may be compiled by the Convener, DTH and circulated to all Heads of the Central Institutions, for implementation.
23. A summary of '**Action Items**' that the Head of the Central Institute need to take care at their end:
  - a) Propagate to all faculty members at the institute, about the preparedness that is required, by each of them in making the DTH a success.
  - b) Identify the Partner Institutes that shall contribute to the generation of live DTH content.
  - c) Identify the Subjects, the Central Institute and the partner Institute shall deliver.
  - d) The number of DTH channels, the Central Institute and the partner Institute is going to deliver.

- e) The number of Teaching End at Central Institute and the partner Institute, their location (with address) to be set up at such institutes.
  - f) To choose a Subject Co-ordinator who can handle each of the subjects, finalise on the syllabus of the subject and recommend subject experts that can deliver lectures from such Teaching Ends.
  - g) Conduct workshops for Subject Co-ordinators and Subject Experts in delivery of content for the DTH.
  - h) Ensure the subject experts begin writing, at the earliest, their content for DTH in e-way.
24. Action taken report by the members may kindly be submitted to the Convener, DTH, Committee, within two weeks of issuance of the minutes.
25. The meeting ended with vote of thanks to the Chair.

Pradeep Kaul  
Convener, DTH Committee &  
Senior Consultant (Tech.) NME-ICT