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

## <u>Minutes of the third Meeting of the Committee regarding SWAYAM (Study Webs of Active-Learning for Young Aspiring Minds) Platform for MOOCs - Dissemination of courses in e-Learning mode</u>

The meeting of the Committee regarding SWAYAM (Study Webs of Active-Learning for Young Aspiring Minds) Platform for MOOCs - Dissemination of courses in e-Learning mode was held at 4:30 p.m. on 22<sup>nd</sup> June, 2015 under the Chairpersonship of Secretary, Higher Education, in the Conference Room, # 112, C-Wing, Shastri Bhawan, New Delhi.

- 2. The list of members present is enclosed as Annexure-I. A copy of Agenda Addendum to the Report of the Sub-Committee relating to setting up of SWAYAM Platform and the background papers circulated for the meeting are at Annexure II.
- 3. The minutes of the meeting are as under:-
  - (i) Shri S.P. Goyal, Joint Secretary [TEL] welcomed the participants and briefed the members about the progress made by different committees on SWAYAM.
  - (ii) Since no comments have been received on the minutes of the 2<sup>nd</sup> meeting of the Committee held on 5<sup>th</sup> May, 2015 and none of the members has raised any objection, the minutes of the 2<sup>nd</sup> meeting are confirmed.
  - (iii) Prof. S.V. Raghavan, Chairman, Sub-Committee relating to setting up of SWAYAM Platform has submitted the Addendum to the Report of the Sub-Committee which has already been approved by this Committee in its 2<sup>nd</sup> meeting held on 5<sup>th</sup> May, 2015. The members deliberated on the Addendum and approved the recommendations of the Report submitted by the Sub-Committee relating to setting up of SWAYAM Platform.
  - (iv) The recommendations of the Committee were finalized as given in the table below:-

S. No.	Terms of Reference in the Office Order regarding the constitution of the Committee	Recommendations of the Sub-Committee relating to setting up of SWAYAM Platform	Recommendations of the Committee
1	In the initial phases (till May, 2015), should we allow multiple Platforms (that are available in open source) to run MOOCs courses?	Individual Institutions may (optionally) continue with their internal plans until they are ready to change over. The National Platform is ready and will continue to be enhanced in features based on usage.	The Committee took notice that presently IIT Madras, IIT Bombay & IIT Kanpur are delivering MOOCs Courses on different Platforms and recommends continuance of the same till the SWAYAM Platform is ready.
2	Evaluation of the presently available homegrown Platforms, such as edX based by IIT Bombay, MOOKIT by Prof. TV Prabhakar, IIT Kanpur, Course- Builder based by IIT Madras or any	It was unanimously decided that 26 features/ specifications shared by the three ongoing efforts shall form the major technical specifications of the Platform	The Committee agrees with the recommendations of the Sub-Committee and accordingly, recommends that C-DAC while developing the C-DAC Platform should keep these 36 features/

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	other Platform and commissioning of the Platform that best suits our needs.	recommended by the Sub-Committee, SWAYAM.	specifications in mind. Moreover, C-DAC should continue to incorporate all the features suggested by IIT, Bombay, IIT, Madras and IIT, Kanpur progressively.
3	To strengthen "Establishment of Compute Core Cloud" a project under NMEICT by IIT Delhi, capable to run and take load of all MOOCs needs of the country.	The Sub-Committee on SWAYAM Platform for MOOCs has recommended that IIT Delhi be encouraged to continue their research and development related to Data Centre and Cloud Infrastructure, with focus on Open Source, Functionality, and Performance. They can continue to act as 'Technology Advisors' for the e-Sikshak Platform and NKN Data Centre. Both C-DAC and NKN may be engaged for e-Sikshak and Data Centre. They may be asked to give proposal for additional hardware and building teams.  C-DAC will continue to incorporate all the features suggested by IIT, Bombay, IIT, Madras and IIT, Kanpur progressively.	IIT, Delhi shall be the technology advisor for SWAYAM Platform and NKN Data Centres.
4	Evaluation of Platforms to assess whether they can handle a large number of students for launch of MOOCs by HRD Ministry.	The Chairman of the Sub-Committee on SWAYAM Platform for MOOCs explained—that C-DAC is serving the purpose of a "Translational Research" organization that absorbs the "research output" from elite institutions and converts them into "Technological Products and Services" through sustained development and delivery, a function which falls outside the charter of institutions such as IITs. Of course, the outcome of C-DAC's effort is a usable Platform - SWAYAM in	The SWAYAM Platform proposed to be developed by C-DAC shall handle the requirements of MHRD.

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		this case - using which educational institutions all over the country can serve the "stakeholder community" at large.	
5	Feasibility and impact of commissioning a home grown Platform with indicative timelines and its cost.	E-Sikshak (by C-DAC) along with NKN Data Center is the solution to address the national needs. Both organizations are capable, robust, and are known for IT related technology and Services in the public space. MHRD may seek specific proposal from C-DAC and NKN and process them administratively.	It is feasible to have a homegrown Platform. This Platform proposed to be developed by C-DAC. The proposal of C-DAC for the same shall be examined by an Expert Committee under the Chairpersonship of Dr. SV Raghavan.
6	Examination of licensing/IPR issues, incremental IP, patent if any, if an existing open source MOOCs Platform is to be adopted.	No licensing issues are involved. The product called e-Sikshak is already developed by C-DAC, it has been ported to NKN Cloud infrastructure and integrated with NKN ID and authentication system with multi-tenancy capability. The IPR therefore belongs to Government of India.	Development of SWAYAM Platform by C-DAC shall be based on Open Source and C-DAC's development; hence there is no Licensing/IPR issue.
7	Issues relating to copyrights of the content to be hosted on MOOCs Platform if edX/course-builder based Platform is adopted.	India can develop its own policy on hosting. Copyright of content will follow the law of the land or existing practices in MHRD in projects such as NPTEL.	The decision to go ahead with the home-grown Platform by C-DAC eliminates the issue of Copyrights.
8	Strategy to meet testing and scalability issues of the selected MOOCs Platform	<ul> <li>Options for Data Centre:-</li> <li>a) Initially the IIT Delhi cloud in NIC/NKN Centre – up to Beta release.</li> <li>b) C-DAC and NKN Data Centre – at the time of First Production Version Release.</li> <li>c) Expansion in CFTIs as the load increases through replication.</li> <li>d) Overall design, management, and system</li> </ul>	The following strategy for testing & scalability shall be adopted: -  a) Initially the IIT Delhi cloud in NIC/NKN Centre – up to Beta release. b) C-DAC and NKN Data Centre – at the time of First Production Version Release. c) Expansion in CFIs as the load increases through replication.

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		administration by C-DAC and NKN.	d) Overall design, management, and system administration by C-DAC and NKN.
9	Road Map for Operation and Maintenance (O&M) post deployment of MOOCs Platform. Time Line.	Road map for SWAYAM:- a) Scope, Features, and SRS: 2 Months b) Architecture: 3 Months (Cumulative) c) Beta Release: 6 Months (Cumulative) d) First Production Version release: 8 Months (Cumulative)	The following Road Map is proposed:- a) Scope, Features, and SRS: 2 Months b) Architecture: 3 Months (Cumulative) c) Beta Release: 3 Months (Cumulative), within 20th September, 2015 d) First Production Version release: 6 Months (Cumulative), within 20th January, 2016
10	Ensuring data integrity and security concerns of the Platform	Integral to the architecture optionally, C-DAC may be asked to follow the best practices in Information Security, after profiling it to suit MHRD's long term needs.	Main SWAYAM Server and Regional Data Centres shall be part of SWAYAM Cloud infrastructure in India, thereby ensuring data integrity and security of the Platform. Moreover, C-DAC has been asked to follow the best practices in Information Security, after profiling it to suit MHRD's long term needs.

- (v) The report of the costing committee, SWAYAM constituted under the Chairmanship of Prof. Mangal Sunder, IIT Madras was tabled. The members deliberated on the report and approved the recommendations of the Costing Committee. However, the TEL Bureau referred to relevant financial rules as per Para (a) & (b) regarding Honorarium to be paid to experts and a limit to such expenditure. It was therefore decided that the following points regarding honoraria should be adhered to while awarding MOOCs Projects by MHRD:
  - a) Honorarium, if any shall be payable only after completion of the project and acceptance of deliverables by the Government of India, Department of Higher Education, Ministry of Human Resource Development. The honorarium shall be regulated strictly as per rules and regulation in force from time to time which, interalia, include provision of SR 12 and within the prescribed ceilings.
  - b) Further, the honorarium in no case shall exceed 10% of the cost of project and no one individual would get more than 20% of his/her annual salary as Honorarium for the whole year including honorarium received from any other source whatsoever.

(vi) The Members were briefed that as a follow up of the decision taken in the 2<sup>nd</sup> meeting on SWAYAM, TEL Bureau had requested C-DAC to a submit proposal on the development of SWAYAM Platform etc. The Proposal submitted by the C-DAC was tabled and the Members deliberated the Project Proposal submitted by the C-DAC. It was decided that the Project Proposal of C-DAC may be referred to following Expert Committee with the request that its recommendations and suggestion on this Project Proposal be submitted not later than 10 days from the date of the meeting i.e. by 2<sup>nd</sup> July, 2015:-

S. No.	Name/Designation	Institute/Organization/State
(i)	Prof. SV Raghavan	Scientific Secretary, PSA, GOI,
		Chairman
(ii)	Prof. Rajat Moona, DG	C-DAC, Pune, Member
(iii)	Prof. Bhaskar Ramamurthi, Director	IIT, Madras, Member
(iv)	Shri RS Mani, Senior Technical Director	NIC, CGO Complex, Member
(v)	Prof. DB Phatak	IIT, Bombay
(vi)	Prof. Mangala Sunder	IIT, Madras
(vii)	Prof. TV Prabhakar	IIT, Kanpur
(viii)	Shri Pradeep Kaul	Senior Consultant, NMEICT
(ix)	Dr. CS Arora	Senior Consultant, NMEICT

The Expert Committee is requested that while submitting its report, the proposed budget, the deliverables and timelines be fixed rationally to ensure that it is in consonance with recommendation of the Sub-Committee SWAYAM and the expectations of the Ministry.

- 4. The Members observed that MHRD had taken a decision, wherein Institutions were allowed to go ahead and continue launching Online MOOCs courses, using different Platforms. It was reported that the IIT, Madras uses 'Course Builder', the IIT, Bombay uses 'Open EdX Aspen' and the IIT Kanpur uses 'MOOKIT'. The committee observed that since the first version of SWAYAM Platform by C-DAC is going to be available in three months' time, all such Institutions of higher education may be asked to hold on their launch of new and non-launched or non-declared MOOCs, till the time SWAYAM Platform is made available to them and subsequently launch them on SWAYAM itself.
- 5. The meeting ended with vote of thanks to the Chair.

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