

**PROPOSAL FOR
DEVELOPING AND DELIVERY OF
MOOCS on SWAYAM**

Submitted to

**MINISTRY OF HUMAN RESOURCE
DEVELOPMENT**

CONSORTIUM FOR EDUCATIONAL COMMUNICATION
(An Inter University Centre of University Grants Commission on Electronic Media)
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PROJECT BRIEF:

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|---|--|
| Project Title:- | Repurposing of E-content courseware developed in UG courses into MOOCs and developing specialized MOOCs. |
| Name of implementing agency | Consortium for Educational Communication, New Delhi and 21 Media Centers |
| Name of Principal Investigator :- | Prof. Rajbir Singh, Director |
| Co-Principal Investigators :- | -Sh. Nageshwar Nath, Joint Director(H/W) I/c -Dr. Shatrudha, RS and Directors of Twenty One Media Centres |
| Project Team | Ms. Rita Dhar, Producer Ms. Ritu Chawla, CPA Project Manger Academic Coordinator 1- Art/Culture/ Literature/Language Academic Coordinator 2-Social Science Academic Coordinator 3 -Management and other Prof. Courses. Academic Coordinator 4 -Natural & Applied Science, Engineering & Medical Science |
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| Project Category :- | Development and Delivery of MOOCs in Phase – I and Phase – II |
| Proposed Starting Date :- | 1 st March, 2016 |
| Project duration :- | Three Year |
| Proposed Completion Date :- | 1 st December, 2019 |
| Required Funding(in Crores):- PART A – Repurposing and Delivery i. Recurring and Non-recurring Cost ii. Cost required for Phase – I(200 courses) iii. Cost required for Phase – II (400courses) Total Cost For PART A - (Phase – I And Phase – II) PART B – Development and Delivery of new MOOCs (400 courses) | Rs. 14,43,40,000/- Rs. 20,29,00,000/- Rs. 38,44,00,000/- Rs. 73,16,40,000/- Rs. 54,79,00,000/- |
| Total Project Cost (Part A + Part B) | Rs. 1,27,95,40,000/- |

Developing and Delivery of MOOCs

1. Background

Education is a priority area as it is crucial for making the youth of our country competitive and resourceful. Challenges like lack of quality education resources abound. This makes all the more desirable that quality and equality in education must be ensured. The solution seems to lie in technology and specifically ICT and its applications. The reach and access to quality education for all in a country of billion plus can be ensured through technology enabled education modules and courses in the form of MOOCs.

The MHRD has taken the initiative towards this and taken a lead in developing an indigenous platform of learning which would be hosting Indian version of MOOCs. The platform is named as SWAYAM which stands for **S**tudy **W**eb of **A**ctive Learning by **Y**oung and **A**spiring **M**inds and should be ready soon. Consortium for Educational Communication (CEC), New Delhi is one of the core central institutes that are identified by the MHRD for development and delivery of MOOCs.

CEC and its 21 Media Centers are producing e-content in 87 UG subjects. These e-content are developed in UG syllabus framework which is directly benefiting students of undergraduate courses. To benefit the millions of learners and general public it would be appropriate to repurpose these subjects based e-content material into short duration courses (08 to 10 weeks) similar to the course template of MOOCs.

2. MOOCs in Indian Context

In the Indian context, MOOCs are especially relevant because they provide mechanisms to reach a large number of learners at any stage in their education or professional development, make the learning process flexible, open up learner choices and help make workers more employable and productive. By removing many barriers to high quality digital content and expert faculty, MOOCs can also help ameliorate the problems of faculty shortage and lack of proper learning environments and infrastructure. MOOCs can also help traditional institutions scale beyond local and international boundaries.

MOOCs can make way for smooth implementation of Choice Based Credit System (CBCS) in undergraduate courses. Presently most of the MOOCs are conducted by Western Universities who are facing a problem of engaging students from developing countries since there is a lack of cultural translation. The examples, case studies, etc are all from western countries which students from other developing nations find hard to relate. MOOCs will address this problem.

MOOCs will also have subject topics that have not been explored yet, like Classical Indian Music, Indian History, Yoga, etc. They can also be used to provide high quality education to remote parts with subjects that require intensive graphics and visual illustrations.

Aims and Objectives

To improve the Gross Enrolment Ratio (GER) in higher education (Total Enrolment in higher education, expressed as a percentage to the eligible official population of 18-23 years in a given academic year) in India.

To provide quality education with equitable access to learners across India.

To facilitate implementation of Choice Based Credit System (CBCS) by offering quality courses online to count for credits and allowing inter-disciplinary learning.

To enhance skill set of Indian population through Skill Development Courses.

To explore unexplored subject topics in MOOCs relevant to Indian learners like Classical Indian Music, Yoga, Ayurveda, etc.

In exploring these possibilities, we need to include all stakeholders – government, education providers, industry associations / guilds, employers and others – to contribute to areas such as:

- Policy initiatives
- Capability Building
- MOOC creation and delivery
- R&D
- Creation of Industry relevant curricula
- Proctoring and assessment mechanisms
- Credit Transfer System
- Recognition of Prior Learning

Role of CEC in Developing and repurposing the e-content to MOOCs (SWAYAM):

Consortium for Educational Communication (CEC) is an Inter University Centre, established by the University Grants Commission, in 1993, under Section 12 (ccc) of its Act No. 3 of 1956. CEC is registered as a society and enjoys Central University status. CEC is a nodal agency, at national level, to address the educational needs of the country through the use of various modes of communication. CEC and its Media Centres (numbering 21 at present and named as Educational Multimedia Research Centres, EMMRC's) have been working since past 28 years for development of Educational Communication in Higher Education.

3. CEC MOOCs

3.1 Scope:

The scope of the project is to:

1. Repurposing and delivery of the entire e-content developed and content under development as part of CEC project under NMEICT, MHRD into MOOCs format on the SWAYAM platform. This includes repurposing and delivery of all 87 subjects developed/in-development by CEC consisting of about 25,000 Modules/Lectures.
2. Develop digital content repurposing for MOOCs guidelines for the teachers and institutions.

3. ICT Training and development of faculty and subject experts in MOOCs development and delivery.
4. Develop MOOCs cells in all 21 media centers to regularly manage and conduct MOOCs.
5. Develop a central MOOCs cell at CEC for monitoring and management of the regular up-gradation of the Course material basis the suggestions collated while delivery of the course and innovative practices across.

3.2 Proposed Benefits

The key benefits would be:

- Ability to publish existing repurposed e-Content to a large number of students thereby ensuring higher usage.
- Ability to create custom MOOCs from existing content already developed by CEC.
- Improved student and teacher engagement due to greater customizability, personalization and interactivity.
- Analytics on content efficacy and student usage.
- Reliable solution on the cloud accessible across India.
- Increased collaboration between instructors for creation and delivery.

4. COURSE DEVELOPMENT

PART – A Re-purposing of existing e-content courseware into MOOC's

PHASE - I

CEC and Media Centres have developed more than 9,000 MOOCs compliant e-content modules spread over 29 UG subjects under Phase – I, of e-content Development

| S. No. | Subject | Media Centre | Total No. of e-Content Modules as per completion certificates |
|--------|---|--------------|---|
| 1 | History | ECAL | 356 |
| 2 | Botany | ESRI | 280 |
| 3 | Hindi Language | EIND | 147 |
| 4 | Hindi Literature | EIND | 329 |
| 5 | Photography | EIND | 27 |
| 6 | Environment Science | EIND | 75 |
| 7 | English Language | EHYD | 131 |
| 8 | English Literature | EHYD | 399 |
| 9 | Psychology | EHYD | 285 |
| 10 | Anthropology | EIMP | 199 |
| 11 | Maths | ECLT | 378 |
| 12 | B.ed Education | ECLT | 341 |
| 13 | Performing Art | EPAT | 329 |
| 14 | Applied Physical Science (Computer Science) | EPAT | 225 |
| 15 | Mass Communication & Journalism | MCRC | 326 |
| 16 | Sociology | EMKU | 390 |
| 17 | Computer Science | EMAD | 405 |

| | | | |
|----|--|------|-----|
| 18 | Geography | EMYS | 427 |
| 19 | Geology | ESAG | 276 |
| 20 | Microbiology | ECAL | 363 |
| 21 | Zoology | EHAM | 309 |
| 22 | Business Management | EPUN | 316 |
| 23 | Applied Physical Science (Electronics) | EMAD | 377 |
| 24 | Human Rights | EIMP | 198 |
| 25 | Commerce | EJOD | 782 |
| 26 | Chemistry | EROO | 361 |
| 27 | Statistics | EMYS | 269 |
| 28 | Applied Life Science (Sericulture) | EMYS | 356 |
| 29 | Economics | EOSM | 318 |

The above e-content courses are ready for repurposing and uploading on the SWAYAM Platform. CEC would require following for repurposing and running of the course on the platform –

- i. Adequate Space, Equipment and Manpower at CEC (two labs of 25 systems each) and Media Centres (17) – two systems each for creating MOOC's lab.
- ii. Funding for repurposing the content in MOOCs format and running the course on platform
- iii. The domain name for these courses on SWAYAM
- iv. Course creation rights on SWAYAM
- v. Training of Academic Experts and Technical staff of CEC and Media Centres for SWAYAM
- vi. The Partner for Proctored examinations

PHASE – II

CEC and Media Centres are producing MOOCs compliant e-content in 58 UG subjects under Phase – II. These e-content are developed in UG syllabus framework which is directly benefiting students of undergraduate courses. In total CEC shall be developing approx 16,000 modules in 58 UG Subjects by the end of year 2016.

| Sr. No | Subject Allotted | Media Centre's | E-content Module proposed as per subject mapping & agreed by the Centre's |
|--------|--|----------------------------|---|
| 1. | B.A. (Hons) Urdu (1 st Year) | Srinagar | 140 |
| | B.A. (Hons) Urdu (2 nd Year) | EFLU Hyderabad | 100 |
| | B.A. (Hons) Urdu (3 rd Year) | MCRC, Jamia | 100 |
| 2. | B.A. (Hons) Music (Ravindra Sangeet) (The primary language may be Bengali with English subtitle) | Kolkata | 85 |
| 3. | B.A. (Hons) Political Science | Kolkata | 350 |
| 4. | B.A. (Hons) Hindi Journalism | MCRC, Jamia+ EMRC, Lucknow | 300 |

| | | | |
|-----|--|--------------------|--------|
| 5. | B.A. (Hons) Philosophy (3 year) | Calicut | 210 |
| 6. | B.A. (Hons) Business Economics | Ahmedabad | 350 |
| 7. | B.A. (Hons) Sanskrit (1 st and 2 nd Year) (52+110) | Roorkee | 220 |
| | B.A. (Hons) Sanskrit (3 rd & 4 th Year) | Chennai | 200 |
| 8. | B.A. (Hons) Music (Karnataki Sangeet) 3 rd year | Madurai | 210 |
| 9. | B.A. (Hons) Music (Hindustani Classical) | Pune | 332 |
| 10. | B.A. (Hons) Social Work | Osmania, Hyderabad | 300 |
| 11. | B.A. Management & Marketing of Insurance (1 st & 2 nd Year) | Jodhpur | 350 |
| | B.A. Management & Marketing of Insurance (3 rd Year) | Jodhpur | 120 |
| 12. | Foreign Language courses – German, Spanish, French & Russia (at the level of certificate course) 50X4 | EFLU, Hyderabad | 200 |
| 13. | B.A. Fine Arts | MCRC, Jamia | 300 |
| 14. | B.A. in Film Studies | Kolkata | 210 |
| 15. | B. A. Vocational Studies (Advertising papers) | Indore | 34 |
| 16. | B. A. Vocational Studies (Financial Accounting papers) | Indore | 25 |
| 17. | B. A. Vocational Studies (Computer & Networking papers) | Indore | 72 |
| 18. | B.A. Tourism | Mysore | 355 |
| 19. | B. A. Human Resources Management | Pune | 105 |
| 20. | B.A. Social Welfare Administration – 3 rd year | CEC | 60 |
| 21. | B. A. Vocational Studies | Mysore | 355 |
| 22. | B. A. Marketing Management & Retail Business | Jodhpur | 350 |
| 23. | B.A. Office Administration & Secretarial Practice | Pune | 310 |
| 24. | B.A. Public Administration | Hyderabad Osmania | 200 |
| 25. | B.A. LLB (1 st & 2 nd Year) | Srinagar | 300 |
| | B.A. LLB (3 rd , 4 th & 5 th Year) | EFLU Hyderabad | 400 |
| 26. | B. A. Vocational Studies - Mass Communication Video Production | Kolkata | 300 |
| 27. | B. A. Population Studies | Patiala | 270 |
| 28. | B. A. Education | Srinagar | 380 |
| 29. | B A. Criminology – 3 Year | Sagar | 268 |
| 30. | B. Sc. Forensic Science – 3 rd Year | Sagar | 271 |
| 31. | B.Sc. (Hons) Food Technology (1 st Year) | Srinagar | 221 |
| | B.Sc. (Hons) Food Technology (2 nd & 3 rd Year) | Mysore | 183 |
| 32. | B.Sc. Life Sciences (1 st Year) | Ahmadabad | 84 |
| | B.Sc. Life Sciences (2 nd & 3 rd Year) (200+150) | Indore | 220+80 |
| 33. | B.Sc. (Hons) Home Science (1 st , 2 nd , 3 rd & 4 th year) | EFLU Hyderabad | 500 |

| | | | |
|-------------------------|--|--------------------------------------|--------------|
| 34. | B.Sc. (Hons.) Bio-Medical Sciences | Srinagar | 380 |
| 35. | B.Sc. (Hons) Electronics | Jodhpur | 350 |
| 36. | B.Sc. (Gen) Mathematical Science | Chennai | 400 |
| 37. | B.Sc. Agriculture (1 st and 4 th Year) | Jodhpur | 110 |
| | B.Sc. Agriculture (2 nd Year) | Madurai | 250 |
| | B.Sc. Agriculture (3 rd Year) | Imphal | 300 |
| 38. | B.Sc. (Hons) Polymer Science | Chennai | 300 |
| 39. | B.Sc. Physics (Hons.) | Chennai | 250 |
| 40. | B.Sc. Agro-Chemical and Pest Control | Mysore ⁴ | 50 |
| 41. | B. Sc Bio-Informatics | Calicut | 183 |
| 42. | B.Sc. Applied Physical Sciences (Environmental Science) | Chennai | 130 |
| 43. | B.Sc. Applied Physical Sciences (Industrial Chemistry) | Roorkee | 261 |
| 44. | B.Sc. (Hons) Bio-Chemistry – 1 st Yr. | Imphal ⁵ | 120 |
| | B.Sc. (Hons) Bio-Chemistry – 2 nd & 3 rd Yr. | Imphal ⁶ | 175 |
| 45. | B.Sc. Physical Sciences | MCRC Jamia ⁷ | 300 |
| 46. | B. Arch. | Chennai | 400 |
| 47. | B.Ed. (Special Education for Visually Impaired 2 year course) | Madurai | 300 |
| 48. | B.Ed (English) (1 ½ year) | EFLU, Hyderabad | 100 |
| 49. | B.El.Ed. (Elementary Education) (1 st , 2 nd , 3 rd & 4 th) | Madurai | 400 |
| 50. | B.Library and Information Science – 1 year | Calicut | 100 |
| 51. | B.P.Ed. (1 st & 2 nd Year) | Patiala | 150 |
| | B.P.Ed. (3 rd Year)+(4 th year) | Imphal +EMRC, Dibrugarh ⁸ | 250 |
| 52. | B. Pharmacy | Sagar | 524 |
| 53. | BFA Painting Applied Art Sculpture (core paper) | Calicut | 80 |
| 54. | B.A. Multimedia | Calicut | 220 |
| 55. | Bachelor for Theatre Arts | Calicut | 80 |
| 56. | Bachelor of Business Studies | MCRC, Jamia | 300 |
| 57. | Manuscriptology (core papers) | Mysore | 20 |
| 58. | Cyber Security/Information Security | Patiala | 185 |
| TOTAL Phase - II | | | 16088 |

PART B Development and Delivery of New MOOCs from EDUSAT Lectures by addition of MOOCs elements - Plan to deliver EduSat/Webcast live lecture transmission in MOOC's Compliant Format in some new areas specially skill/vocational courses.

CEC has established UGC-CEC nationwide EDUSAT network for regular live transmission of the lectures delivered by the subject experts, which takes place from the CEC/Media Centre studios. Students from different parts of the country can raise questions live through video conferencing and the questions are replied in real time by the experts. The live lectures transmitted on these networks are also available on popular video networking site - Youtube and also on Vyas channel. CEC proposes to adapt its EDUSAT deliveries to the MOOCs format. Currently four slots of one hour each are fixed for the live lecture deliveries in each of the following subject streams:

1. Art / Literature / Language
2. Social Science (including History & Geography)
3. Management & other Professional Courses
4. Natural Science & Applied Science

The schedule is made available to students and viewers through CEC Newsletter e-mailers and CEC website.

The EDUSAT delivered lectures can be republished on the SWAYAM platform with the additional elements required by the MOOCs format. The CEC will ensure orientation and engagement of the subject experts for the conversion of EDUSAT material into the MOOCs format deliveries. This way CEC will be able to generate everyday 4 Hrs course materials for republishing of the SWAYAM platform. Via EDUSAT deliveries CEC will be able to produce 4 MOOCs courses of 20hs video material each for publishing on the SWAYAM platform.

CEC is planning for delivering daily 4 live Lectures from CEC New Delhi and another 4 live Lectures are planned by Media Centre focusing on following areas in MOOCs compliant form in structured skill based/vocational MOOCs courses:

- Fundamentals/Basics of Subjects
- Skill development and vocational course contents
- Lecture Series by eminent scholars/Scientist
- Soft Skills and communication skills/career counseling

Following additional tasks will be performed in CEC for creation of a MOOCs course out of the current EDUSAT deliveries:

1. Additional Production work will include the production of course introduction Video and chunking and editing of the video lecture.
2. Subject experts and teaching assistants will have to provide the additional course elements required for upload on the SWAYAM platform such as - Title, Credits for the course, Course Promo ,About the Instructor(s),Duration, Category/Stream, Pre-requisites knowledge of the student, Course Objectives, Lesson Plan, Industry Partners (if any),Assessment (quizzes, End term exams, Peer assessments etc.)

,Education Material(Course video transcripts, additional text material, case studies, reference material, etc), Engagement Time etc

3. Subject expert will have to commit for the overall delivery of the course on SWAYAM platform.
4. Subject expert or his team of teaching assistants will have to monitor the course online forums and provide answers to the questions posted by the students.
5. Subject expert along with teaching assistants will have to host the Web conferences once a week with the students for direct interactions and to enhance interactivity as is required by the MOOCs format.
6. The Exam conducting, crediting and certification facility has to be ensured by CEC additionally for these courses.

CEC proposes to develop 400 new MOOCs courses over a period of 3 years. Cost for Developing and running new MOOCs would be as per Developing Costing Committee Cost structure for new MOOCs.

5. DESIGN

Currently, each e- content module has the following components (some may be optional based on the subject requirement, e.g. case study is not applicable in a subject like Maths).

- Objectives
- Summary
- Video/Audio (5-7 short clips)
- Text (FAQs, Case Study)
- Assignment (Quiz and Tutorials)
- Reference (Glossary and Links)
- Download [Scripts, FAQs]
- Blog (link)

On re-purposing for MOOCs, each course will have the following features:

5.1 COURSE STRUCTURE

The following elements should be included as the basic structural information points for the basic MOOCs course:

| | |
|-----------------------------------|--|
| Title | The title of the course should be descriptive and appeal to the curiosity of students. It should mention the name of the subject with a descriptive phrase. It should not be longer than 12-15 words. |
| Credits for the course | The credits of the course should be clearly mentioned. If it is a non-credit course, it should be mentioned. |
| Course Promo | A promotional video talking about the course objectives, learning outcomes, brief structure and engagement time should be prepared and put on the course page before the course commencement. The video should not exceed three minutes and should be inviting for students. |
| About the Instructor(s) | A brief biography of Instructors including their career highlights, research areas and Institute affiliations should be mentioned. A photograph should accompany the biography. The introduction should not exceed more than 100 words. |
| Duration | The duration of the course could be anywhere from 4 – 12 weeks based on whether it is credit or non-credit based course. The course duration should be mentioned clearly. |
| Category/Stream | The subject category in which the MOOC falls should be mentioned. If the course is inter-disciplinary, then all the streams should be mentioned. |
| Pre-requisites | The pre-requisites for the course should be mentioned. If available, link(s) to other MOOCs should be inserted here. |
| Course Objectives | The course objectives and learning outcomes should be clearly mentioned in a succinct way. The learning objectives should be written keeping the target audience in mind. |
| Lesson Plan | A topic-wise lesson plan should be created which should include assignments, readings, quizzes, activities and any additional resources. The lesson plan should map the learning objectives. |
| Honor Code | The Academic Honor Code should be spelt out which student has to accept at the time of joining the course. |
| Related Courses | The Related Courses should be mentioned along with the course page links. |
| Industry Partners (if any) | If the MOOC has any Industry partners, they should be mentioned |
| Assessment | The assessment strategy should align with learning outcomes. The assessment strategy should be clearly spelled out here. It should include what kind of assessments (exercises, in-lecture quizzes, post assessment quizzes, etc.) along with their relevant weightage, the students will go through the course. It should also mention if the student will go through a proctored exam in case of Credit-based courses. |

| | |
|---------------------------------------|--|
| Educational Videos | Videos should include in-lecture quizzes or encourage students to pause and deliberate on questions covered in video topics. The duration of the video should range from 6-10 minutes depending on the topic. The instruction on the video should be engaging and encourage students to use additional material in the course. |
| Education Material Development | The educational material should be developed keeping in mind that the material supports active learning and builds foundational knowledge of students. |
| Engagement Time | Engagement time, total time required for viewing of content, attempting quizzes and assignments and reading material from reading list or additional sources, may vary for different courses and may range from 3-10 hours per week depending on the course rigor. Engagement time should be mentioned clearly to set the expectations of students straight. |

Sample Lesson Plan of 6 week MOOC course

| Week | Learning Objectives | Contents | Graded Assessments |
|------|--|--|---|
| 1 | <ul style="list-style-type: none"> To briefly describe ... To explain the ... To write | Module 01 - Course Overview Handouts: <ul style="list-style-type: none"> PPT slides in PDF | Module 01 Graded Problem Tasks Lab 01 - |
| 2 | <ul style="list-style-type: none"> To use .. To utilize ... To explain ... | Module 02 – Handouts: <ul style="list-style-type: none"> PPT slides in PDF | Module 02 Graded Problem Tasks Lab 02 - |
| 3 | <ul style="list-style-type: none"> | Module 03 - ... Handouts: <ul style="list-style-type: none"> PPT slides in PDF | Module 03 Graded Problem Tasks Lab 03 - ... |
| 4 | <ul style="list-style-type: none"> | Module 04 - Handouts: <ul style="list-style-type: none"> PPT slides in PDF | Module 04 Graded Problem Tasks Lab 04 - |
| 5 | <ul style="list-style-type: none"> | Module 05 Handouts: <ul style="list-style-type: none"> PPT slides in PDF | Module 05 Graded Problem Tasks Lab 05 - ... |

| | | | |
|---|---|--|------|
| 6 | <ul style="list-style-type: none"> N/A | Exam Handouts: <ul style="list-style-type: none"> Scope of Exam in PDF | Exam |
|---|---|--|------|

MOOCs development checklist [2]

| Course Announcement and Introduction | |
|--|--------------------------|
| Pre-requisites and learner background for the course are stated | <input type="checkbox"/> |
| Welcome/Introduction Video <i>Optional but recommended.</i> | <input type="checkbox"/> |
| Expected time commitment for learners is stated | <input type="checkbox"/> |
| Instructor introduction or bio-data available on "About" page | <input type="checkbox"/> |
| how to get started with the course is prompted on the Info Page | <input type="checkbox"/> |
| Optional Self-assessment provided that identifies pre-requisites needed to earn a certificate. | <input type="checkbox"/> |
| Course Structure | |
| Syllabus or course calendar provided (course topics and important dates, including exams) | <input type="checkbox"/> |
| Grading criteria and certificate requirements posted in the course | <input type="checkbox"/> |
| Learning objectives, goals, and outcome(s) posted in the course. | <input type="checkbox"/> |
| Instructional Materials and Assessments | |
| Course includes interleaved videos and exercises | <input type="checkbox"/> |
| Course includes gradable assignments, e.g., exercises/homework/quizzes and assigns a grade | <input type="checkbox"/> |
| Assessment deadlines are clearly provided | <input type="checkbox"/> |
| Course provides transcriptions for all videos | <input type="checkbox"/> |
| Video quality and audio levels are as per stated guidelines | <input type="checkbox"/> |
| Course uses pre and post production techniques that enhance instructional content | <input type="checkbox"/> |

| | |
|--|--------------------------|
| Required materials and optional materials are delineated inside the course | <input type="checkbox"/> |
| Each Video chunk duration average between 6 to 10 minutes | <input type="checkbox"/> |
| Course provides an online textbook, online notes, or readings. <i>Optional but recommended.</i> | <input type="checkbox"/> |
| Downloadable copies of presentations materials used in videos provided inside courseware. <i>Optional but recommended.</i> | <input type="checkbox"/> |
| Cross linking between videos, exercises, textbook are provided within the course | <input type="checkbox"/> |
| Course includes interactives such as virtual labs or user controlled animations. <i>Optional but recommended.</i> | <input type="checkbox"/> |
| Course Administration and Learner Engagement | |
| Welcome Email sent to learners | <input type="checkbox"/> |
| Paced emails sent throughout course run | <input type="checkbox"/> |
| Closing email sent at the conclusion of the course | <input type="checkbox"/> |
| Course team provides forum moderation | <input type="checkbox"/> |
| Guidelines provided for the use of forums, forum etiquette | <input type="checkbox"/> |
| Explanation posted of how to get help with learner issues | <input type="checkbox"/> |
| Learners are encouraged to use the discussion forum to introduce themselves <i>Optional but recommended.</i> | <input type="checkbox"/> |
| Learners are surveyed at the beginning, during, and close of course . <i>Optional but recommended.</i> | <input type="checkbox"/> |

5.2 Content Re-purposing Methodology

- a) Existing Flash videos will need to be converted to MP4 formats optimized for Web delivery and HD formats available for download.
- b) Assessments will need to be converted from Flash to portable format like XML/Database.
- c) Transcripts shall need to be broken down per video in the module.
- d) Supporting documents shall need to be assigned to the course at relevant points such as Case Studies or References.
- e) We shall need to define the lesson plan for the course in the platform.

- f) We need to provide exportable formats or guidelines for data extraction from the platform so that it can be reused by other partners.

Additional elements such as simulations or virtual LABs can be integrated based on the actual requirements of the course and audience.

6. DEVELOPMENT

PART A Development of the MOOCs by re-purposing e-content courseware:

- a) CEC would engage the respective media Centres who are developing the subject based e-content. The Academic Experts would be engaged to provide Academic input for repurpose the subject based e-content into short duration courses.
- b) CEC would develop/customise the available e-learning LMS template similar to MOOCs and Coursera.
- c) CEC and Media Centres have very limited number of production staff and mainly engaged in content production. Therefore, it is proposed to create adequate infrastructure for repurposing work.
- d) CEC would create/outsourcing adequate server and storage facilities for hosting and disseminating the content to users.
- e) CEC would operate and maintain the facility for which a core team of ICT professionals shall be engaged at CEC.

Industry professionals shall also be co-opted to ensure that these MOOCs, as applicable, also help build employability in students.

The intellectual Copy Rights (ICR) and Production Copy Rights of the courses shall rest with the CEC / MHRD.

6.1 CEC proposes to re-purpose and deliver following 25 courses within 3 months after sanction and receipt of fund from MHRD

| S. No. | Course Title (Name of the courses) to be taken up in each quarter | Faculty Name and Affiliation of faculty to which Institute | Length of Modules and duration of each course (number of hours) | Number of Teaching Assistants to handle quizzes, assignment and queries of registered students | Partner Media Centre for running the course |
|--------|---|--|---|--|---|
| 1. | Basics of Photography | 1. Col. Kamaljeet Chugh 2. Mr. Lalit Ingle | 30 Hours | 01 | EMMRC Indore |

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|-----|--|--|---|----|--------------------------------|
| 2. | Scriptwriting for Films and Television | 1.Mrs. Subha Das Mollik 2.Mr. Soumya Suvra Das | 30 Hours | 01 | EMMRC Kolkata |
| 3. | Business Economics | Prof. A.G. Moss | 25 Hours | 01 | EMMRC, Osmania Hyderabad |
| 4. | Environmental Economics | Prof. A.G. Moss | 25 Hours | 01 | EMMRC, Osmania Hyderabad |
| 5. | Development Economics | Prof. A.G. Moss | 25 Hours | 01 | EMMRC, Osmania Hyderabad |
| 6. | Macro Economics | Prof. Pratap Reddy | 25 Hours | 01 | EMMRC, Osmania Hyderabad |
| 7. | Micro Economics | Prof. Pratap Reddy | 25 Hours | 01 | EMMRC, Osmania Hyderabad |
| 8. | International Trade | Prof. Pratap Reddy | 25 Hours | 01 | EMMRC, Osmania Hyderabad |
| 9. | Functional English | Dr. Revathi Srinivas EFL University, Hyderabad | 30 minutes is length of each module; 12 to 18hrs is the duration of the course. | 01 | EMMRC, EFLU Hyderabad |
| 10. | Modern British Literature | Prof. M.E. Veda Sharan, EFL University, Hyderabad | 30 minutes is length of each module; 12 to 18hrs is the duration of the course. | 01 | EMMRC, EFLU Hyderabad |
| 11. | Modern Indian Poetry | Ms. T. Hemavathi (Retd.) Lecturer, HCU, Hyderabad | 30 minutes is length of each module; 12 to 18hrs is the duration of the course. | 01 | EMMRC, EFLU Hyderabad |
| 12. | Indian History of Literature | Prof. K. Narayana Chandra | 30 minutes is length of each module; 12 to 18hrs is the duration of the course. | 01 | EMMRC, EFLU Hyderabad |
| 13. | Modern American Literature | Ms. Mridula Das, M.Phil; EFL University, Hyderabad | 30 minutes is length of each module; 12 to 18hrs is the duration of the course. | 01 | EMMRC, EFLU Hyderabad |

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|-----|--|---|---|----|-----------------------|
| 14. | Health Psychology | Prof. Meena Hariharan, School of Health Psychology, HCU, Hyderabad | 30 minutes is length of each module; 12 to 18hrs is the duration of the course. | 01 | EMMRC, EFLU Hyderabad |
| 15. | Understanding Plant Diversity | Prof. Zafar A. Reshi Professor, Department of Botany, University of Kashmir | 21 modules of 30 minutes duration of Video and 3 hours ready material, each. Plus 2 hour of weekly interaction, with the expert | 02 | EMMRC Srinagar |
| 16. | Exploring Genetic Basis of Life | Dr. Manzoor A. Shah, Sr. Asstt. Professor, Department of Botany, University of Kashmir | 21 modules of 30 minutes duration of Video and 3 hours ready material, each. Plus 2 hour of weekly interaction, with the expert | 02 | EMMRC Srinagar |
| 17. | Foundation courses in B.Sc. Anthropology | 1. Dr. S Jibonkumar, Manipur University 2. Dr. P. Binodini P.G Dept. of Anthropology \ D.M College of Science 3. Dr. Th. Rabikanta, P.G. Dept. of Anthropology , D.M College of Science 4. L. Nobinchandra P.G. Dept. of Anthropology , D.M College of Science | 30 Modules (2 hours per modules) 60 Hours | 03 | EMMRC Imphal |
| 18. | Advanced course in B.Sc Anthropology | 1. Dr. S Jibonkumar, Manipur University 2. Dr. P. Binodini P.G Dept. of | 30 Modules (2 hours per modules) 60 Hours | 03 | EMMRC Imphal |

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|-----|--|---|---|----|------------------|
| | | Anthropology \ D.M College of Science 3. Dr. Th. Rabikanta, P.G. Dept. of Anthropology , D.M College of Science 4. L. Nobinchandra P.G. Dept. of Anthropology , D.M College of Science | | | |
| 19. | The Colonial State in India (January – March, 2016) | Prof. Bhaskar Chakarborty, Centenary, Professor of International Relations, University of Calcutta | hour video module and academic supplement = 30 hour | 02 | EMMRC Kolkata |
| 20. | The Making of Modern India (April – June, 2016) | Prof. Bhaskar Chakarborty, Centenary, Professor of International Relations, University of Calcutta | hour video module and academic supplement = 30 hour | 02 | EMMRC Kolkata |
| 21. | Foundation of Mathematical Statistics | K. Aneesh Kumar Asstt. Professor Department of Statistics M. G. College, IRITTY | 14 Modules (of 30 minutes duration) 7 Hours | 03 | EMMRC Calicut |
| 22. | Geometry of Finite Dimensional Vector Spaces | Dr. Bijumon Ramalayathil Department of Statistics M. G. College, IRITTY | 21 Modules (of 30 minutes duration) 10½ Hours | 03 | EMMRC Calicut |
| 23. | Abstract Algebra | Dr. Sudheer Associate Producer Farook College Feroke, Calicut | 22 Modules (of 30 minutes duration) 11 Hours | 03 | EMMRC Calicut |
| 24. | Human Resources Management | Dr. Saylee Gankar | 20 – 25 (12 Hours) | 02 | EMMRC Pune |
| 25. | Finance for Non-finance People | Mr. Jayant Oke Mr. Anil Agashe Mr. Kalidas | 20 – 25 (12 Hours) | 02 | EMMRC Pune |

6.3 CEC and Media Centre would further re-purpose and deliver 125-150 courses within next 6-9 months. The tentative titles of proposed MOOCs are as follows:

| S.No. | Title of Proposed MOOC | Subject | Media Center |
|-------|--|-------------------------------|--------------|
| 1 | HOW TO LEAD MOTIVATED BUSINESS ORGANIZATIONS | Management | EMRC Pune |
| 2 | BUSINESS LAW- BASIC INDIAN SCENARIO | Management | EMRC Pune |
| 3 | MACRO ECONOMICS- STUDY OF STRUCTURE, BEHAVIOR, AND DECISION-MAKING | Management | EMRC Pune |
| 4 | MANAGEMENT ACCOUNTING -LEARN THE LANGUAGE OF MONEY | Management | EMRC Pune |
| 5 | FUNDAMENTALS OF PERSONALITY DEVELOPMENT | Management | EMRC Pune |
| 6 | NUTS AND BOLTS OF RETAIL MANAGEMENT | Management | EMRC Pune |
| 7 | PROJECT MANAGEMENT-HOW TO ENSURE SUCCESS | Management | EMRC Pune |
| 8 | BASICS OF PHOTOGRAPHY/ THE ART OF PHOTOGRAPHY | B.A. Vocational (Photography) | EMRC Indore |
| 9 | HOW TO C- A COURSE IN C PROGRAMMING | B. Sc. Computer Science | EMRC Chennai |
| 10 | POPULAR PROGRAMMING LANGUAGES IN USE- A COURSE IN JAVA | B. Sc. Computer Science | EMRC Chennai |
| 11 | DBMS-A STRUCTURAL WAY OF ORGANIZING DATA | B. Sc. Computer Science | EMRC Chennai |
| 12 | POPULAR PROGRAMMING LANGUAGES IN USE-A COURSE IN C++ | B. Sc. Computer Science | EMRC Chennai |
| 13 | CLOUD COMPUTING-APPLICATION, PLATFORM, INFRASTRUCTURE | B. Sc. Computer Science | EMRC Chennai |
| 14 | MOBILE NETWORKS | B. Sc. Computer Science | EMRC Chennai |
| 15 | PROBABILITY THEORY AND PROBLEMS OF OPTIMIZATION. | B.A. (Hons.) Mathematics | EMRC Calicut |
| 16 | MATHEMATICAL MODELING | B.A. (Hons.) Mathematics | EMRC Calicut |
| 17 | ALGEBRA - THE STUDY OF MATHEMATICAL SYMBOLS AND THE RULES | B.A. (Hons.) Mathematics | EMRC Calicut |

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|----|--|---|----------------|
| 18 | CALCULUS-MATHEMATICAL STUDY OF CHANGE | B.A. (Hons.) Mathematics | EMRC Calicut |
| 19 | VECTOR ANALYSIS AND GEOMETRY | B.A. (Hons.) Mathematics | EMRC Calicut |
| 20 | DIFFERENTIAL EQUATIONS- PHYSICAL QUANTITIES AND THERE RATES OF CHANGE. | B.A. (Hons.) Mathematics | EMRC Calicut |
| 21 | INDIAN CULTURE AND ART | B.A. Performing Arts | EMRC Patiala |
| 22 | INDIAN MYTHOLOGY | B.A. Performing Arts | EMRC Patiala |
| 23 | SCULPTURE, ICONOGRAPHY, PAINTING & THEIR CO-RELATIONSHIP TO DANCE | B.A. Performing Arts | EMRC Patiala |
| 24 | THEORY OF THEATER | B.A. Performing Arts | EMRC Patiala |
| 25 | HEALTH PSYCHOLOGY | B.A. Psychology | Hyderabad EFLU |
| 26 | PSYCHOLOGICAL DISORDERS AND BEHAVIOR | B.A. Psychology | Hyderabad EFLU |
| 27 | BASIC PSYCHOLOGICAL PROCESSES | B.A. Psychology | Hyderabad EFLU |
| 28 | APPLICATION OF PSYCHOLOGY IN EDUCATION, CLINICS, COUNSELING | B.A. Psychology | Hyderabad EFLU |
| 29 | APPLIED ELECTRONICS | B.Sc. Applied Physical Sciences (Electronics) | EMRC Chennai |
| 30 | OPTOELECTRONICS -DEVICES THAT SOURCE, DETECT AND CONTROL LIGHT. | B.Sc. Applied Physical Sciences (Electronics) | EMRC Chennai |
| 31 | EDUCATIONAL RESEARCH | B.Ed. | EMRC Calicut |
| 32 | CURRICULUM AND RESOURCES OF NATURAL SCIENCE | B.Ed. | EMRC Calicut |
| 33 | PEDAGOGIC PRACTICES IN NATURAL SCIENCES | B.Ed. | EMRC Calicut |
| 34 | METHODOLOGY AND PEDAGOGY FOR TEACHING LANGUAGES | B.Ed. | EMRC Calicut |
| 35 | METHODOLOGY AND PEDAGOGY FOR TEACHING PHYSICAL SCIENCE | B.Ed. | EMRC Calicut |
| 36 | ICT (INFORMATION AND COMMUNICATION TECHNOLOGY) IN EDUCATION | B.Ed. | EMRC Calicut |

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| 37 | WRITING FOR MASS MEDIA | B.A. Communication & Journalism | MCRC Jamia |
| 38 | COMPUTER APPLICATION FOR MASS MEDIA | B.A. Communication & Journalism | MCRC Jamia |
| 39 | ADVERTISING AND PUBLIC RELATION/CORPORATE COMMUNICATION | B.A. Communication & Journalism | MCRC Jamia |
| 40 | PHOTOJOURNALISM | B.A. Communication & Journalism | MCRC Jamia |
| 41 | INDIAN WRITINGS IN ENGLISH | B.A. (Hons.) English Literature | Hyderabad EFLU |
| 42 | GRAMMAR AND WRITTEN ENGLISH | B.A. / B.Sc. English Language | Hyderabad EFLU |
| 43 | CLIMATOLOGY & OCEANOGRAPHY | B.A. Geography | EMRC Mysore |
| 44 | AGRICULTURAL GEOGRAPHY | B.A. Geography | EMRC Mysore |
| 45 | INDIAN SOCIAL & CULTURAL ANTHROPOLOGY | B.A. Anthropology | EMRC Imphal |
| 46 | INTRODUCTION TO ANTHROPOLOGY | B.A. Anthropology | EMRC Imphal |
| 47 | PRE-HISTORIC ARCHAEOLOGY | B.A. Anthropology | EMRC Imphal |
| 48 | PHYSICAL ANTHROPOLOGY- A STUDY OF HOMININE ANCESTORS. | B.A. Anthropology | EMRC Imphal |
| 49 | ECOLOGY AND UTILIZATION OF PLANTS | B.Sc . Botany | EMRC Srinagar |
| 50 | ENVIRONMENT, POLLUTION AND SOCIAL ISSUES | B.A. / B.Sc. Environmental Science | EMRC Indore |
| 51 | NATURAL RESOURCES- A PERSPECTIVE | B.A. / B.Sc. Environmental Science | EMRC Indore |
| 52 | ECOSYSTEMS- STRUCTURES AND FUNCTIONS | B.A. / B.Sc. Environmental Science | EMRC Indore |
| 53 | BIODIVERSITY AND ITS CONSERVATION | B.A. / B.Sc. Environmental Science | EMRC Indore |

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|----|---|--|--------------|
| 54 | HUMAN POPULATION AND THE ENVIRONMENT | B.A. / B.Sc. Environmental Science | EMRC Indore |
| 55 | BUSINESS COMMUNICATION | B.Com Commerce | EMRC Jodhpur |
| 56 | BUSINESS MATHEMATICS | B.Com Commerce | EMRC Jodhpur |
| 57 | FUNDAMENTALS OF FINANCIAL ACCOUNTING | B.Com Commerce | EMRC Jodhpur |
| 58 | FUNDAMENTALS OF BUSINESS ECONOMICS | B.Com Commerce | EMRC Jodhpur |
| 59 | INDIAN BUSINESS ENVIRONMENT AND ITS COMPONENTS | B.Com Commerce | EMRC Jodhpur |
| 60 | COMPANY LAW | B.Com Commerce | EMRC Jodhpur |
| 61 | FUNDAMENTALS OF BUSINESS STATISTICS | B.Com Commerce | EMRC Jodhpur |
| 62 | COST ACCOUNTING- A PERSPECTIVE | B.Com Commerce | EMRC Jodhpur |
| 63 | PRINCIPLES OF BUSINESS MANAGEMENT | B.Com Commerce | EMRC Jodhpur |
| 64 | INCOME TAX IN INDIAN SCENARIO | B.Com Commerce | EMRC Jodhpur |
| 65 | FUNDAMENTALS OF ENTREPRENEURSHIP | B.Com Commerce | EMRC Jodhpur |
| 66 | INFORMATION TECHNOLOGY'S APPLICATIONS IN BUSINESS | B.Com Commerce | EMRC Jodhpur |
| 67 | FUNDAMENTALS OF AUDITING | B.Com Commerce | EMRC Jodhpur |
| 68 | INDIRECT TAXES- CUSTOMS AND EXCISE | B.Com Commerce | EMRC Jodhpur |
| 69 | FUNDAMENTALS OF FINANCIAL MANAGEMENT | B.Com Commerce | EMRC Jodhpur |
| 70 | MONEY AND FINANCIAL SYSTEMS | B.Com Commerce | EMRC Jodhpur |
| 71 | FUNDAMENTALS OF MANAGEMENT ACCOUNTING | B.Com Commerce | EMRC Jodhpur |
| 72 | INDIAN SOCIETY-AN INTRODUCTION | B.A. Sociology | EMRC Madurai |
| 73 | SOCIAL RESEARCH METHODOLOGY - AN INTRODUCTION | B.A. Sociology | EMRC Madurai |
| 74 | SOCIOLOGICAL STUDY OF TRIBAL SOCIETY | B.A. Sociology | EMRC Madurai |
| 75 | CRIME AND SOCIETY | B.A. Sociology | EMRC Madurai |
| 76 | PRINCIPLES OF SOCIOLOGY | B.A. Sociology | EMRC Madurai |

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| 77 | FUNDAMENTALS OF POPULATION AND SOCIETY | B.A. Sociology | EMRC Madurai |
| 78 | SOCIOLOGY OF KINSHIP, MARRIAGE AND FAMILY | B.A. Sociology | EMRC Madurai |
| 79 | FUNDAMENTALS OF SOCIAL STATISTICS | B.A. Sociology | EMRC Madurai |
| 80 | FOUNDATIONS OF SOCIAL THOUGHT | B.A. Sociology | EMRC Madurai |
| 81 | INDIAN SOCIETY – ISSUES, PROBLEMS AND REMEDIES | B.A. Sociology | EMRC Madurai |
| 82 | SOCIAL PSYCHOLOGY | B.A. Sociology | EMRC Madurai |
| 83 | SOCIAL WELFARE & SOCIAL LEGISLATION | B.A. Sociology | EMRC Madurai |
| 84 | RURAL URBAN SOCIOLOGY | B.A. Sociology | EMRC Madurai |
| 85 | FUNDAMENTALS OF PROGRAMMING | B.Sc. Applied Physical Sciences (Computer Science) | EMRC Patiala |
| 86 | BASICS OF MECHANICS | B.Sc. Applied Physical Sciences (Computer Science) | EMRC Patiala |
| 87 | BASICS OF COMPUTING | B.Sc. Applied Physical Sciences (Computer Science) | EMRC Patiala |
| 88 | TECHNICAL WRITING AND COMMUNICATION IN ENGLISH | B.Sc. Applied Physical Sciences (Computer Science) | EMRC Patiala |
| 89 | FUNDAMENTALS OF COMPUTER SYSTEM ARCHITECTURE | B.Sc. Applied Physical Sciences (Computer Science) | EMRC Patiala |
| 90 | BASICS OF OPERATING SYSTEMS | B.Sc. Applied Physical Sciences (Computer Science) | EMRC Patiala |
| 91 | FUNDAMENTALS OF ELECTROMAGNETIC THEORY | B.Sc. Applied Physical Sciences (Computer Science) | EMRC Patiala |

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| 92 | FUNDAMENTALS OF COMPUTER NETWORKS | B.Sc. Applied Physical Sciences (Computer Science) | EMRC Patiala |
| 93 | BASICS OF DATABASE MANAGEMENT SYSTEMS | B.Sc. Applied Physical Sciences (Computer Science) | EMRC Patiala |
| 94 | MULTIMEDIA SYSTEMS AND APPLICATIONS | B.Sc. Applied Physical Sciences (Computer Science) | EMRC Patiala |
| 95 | FUNDAMENTALS OF DATA STRUCTURES | B.Sc. Applied Physical Sciences (Computer Science) | EMRC Patiala |
| 96 | FUNDAMENTALS OF THERMODYNAMICS | B.Sc. Applied Physical Sciences (Computer Science) | EMRC Patiala |
| 97 | ANALOG CIRCUITS-AN INTRODUCTION | B.Sc. Applied Physical Sciences (Computer Science) | EMRC Patiala |
| 98 | INTRODUCTION TO GEOGRAPHY | B.A. Geography | EMRC Mysore |
| 99 | BASICS OF GEOMORPHOLOGY TO UNDERSTAND WHY LANDSCAPES LOOK THE WAY THEY DO | B.A. Geography | EMRC Mysore |
| 100 | CLIMATOLOGY & OCEANOGRAPHY | B.A. Geography | EMRC Mysore |
| 101 | FUNDAMENTALS OF ECONOMIC GEOGRAPHY | B.A. Geography | EMRC Mysore |
| 102 | RESOURCES AND ENVIRONMENT - A PERSPECTIVE | B.A. Geography | EMRC Mysore |
| 103 | BIOGEOGRAPHY - GEOGRAPHICAL DISTRIBUTION OF SPECIES IN SPACE AND TIME. | B.A. Geography | EMRC Mysore |
| 104 | BASICS OF POPULATION GEOGRAPHY | B.A. Geography | EMRC Mysore |
| 105 | FUNDAMENTALS OF HUMAN GEOGRAPHY | B.A. Geography | EMRC Mysore |
| 106 | SETTLEMENT GEOGRAPHY | B.A. Geography | EMRC Mysore |
| 107 | GEOGRAPHY OF INDIA | B.A. Geography | EMRC Mysore |

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| 108 | CARTOGRAPHY- ART AND SCIENCE OF MAPPING | B.A. Geography | EMRC Mysore |
| 109 | ADVANCED CARTOGRAPHY AND GIS | B.A. Geography | EMRC Mysore |
| 110 | HUMAN & POLITICAL GEOGRAPHY | B.A. Geography | EMRC Mysore |
| 111 | WORLD REGIONAL GEOGRAPHY | B.A. Geography | EMRC Mysore |
| 112 | REGIONAL GEOGRAPHY OF INDIA | B.A. Geography | EMRC Mysore |
| 113 | AGRICULTURAL GEOGRAPHY | B.A. Geography | EMRC Mysore |
| 114 | APPLICATIONS OF GEOGRAPHY | B.A. Geography | EMRC Mysore |
| 115 | INTRODUCTORY COURSE ON HUMAN RIGHTS | Bachelor of Arts in Human Rights | EMRC Imphal |
| 116 | INTERNATIONAL HUMAN RIGHTS | Bachelor of Arts in Human Rights | EMRC Imphal |
| 117 | HUMAN RIGHTS IN INDIA | Bachelor of Arts in Human Rights | EMRC Imphal |
| 118 | LEGAL ASPECTS OF HUMAN RIGHTS | Bachelor of Arts in Human Rights | EMRC Imphal |
| 119 | RIGHTS OF MINORITIES AND INDIGENOUS PEOPLE | Bachelor of Arts in Human Rights | EMRC Imphal |
| 120 | HUMAN RIGHTS OF WOMEN | Bachelor of Arts in Human Rights | EMRC Imphal |
| 121 | INTERNATIONAL HUMANITARIAN AND REFUGEE LAW | Bachelor of Arts in Human Rights | EMRC Imphal |
| 122 | CRIMINAL JUSTICE SYSTEM AND HUMAN RIGHTS | Bachelor of Arts in Human Rights | EMRC Imphal |
| 123 | HUMAN RIGHTS SITUATION IN NORTH EAST INDIA | Bachelor of Arts in Human Rights | EMRC Imphal |
| 124 | VIRUSES: A GENERAL ACCOUNT, STRUCTURE AND REPRODUCTION | B. Sc. Botany | EMRC Srinager , JK |

7. DELIVERY

These short courses shall be offered to the learners by developing a partnership on a three tier arrangement as below:

- a. The Consortium for Educational Communication (CEC) and Media Centres shall develop, host, maintain and disseminate the courses.
- b. A partner Institution/University may offer these courses to the learners in partnership with the Consortium for Educational Communication.
- c. The courses shall be made available to the learners on free basis. However certification and/or assessment may incur costs and therefore need to be on a chargeable basis.

Using the in-house facility, e-content lectures can be converted and uploaded on a MOOCS platform.

- (i) One resource Person with adequate ICT infrastructure can repurpose 1 e-content module of CEC e-content courseware for MOOCS platform in a day.
- (ii) There would be approximately 25-30 modules in one MOOCS based on One topic.

8. ASSESSMENT

We shall offer assessments by partner institutions and professional testing organizations at multiple locations, as needed. This network of assessment centres will need to be established. Where possible, we will use completely online proctoring and student authentication.

The results of assessment can directly go into a national repository from which students and potential employers can access the skills profile.

9. Credits & Certification

We shall offer learners credits and certification as may be decided by the partner institution and government policy.

10. Analytics

Analytics of students learning experience, content usage, completion ratios and performance on assessments will be collected by the platform. These analytics will shape how teachers evolve the MOOC over time as well as provide a mechanism for suggesting improvements to students themselves.

11. Project Requirements: Manpower, Technical Infrastructure for Multimedia Lab at CEC & 21 Media Centres

11.1 It is projected to create Two Multimedia Lab at CEC with following manpower at each Lab.

- Jr. Multimedia Programmers 20 nos.
- Programmer 2 nos.
- Team Leader 1 no.

11.2 Each media centre (Total 21 Centre) will have 2 dedicated Jr. Multimedia Programmers and 1 Data Entry Operator under MOOCS project.

11.3 Hardware Requirement

Each MOOCs Lab at CEC would require:

| | |
|---|---|
| Desktops | : 20 high end computers, |
| Laptop | : 3 laptops (for Programmers and Team Leader) |
| Configuration for Desktops & Laptop | : Intel i7, 4 GB RAM, 1 TB HDD, Windows 8 |
| Local Server | : 1 +1 |
| Intel Xeon E5 (Hexacore 2.5Ghz),RAM upto 384GB (12 DIMM slots), 20 TB HDD | |

11.4 Teacher Capacity Building

Faculty Training programs will be held via specially design MOOCs for all teachers who are interested on a periodic basis. These programs shall cover:

- a. Generating awareness and understanding of MOOCs
- b. Tools and technologies involved
- c. Guidelines for designing, developing and delivering effective MOOCs
- d. Learning from feedback and learning analytics data to improve the MOOC

The MOOCs can be offered entirely self-paced or blended (with partner institutions offering local support).

11.5 Social Media

A social media team/vendor needs to be set up that will drive awareness and use of the learning platform and MOOCs. This will be a critical ongoing activity.

12. PHASE-wise IMPLEMENTATION METHODOLOGY

PART A

CEC plans to divide the project into 2 phases. Phase 1 (ending in 2016) will see completion of 200 MOOCs and Phase 2 (ending in 2019) will see an additional 400 MOOCs being developed.

Phase 1 – 200 MOOCs

Phase 2 – 400 MOOCs

Total = 600 MOOCs

PART B

Further CEC proposes to develop 400 new MOOCs courses within a period of 3 years under Part B under the EduSat Live Lecture Delivery.

Part B- 400 New MOOCs Courses

13. FINANCIALS

The cost for re-purposing and delivery of MOOCs courses has been worked out based on the MHRD MOOCs Costing Committee report.

Developmental and Re-purposing Cost for 600 courses (Phase – I + Phase – II)

Recurring expenditure required for course co-ordinator, honorarium to academics, Teaching Assistants and Delivery of MOOCs.

PART A: Repurposing of existing e-content courseware into MOOCS

13.1 Cost for Re-purposing the existing e-content:

PHASE – I

| | | | |
|----|---|---|---------------------------|
| a) | No. of courses under Phase – I | - | 200 courses |
| | Cost of repurposing per course | - | Rs. 6.0 Lakhs |
| | Cost for 200 Courses (200x6,00,000) | - | Rs. 12,00,00,000/- |
| b) | Payment to Subject Expert (for 200 course) (@ Rs. 1,00,000/- per course) | - | Rs. 2,00,00,000/- |
| | Subtotal | - | Rs. 14,00,00,000/- |

PHASE – II

| | | | |
|----|---|---|---------------------------|
| a) | No. of courses under Phase – I | - | 400 courses |
| | Cost of repurposing per course | - | Rs. 6.0 Lakhs |
| | Cost for 400 Courses (400x6,00,000) | - | Rs. 24,00,00,000/- |
| b) | Payment to Subject Expert (for 400 course) (@ Rs. 1,00,000/- per course) | - | Rs. 4,00,00,000/- |
| | Subtotal | - | Rs. 28,00,00,000/- |

13.2 Delivery cost:

Payment to Coordinator/Subject Experts for running of course for 3 Months

PHASE – I

| | | | |
|----|---|---|-------------------|
| a) | No. of courses under Phase – I | - | 200 |
| | Payment to Subject Expert (for 200 course) (@ Rs. 1,50,000/- per course) | - | Rs. 3,00,00,000/- |
| b) | TA/Mentor Honorarium per course (500 active registrants, one TA for 3 Months) 5000-10,000 active registrants, 5 TA's (for calculation 2 TA has been taken for 3 Months)- | - | Rs. 60,000/- |
| | Total Honorarium to TA's | - | Rs. 1,20,00,000/- |
| c) | Course Reviewer Honorarium (for 200 course) @ Rs. 15,000/- per course | - | Rs. 30,00,000/- |
| d) | Human Resource support for CEC and Media Centre- (@ Rs. 2,00,000/- per Institute) | - | Rs. 44,00,000/- |
| e) | For 22 Workshops (approx.) (@ Rs. 5 Lakhs per Workshop for Academics) | - | Rs. 1,10,00,000/- |

- f) Training of Technical Staff in Development and Delivery- Rs. 25,00,000/-
(5 Trainings @ Rs. 5,00,000/- per)

Total Delivery Cost for Phase – I (a+b+c+d+e+f) - Rs. 6,29,00,000/-

PHASE – II

- a) No. of courses under Phase –II - 400
Payment to Subject Expert (for 400 course) - Rs. 6,00,00,000/-
(@ Rs. 1,50,000/- per course)

- b) TA/Mentor Honorarium per course
(500 active registrants, one TA for 3 Months)
5000-10,000 active registrants, 5 TA's
(for calculation 2 TA has been) - Rs. 60,000/-
Total Honorarium to TA's - Rs. 2,40,00,000/-

- c) Course Reviewer Honorarium (for 400 course) - Rs. 60,00,000/-
@ Rs. 15,000/- per course

- d) Human Resource support for CEC and Media Centre -Rs. 44,00,000/-
(@ Rs. 2,00,000/- per Institute)

- e) For 20 Workshops (approx.) - Rs. 1,00,00,000/-
(@ Rs. 5 Lakhs per Workshop)

Total Delivery Cost for Phase – II (a+b+c+d+e) - Rs. 10, 44, 00,000/-

Total Re-purposing and Delivery cost for Phase – I = Rs. 20,29,00,000/-

Total Re-purposing and Delivery cost for Phase – II = Rs. 38,44,00,000/-

PART B: New course development based on EduSat Lectures

Development Cost:

- a) No. of new courses - 400
Cost for developing new course - Rs. 9.0 Lakhs
Cost for 400 Courses (400 x 9,00,000) - Rs. 36,00,00,000/-

- b) Payment to Coordinator for preparation(for 400 course)- Rs. 8,00,00,000/-
(@ Rs. 2,00,000/- per course)

Delivery Cost

- a) No. of new courses - 400
Payment to Subject Expert (for 400 course) - Rs. 6,00,00,000/-
(@ Rs. 1,50,000/- per course)

- b) TA/Mentor Honorarium per course
(500 active registrants, one TA for 3 Months)
5000-10,000 active registrants, 5 TA's
(for calculation 2 TA has been taken for 3 Months)- Rs. 60,000/-
Total Honorarium to TA's - Rs.2,40,00,000/-

- c) Course Reviewer Honorarium (for 400 course) - Rs. 60,00,000/-
@ Rs. 15,000/- per course
- d) Human Resource support for CEC and Media Centre- Rs. 44,00,000/-
(@ Rs. 2,00,000/- per Institute)
- e) For 22 Workshops (approx.) - Rs. 1,10,00,000/-
(@ Rs. 5 Lakhs per Workshop for Academics)
- f) Training of Technical Staff in Development and Delivery- Rs. 25,00,000/-
(5 Trainings @ Rs. 5,00,000/- per)

Total Delivery Cost (a+b+c+d+e+f) = Rs. 10,79,00,000/-

Total cost for PART B: Rs. 54,79,00,000/-

13.3 Budget required for technical and operational staff for Development and Delivery of MOOCs at CEC, New Delhi

To meet the expenses of Developing and Operating MOOCs CEC shall make expenditure towards recurring and non-recurring expenditure for creating adequate infrastructure and engage a large number of Academicians, ICT Professionals and Technical Personnel for various activities as under:

This staff shall perform following work:

- Repurpose existing e-content into MOOCs template
- Uploading the courses in given template on DNS Server
- Arrange and facilitate live interactive sessions in coordination's with media centres
- Day to Day operation coordination and maintenance per facilities.
- Facilitating the teachers.

A. Recurring funds requirement:

i. Staff required at CEC – (for One Lab)

1. Project Management Staff

| S.no. | Designation | Nos. | Monthly Salary | Total |
|-------------------------------------|-----------------------|------|----------------|-----------------------|
| 1 | Project Manager | 01 | 80,000 | Rs. 80,000 |
| 2 | Academic Coordinators | 04 | 50,000 | Rs. 2,00,000 |
| 3. | Senior Consultant | 01 | 75,000 | Rs. 75,000 |
| 4. | Junior Consultant | 01 | 50,000 | Rs. 50,000 |
| Total monthly expenditure on salary | | | | Rs. 4,05,000/- |

2. Technical Staff

| S.no. | Designation | Nos. | Monthly Salary | Total |
|-------|---------------------------|------|----------------|--------------|
| 1 | Jr. Multimedia Programmer | 20 | 30,000 | Rs. 6,00,000 |
| 2 | Programmer | 2 | 45,000 | Rs. 90,000 |

| | | | | |
|--|-------------|---|--------|------------------------|
| 3. | Team Leader | 1 | 50,000 | Rs. 50,000 |
| Total expenditure on salary (for One Month) | | | | Rs. 7,40,000/- |
| Total expenditure of one month for 2 Labs = Rs. 7,40,000 x 2 | | | | Rs. 14,80,000/- |

Total (1+2) = Rs. 18,85,000/-

Total for 3 years duration = Rs. 18,85,000/- x 36 months = Rs.6,78,60,000/-

B. Staff required at Media Centres

| S.no. | Designation | Nos. | Monthly Salary | Total |
|-------|---------------------------|------|----------------|--------------|
| 1 | Jr. Multimedia Programmer | 2 | 30,000 | Rs. 60,000/- |
| 2 | Data Entry Operator | 1 | 20,000 | Rs. 20,000/- |

Total expenditure for 21 media centres (for 1 month): Rs. 80,000 x 21= Rs.16,80,000/-

Total for 3 years duration = Rs 16,80,000/- x 36 months = Rs.6,04,80,000/-

**Total Recurring Expenditure on manpower (13.3): (CEC + 21 Media Centres)-
= Rs.12,83,40,000/-**

13.4 Non Recurring funds required for MOOCs facility at CEC and Media Centres

| Equipment for One Multimedia Lab at CEC | | | |
|--|--|--|-------|
| 1 | Laptop | Intel Core i7, 8 GB RAM, 500 GB SSD, Windows8 64 bit | 2 |
| 2 | Desktop | Intel i7, 8 GB RAM, 1 TB HDD, windows8 64 bit | 20 |
| 3 | Camera | HD web CAM | 2 |
| 4 | Installation Testing and Commissioning | | 1 lot |
| 5 | Technical Furniture | | 1 lot |

Total (For Two Labs @ Rs. 40,00,000/- per Lab) = Rs. 80,00,000/-

| C. Multimedia Lab at 21 Media Centres | | | |
|--|---|--|--------|
| 1 | Laptop @ 1 at each centre | Intel Core i7, 8 GB RAM, 500 GB SSD, Windows8 64 bit | 21 |
| 2 | Desktop @ 2 systems at each Centre | Intel i7, 8 GB RAM, 1 TB HDD, windows8 64 bit | 42 |
| 3 | Camera @ 1 at each centre | HD web CAM | 21 |
| 4 | Installation Testing and Commissioning @ 1 at each centre | | 21 lot |
| 5 | Technical Furniture @ 1 at each centre | | 21 lot |

Total = Rs. 80,00,000/-

Total cost for Non-Recurring requirement (13.4)= Rs. 1,60,00,000/-

Total for Recurring and Non-recurring Cost(13.3+13.4) - Rs. 14,43,40,000/-

NOTE:

1. Out of total project cost 10% shall be retained by Consortium for Educational Communication for incurring expenditure towards hiring/purchase of equipment and hiring of manpower and Integration, Coordination, outreach activities.
2. **Payment of consultancy fees/overtime allowance/honorarium:** Project Investigator(PI), Co- Project Investigator(CO-PI), Media Centre and CEC staff associated with the development and Delivery of MOOCs etc., who work on the project, during time other than office hours and on holidays, would be entitled for incentives in form of consultancy fees/overtime allowance/honorarium, etc. The consultancy fees/honorarium may be paid to regular faculty/staff of Media Centre as is being paid to the faculty member of IIT's, IIM's etc on taking similar assignments.
3. The essential functional equipment and furniture as may be required shall be procured from project funds.

14. REQUIREMENT OF SPACE (Building to house the MOOCs Facility)

The CEC was shifted (in mid 1991) to the temporary sheds of the IUAC (Nuclear Science Centre). It was expected that CEC will be shifted to its permanent establishment in a couple of years. UGC has given a written undertaking at the time of registration of CEC (during 1993 as was required under the Society registration Act) that it shall provide land and building in New Delhi for establishment of CEC.

The issue was taken up by the Commission and the Commission had allotted 3 acres of land for the new campus of the UGC, on Nelson Mandela Marg, New Delhi. However, so far the allotted land has not been handed over by the UGC to the CEC till date. The growth of CEC has got choked up in the present premises and there is no scope for any future new activity and expansion.

The proposed MOOCs Facility shall require additional space for creation of new facility and functional space for manpower.

MHRD is requested to help CEC in getting additional space of atleast 16000 sq.ft. preferably in AICTE new building at Nelson Mandela Marg for which CEC has already submitted a formal request to the MHRD.

TOTAL PROJECT COST**Total Cost for PART A**

- | | | | |
|------|---|---|---------------------------|
| i. | Recurring and Non-recurring Cost (13.3+13.4) | - | Rs. 14,43,40,000/- |
| ii. | Cost for Re-purposing and delivery of Phase – I | - | Rs. 20,29,00,000/- |
| iii. | Cost for Re-purposing and delivery of Phase – II | - | Rs. 38,44,00,000/- |

**Total Re-purposing and Delivery of MOOCs – 600 courses
(Recurring, Non-recurring and Cost for Phase – I and Phase – II)
= Rs. 73,16,40,000/-**

Total Cost for PART B

- | | | | |
|----|--|---|---------------------------|
| i. | Development and Delivery of new MOOCs (400 courses) | = | Rs. 54,79,00,000/- |
|----|--|---|---------------------------|

Total Cost for the Project = Rs. 1,27,95,40,000/-