

MODULE AREA FOUR: TECHNOLOGY ENABLED LEARNING

(Revised according to June 2017 Guidelines)

MOOC ONE : ICT in Teaching and Learning (TENTATIVE PROPOSAL)

Preparations for uploading courses on the SWAYAM platform

All the Course Co-coordinators ready with the courses for SWAYAM may prepare the following details for placing on the opening page of the course.

1. INTRODUCTORY VIDEO (by the Coordinator)

Hello viewers, I am Dr.K.James Mathai, working as Associate Professor in the department of Computer Engineering and Application in NITTTR, Bhopal.

The Learning Outcome of this course on 'ICT in Teaching and Learning' is to enable you to use Information Communication Technology (ICT) based tools, open educational econtent repositories and integrate appropriate pedagogy enabled ICT into your Teaching- Learning Process keeping ethical issues in mind. This course is aimed at building capacity of aspiring teachers and in-service teachers like you, for transforming the educational culture and teaching-learning system of Institution. This course will requires 40 hours of learning efforts from learners.

As you know, in this era of Knowledge-based society, technical education has assumed an indisputably significant role. The new developments in information technologies have opened-up fresh prospective in teaching and learning. There is now widespread recognition that the way forward is to make greater use of ICT. These ICT enabled methods helps the teachers to offer quality e-content; both - education in classroom situation and to a large number of population in a structured, flexible, interactive, blended and open way.

In this course you will learn FIVE-important aspects concerning use of ICT in Teaching and Learning. The first and foremost , in this information age you will learn about the emerging trends in education, benefits and change in the role of teachers as etutors in using ICT for Teaching and Learning. And various issues, challenges, education policies, economic and infrastructural aspects of using ICT in formal Teaching and Learning. You will also learn about the use of ICT as classroom technology for information presentation through overhead and LCD projector, Television, electronic board etc. And use of ICT for related administrative tasks of TL process such as record keeping, lesson plan development, information presentation and basic information search on Internet. The second important aspect is the way you will integrate ICT into your learning system. You will identify various learner-centered learning mode such as Individualized, Project type, collaborative, blended and flipped learning, mobile learning, small scale and Large scale learning. The third important aspect is to integrate appropriate pedagogy of ICT into Teaching-Learning Process in various learner-centered learning modes and Identify

various state of art technologies that allows easy access to econtents and etutors. The fourth important aspect is to identify the emerging trends in Learning Management System (LMS) platforms for implementation of Small Private Online Courses (SPOCs) and Massive Open Online Courses (MOOCs) in technology enabled learning. The last but not the least important aspect is to address the ethical Issues- intellectual property rights or copyright handling issues, legal, security and other issues related to ICT enabled teaching and learning.

In this course we would use variety of e-Learning components such as video lectures, presentations, Animations, self-instructional materials such as ebooks, reference materials, research papers etc. You can interact with tutors through discussion forum; raising your doubts and clarifying them. The Assessment is integral part of the course to ensure that learning take place, which could be in the form of Multiple Choice Questions, Fill in the blanks, Short Answer Questions, Long Answer Questions, Quizzes, Assignments and solutions.

We would like to welcome you to register for this course. We look forward to see you in this course. Good Luck

2. TEACHING TEAM

a. **Course Coordinator– photograph, a Brief and Contact Details**

Dr. K.James Mathai is currently working as Associate Professor in National Institute of Technical Teachers Training and Research, Bhopal. He is having 34 years of experience which includes education, training, research, consultancy and computing activities. He has published 37 research papers in refereed National and International level journals, Conferences and seminar in the area of Computer Applications, ICT based Education and Training, Educational Technology etc. He has contributed to leading consultancy projects for producing multimedia instructional materials, producing studio based video lectures of undergraduate programmes for satellite based education of MP BOJ Open University, Bhopal. He has been involved in establishing and Managing Learning Management Systems (LMS), Webcast Studio, developed ICT-Based Blended/Online Programmes for technical teachers and AVIEW based Distance Learning Programmes (DGET, New Delhi); facilitating training to ITI teachers through webcast lectures. He has also produced three Instructional Video Produced on web based training.

Prof. K.James Mathai, is M.Sc., M. Tech Ed., Ph. D. in Technical Education having specialization the area of ICT based Training.



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- b. Course Co-ordinator: Dr. R.K.Kapoor Associate Professor, NITTTR, Shamlia Hills, Bhopal M.P.
- c. Subject Matter Expert:
 - i. Dr.K.James Mathai, Associate Professor, NITTTR, DCEA, Shamlia Hills, Bhopal M.P.
 - ii. Dr.R.K.Kapoor, Associate Professor, DCEA, NITTTR, Bhopal
 - iii. Dr.S.Singh, Professor, DCEA, NITTTR, Bhopal
- d. Teaching Assistants -- To be decided later

3. HOST INSTITUTE

National Institute of Technical Teachers' and Training and Research, Bhopal M.P.

4. COURSE TITLE

ICT IN TEACHING AND LEARNING

(This course will prepare the participants (means teachers or potential teacher) to be a user and a facilitator of Information and Communication Technology in teaching and learning.)

5. OBJECTIVES OF THE COURSE (100 words)

To prepare the participants (means teachers or potential teacher) to:

- Use Information Communication Technology (ICT) based tools, open educational content repositories and integrate appropriate pedagogy enabled ICT into Teaching- Learning Process keeping ethical issues in mind.

6. ELIGIBILITY FOR ENROLLMENT (25 words)

All in-service teachers and potential teacher(s) interested in ICT based teaching and learning of their institute directly and indirectly. Those in-service teachers who want to get overview of technology enabled learning can also register for the course.

7. COURSE PREREQUISITE, INTENDED AUDIENCE AND READING MATERIALS

a. Prerequisite

Teacher(s) working in any discipline from technical institutions or potential teacher(s) having basic knowledge of computer and applications.

b. Intended audience

Potential technical teachers and teachers in technical institutions such as Engineering colleges, Polytechnic colleges, Pharmacy institutions, Architecture institutions and Management institutions.

c. Reading materials (reference)

- i. Chai Ching et.al, 'Advancing Collaborative Learning with ICT', first Edition, Ministry of Education, Singapore, 2011
- ii. Onex David Opati, 'The Use of ICT in Teaching and Learning at Makerere University', University Of Oslo, 2013

- iii. 'Faculty Guide to – Teaching and Learning with Technology', University of Missouri, Columbia MP, August 2011
- iv. 'Guidelines for Development and Implementation of MOOCs', Ministry of Human Resource Development Department of Higher Education, GOI, Delhi
- v. K.J.Mathai, 'Develop a Computer Supported Collaborative Learning Environment through an internet based online learning programme for Technical Teachers' Training, Barkatullah University, Bhopal, July 2006- PhD Thesis
- vi. K.J.Mathai, 'Impact of Distance Learning Program through Live Webcast Lecture for Industrial Training Institute's Faculty in India, international conference on Education and Information Systems, Technologies And Applications-EISTA:2016, 05-08th July 2016, Florida, USA
- vii. James K Mathai, et al., 'Design and Evaluate Web based Courseware in Collaborative Learning Environment', World Congress on Education (WCE-2013), London U.K.2-4 Sept.,2013
- viii. R.K.Dixit, V.K.Agrawal, D.S.Karaulia, S.Agrawal, Mathai K.James, 'Training of Polytechnic Teachers through Blended Technologies: A-VIEW and MOODLE Web Based Technologies in the Western Zone of India', Sixth Conference of Learning International Networks Consortium(LINC), Massachusetts Institute of Technology, Cambridge, MA 02139 USA, 16-19 June 2013.
- ix. Mathai K.James, 'Computer-Supported Collaborative Learning For Adult Education- An Instructional Design Perspective ', Indian Journal of distance Education, Vol.17, Number 1 January 2008, Indira Gandhi National Open University, Maidan Garhi, New Delhi, INDIA
- x. Mathai K.James, 'Dichotomy in online Curriculum Development Approaches- Contemporary online Learning vis-a-vis Computer Supported Collaborative Learning', The Journal of Engineering Education, Special Issue on Current Scenario, Emerging Challenges and future Trends, Vol XIX No. 3 and 4, January 2006, Pune, INDIA
- xi. Mathai K.James, Karaulia D.S., 'Re-Engineering Adult Education Programme-An Online Learning Curricular Perspective', Journal of Korea Multimedia Society, Korea Multimedia Society, Vol,6, No.4, July 2003, Korea.
- xii. Mathai K.James, 'Taxonomy of Problem Solving Learning', Staff and Educational Development International, Network for staff and educational development (NetSED), Vol.6 No.3, Dec2002, Indira Gandhi National Open University, Maidan Garhi, N.Delhi, INDIA
- xiii. Copyright Handbook, INDIAN COPYRIGHT LAW, Government of India, MHRD, Department of Secondary Education and Higher Education, GOI, Delhi, <http://copyright.gov.in/Documents/handbook.html>
- xiv. Chaubey O.N, Murthy T A V, 'Protecting Digital Intellectual Property: An Indian Scenario', Publisher-Inflibnet Centre, <http://ir.inflibnet.ac.in/handle/1944/43> Feb, 2002
- xv. IT Act 2000, The Gazette of India, Part-II, Registered No. DL-33004/2000, Ministry Of Law, Justice And Company Affairs (Legislative Department) New Delhi, the 9th June, 2000/Jyaistha 19, 1922 (Saka)
- xvi. Sakshat leverage Power of ICT in Higher Education- <http://www.sakshat.ac.in/>

8. LEARNING OUTCOMES

The participants (means teachers or potential teacher) will be able to:

- i. Elucidate emerging trends, benefits and change in the role of Teacher/e-tutors in using ICT for Teaching and Learning.
- ii. Appraise various issues, challenges, educational policies, economic aspects and infrastructural aspects of using Information and communication Technology (ICT) in formal teaching and learning.
- iii. Use ICTs as classroom technology/tools for information presentation (through overhead and LCD projectors, television, electronic smart boards etc.)
- iv. Use ICTs for related administrative tasks of teaching and learning process (record keeping, lesson plan development, information presentation, basic information search on the Internet)
- v. Identify various learner-centered learning modes of technology enabled learning (Individualized, Project type, group/community based learning, blended and flipped learning, mobile learning, small scale and Large scale learning)
- vi. Integrate appropriate pedagogy of ICT into Teaching-Learning Process (emerging instructional strategies- Individualized, Project type, collaborative/group/community based learning, blended and flipped learning, mobile learning, small scale and Large scale learning)
- vii. Explain various state of art technologies that allows easy access (econtent/multimedia files), peer/teacher interactions and collaboration, monitoring, modes of delivery of econtent through LMS, webcast lectures and certification of an online course.
- viii. Identify the emerging trends in Learning Management System (LMS) platforms for Small Private Online Courses (SPOCs) and Massive Open Online Courses (MOOCs) in technology enabled learning.
- ix. Address the ethical- intellectual property rights /copyright handling, legal, security and other issues related to ICT enabled teaching and learning.

9. COURSE ANNOUNCEMENT DATE

10. STUDENT ENROLLMENT

- a) Start date : 6th August 2018
- b) Closure date: 31st August 2018

11. LIST OF MODULES IN A TABLE FORMAT

A. Video lectures, Activities and Assessments

Content	Time	Activities	Assessment
Week-1			
Learning Outcomes:			
i. Elucidate emerging trends, benefits and change in the role of Teacher/e-tutors in using ICT for Teaching			

Content	Time	Activities	Assessment
<p>and Learning.</p> <p>ii. Appraise various issues, challenges, educational policies, economic aspects and infrastructural aspects of using Information and communication Technology (ICT) in formal teaching and learning.</p> <p>iii. Use ICTs as classroom technology/tools for information presentation (through overhead and LCD projectors, television, electronic smart boards etc.)</p> <p>iv. Use ICTs for related administrative tasks of teaching and learning process (record keeping, lesson plan development, information presentation, basic information search on the Internet)</p>			
<p>a) MODULE-1: Education in Information Age</p> <p>i. Welcome and start here- Introduction to Module-1 content, micro-videos, activities and assessment</p>	<p>Total 8-Video Lectures of 30Min.</p> <p>1-Video of 2-3 minutes (appx.)</p>	<p>Discussion forum – Topics</p> <p>i). Emerging trends, benefits and change in the role of Teacher/e-tutors in using ICT for Teaching and Learning.</p> <p>ii). Identify the major Issues and Challenges of using ICT for Education and Learning in the technical institutions.</p> <p>iii). Use of ICT as Classroom Technology and for Administrative Task related to teaching and learning.</p>	<p>a) At least one MCQ after presentation on a specific theme of 30 minutes duration.</p>
<p><u>Title- Emerging Trends of ICT in Teaching and Learning</u></p> <p>ii. Emerging Trends in using ICT in Education</p> <p>iii. Identify the benefits of ICT based learning in any organization</p> <p>iv. Identify the change in the role of Teacher/ e-tutors in technology enable learning</p> <p>v. Empowerment of Learner for use of ICT in learning and teaching</p>	<p>2-Videos of 5-6 minutes each (appx.)</p>		
<p><u>Title- Road map towards ICT in Teaching and Learning</u></p> <p>vi. Issues and Challenges of Information and Communication Technology (ICT) in teaching and learning.</p> <p>vii. Road Map towards Learning individual and organization</p> <p>viii. Educational Policies (UGC/AICTE) in using ICT in formal Education</p>	<p>2-Videos of 5-6 minutes each (appx.)</p>		
<p><u>Title- ICT as Classroom Technology & Administrative Tool</u></p> <p>ix. Use of ICT as classroom</p>	<p>2-Videos of 5-6 minutes</p>	<p>● Reading Material</p>	<p>-90 minutes</p>

Content	Time	Activities	Assessment
<p>technology/tool for information presentation (through overhead and LCD projectors, television, electronic smart boards etc.)</p> <p>x. Use ICTs for administrative tasks in teaching and learning process (record keeping, lesson plan development, information presentation, basic information searches on the Internet etc).</p> <p>xi. Economic Aspects and infrastructure requirement for ICT based Teaching and learning</p> <p>xii. Psychological Principles of ICT enabled learning</p>	each (appx.)	<ul style="list-style-type: none"> Self-check questions (MCQ) - 30 minutes Discussions - 90 minutes <p>TOTAL- 4 hours</p>	
xiii. Summary of Module-1 and brief about Module-2	1-Video of 2-3min. (appx)		
Week-1 and 2			
Learning Outcomes:			
i. Identify various learner-centered learning modes of technology enabled learning (Individualized, Project type, group/community based learning, blended and flipped learning, mobile learning, small scale and Large scale learning)			
<p>b) MODULE-2: ICT Integration into Learning System</p> <p>i. Review of Module-1 and Introduction to Module-2</p>	<p>Total 7-Video Lectures of 30Min.</p> <p>1-Video of 2-3 min. (appx.)</p>	<p>Discussion forum – Topics</p> <p>i) Philosophy of various learner-centered learning modes of technology enabled learning.</p> <p>ii) Develop a report on ‘Effective use various learner-centered learning modes of technology</p>	<p>a) At least one MCQ after presentation on a specific them of 30Min</p> <p>b) Submission Assignment Assessment of submission by the</p>
<p><u>Title- Modes of Technology Enabled Learning</u></p> <p>ii. Explain various learning modes of technology enabled learning.</p>	1-Video of 5-6min. (appx.)		

Content	Time	Activities	Assessment
<p><u>Title- Philosophy of Technology Enabled Learning</u></p> <p>iii. Philosophy of various learner-centered learning modes of technology enabled learning- Individualized, Project type, collaborative /group/ community based learning, blended and flipped learning, mobile learning, small scale and Large scale learning.</p>	<p>4-Videos of 5-6min. each(appx.)</p>	<p>enabled learning' on the following criteria.</p> <p>a) Course Plan b) Content area c) learning mode and available resources d) Learning Activities e) Assessment</p> <p>• Reading Material - 60 minutes</p>	<p>participants</p>
<p>iv. Summary of Module-2 and brief about Module-3</p>	<p>1-Video of 2-3minutes (apprx.)</p>	<p>• Self-check questions (MCQ) - 30 minutes</p> <p>• Discussion - 60 minutes</p> <p>• Assignments -30 minutes</p> <p>• Assessment and feedback- 30 minutes</p> <p>TOTAL- 4 hours</p>	
Week 2 and 3			
<p>Learning Outcomes:</p> <p>i. Integrate appropriate pedagogy of ICT into Teaching-Learning Process (emerging instructional strategies- Individualized, Project type, collaborative/group/community based learning, blended and flipped learning, mobile learning, small scale and Large scale learning)</p> <p>ii. Explain various state of art technologies that allows easy access (econtent/multimedia files), peer/teacher interactions and collaboration, monitoring, modes of delivery of econtent through LMS, webcast lectures and certification of an online course.</p>			
<p>c) MODULE-3: Appropriate pedagogical integration of ICT into Teaching-Learning Process</p> <p>i. Review of Module-2 and Introduction to Module-3</p>	<p><u>Total 12-Video Lectures of 60Min.</u></p> <p>1-Video of 3-5 min. (apprx.)</p>	<p>Discussion forum – Topics</p> <p>i) ICT enable pedagogy of various learning modes</p> <p>ii) Elaborate and submit a detailed assignment on pedagogy of ICT in teaching and learning.</p>	<p>c) At least one MCQ on pedagogy of ICT enabled teaching and learning</p> <p>d) Submission Assessment- Assessment of submission by the participants</p>
<p><u>Title: Appropriate pedagogical integration of ICT in Teaching and Learning</u></p> <p>ii. Techniques, econtent and tools/ technologies for various learning</p>	<p>4-Videos of 5-6min. (appx.)</p>	<p>• Reading Material - 90 minutes</p> <p>• Self-check questions- 30 min.</p>	

Content	Time	Activities	Assessment
<p>modes,</p> <p>iii. Pedagogical integration of ICT into Teaching-Learning Process (emerging instructional strategies- Individualized, Project type, group/ community based learning, blended and flipped learning, mobile learning, small scale and Large scale learning)</p>		<ul style="list-style-type: none"> • Discussion - 30 minutes • Submission Assessment and feedback - 60 minutes <p>TOTAL- 4 and half hours</p>	
<p><u>Title- Software Tools for elearning</u></p> <p>iv. Use of software tools to access various multimedia files during elearning.</p>	4-Videos of 5-6min. (appx.)		
<p><u>Title- State of art technologies for Instruction</u></p> <p>v. Use of new forms of ICT technologies for easy access, peer/teacher interactions and collaboration, monitoring, self-assessment, modes of delivery of econtent through LMS and webcast lectures and certification of an online course.</p>	2-Videos of 5-6min. (appx.)		
<p>vi. Summary of Module-3 and brief about Module-4</p>	1-Video of 3-5 min. (appx.)		
Week 3 and 4			
Learning Outcome:			
i. Identify the emerging trends in Learning Management System (LMS) platforms for Small Private Online Courses (SPOCs) and Massive Open Online Courses (MOOCs) in technology enabled learning.			
<p>d) MODULE-4: ICT Implementation for online learning</p> <p>i. Review of Module-3 and Introduction to Module-4</p>	<p><u>Total 10-Videos Lectures of 50Min.</u></p> <p>1-Video of 3-5 min. (appx.)</p>	<p>Discussion forum –Topics</p> <p>a) Current status of Technology Enabled Learning in the technical institutions.</p> <p>b) Analyze a state of art LMS for SPOCs/MOOCs based on following criteria.</p> <p>Criteria</p>	<p>Multiple Choice Questions (MSQ) on report Output of activity</p>

Content	Time	Activities	Assessment
<p><u>Title- Emerging trends in Content delivery and management using ICT</u></p> <p>ii. Emerging trends in Learning Management System (LMS) platforms for Small Private Online Courses (SPOCs) and Massive Open Online Courses (MOOCs) in Technology Enabled Learning. (Focus on content Delivery and management of ICT)</p>	<p>4-Videos of 5-6min. (appx.)</p>	<p>i. Institute Goal where employed</p> <p>ii. Potential LMS for SPOCs/ MOOCs</p> <p>iii. Implementation Strategy including infrastructure</p> <p>iv. Evaluation</p> <p><u>Submission Question</u></p> <p>c) Study the eContents available on Internet in the light of information given in the video/presentation and prepare assignment on use of econtent in your Institute on the following points:</p> <p>i. Type of eContent</p> <p>ii. Purpose of eContent</p> <p>iii. Discipline and Course in your Curriculum where it can be used.</p> <p>iv. Implementation Strategy in your class</p> <p>Actions Plan of overall use of various eContents available, along with your classroom teaching in your Institute.</p> <ul style="list-style-type: none"> • Reading Material - 60 min. • Self-check questions - 30 min. • Discussion - 60 min. • Assessment and feedback - 70 minutes <p>TOTAL- 4 and half hours</p>	
<p><u>Title- Open Educational Repositories</u></p> <p>iii. Explore and use of various open educational resources repositories for classroom and online teaching and learning.</p>	<p>4-Videos of 5-6min. (appx.)</p>		
<p>iv. Summary of Module-4 and brief about Module-5</p>	<p>1-Video of 3-5 min. (appx.)</p>		
Week 4			
Learning Outcome:			
<p>i. Address the ethical- intellectual property rights /copyright handling, legal, security and other issues related to ICT enabled teaching and learning.</p>			
<p>MODULE-5: Ethical- Legal, Security and other Issues in Using ICT</p>	<p><u>Total 6-Videos Lectures of 30Min.</u></p>	<p>Discussion forum –Topics</p> <p>a) Managing Ethical- Legal, Security and other Issues in the institutions.</p>	<ul style="list-style-type: none"> • Test • Assessment though MCQ

Content	Time	Activities	Assessment
i. Review of Module-4 and Introduction to Module-5	1-Video of 3-5 min. (appx.)	b) Prepare a brief report on present practices of ethical, legal, security and other Issues related to use of ICT in teaching and learning. <ul style="list-style-type: none"> • Reading Material - 60 minutes • Discussion - 30 minutes • Overall Test and feedback - 60 TOTAL- 3hours	
<u>Title- Ethical Issues in ICT enabled learning</u> ii. Address the ethical-intellectual property rights /copyright handling, legal, security and other issues related to ICT for teaching and learning.	2-Videos of 5-6min. (appx.)		
<u>Title- Creative Commons Licensing</u> iii. Classify and differentiate various creative commons licensing for using <i>creative</i> works available for others to build upon legally and to share use, repurposing, and remixing	2-Videos of 5-6min. (appx.)		
iv. Summary of Module-5 and overall course summary	1-Video of 3-5 min. (appx.)		

B. Reading Material

Reading material	Author	Type of publication (article/notes)	Content Abstract	Number of pages
Core Reading Material				
I Education in Information Age	Subject Matter Expert	Text Material	Emerging trends in ICT in Teaching and Learning, benefits, change in role of etutor, Issues, challenges, educational polices, economics aspects, classroom technology, administrative tasks	
II ICT Integration into Learning Systems	Subject Matter Expert	Text Material	Various learner-centered learning modes of technology enabled learning (Individualized, Project type, group/community based learning, blended and flipped learning, mobile learning, small scale	

Reading material	Author	Type of publication (article/notes)	Content Abstract	Number of pages
			and Large scale learning)	
III Appropriate pedagogical integration of ICT into Teaching-Learning Process	Subject Matter Expert	Text Material	Integrate appropriate pedagogy of ICT into Teaching-Learning Process	
IV ICT Implementation for online learning	Subject Matter Expert	Text Material	ICT Implementation for online learning	
V Ethical- Legal, Security and other Issues in Using ICT	Subject Matter Expert	Text Material	Ethical- intellectual property rights /copyright handling, legal, security and other issues related to ICT enabled teaching and learning	

C. Self-assessment

Type of assessment (MCQ, MSQ, fill in blanks, single type answers)	Topic covered	Date for the assessment	Marks
MCQ, MSQ, fill in blanks, single type answers	I Education in Information Age II ICT Integration into Learning Systems III Appropriate pedagogical integration of ICT into Teaching-Learning Process IV ICT Implementation for online learning V Ethical- Legal, Security and other Issues in Using ICT		

12. NAMES OF REVIEWER(S)

Dr. Rajesh P. Khambayat, Professor and Head, Dept. of Education and Research, NITTTR, Bhopal, Shamlu Hills, Bhopal -462002, M.P.

13. ANNOUNCEMENT OF GRADING SCHEME (Allocation Of Marks To Various Assessments)

- a) Assignments
- b) Course work
- c) Final exam.

14. SCHEDULING OF THE COURSE

- a. Start date: 6th August 2018
- b. End date: 31st August 2018
- c. Weekly lesson plan

d. Date of the final exam.

15. DISCUSSION FORUM ID (group ID is to be created for all the students registered)

Topic for discussion:

- i) Emerging trends, benefits and change in the role of Teacher/e-tutors in using ICT for Teaching and Learning.
- ii) Identify the major Issues and Challenges of using ICT for Education and Learning in the technical institutions.
- iii) Use of ICT as Classroom Technology and for Administrative Task related to teaching and learning.
- iv) Philosophy of various learner-centered learning modes of technology enabled learning.
- v) Develop a report on 'Effective use various learner-centered learning modes of technology enabled learning' on the following criteria.
 - a. Course Plan
 - b. Content area
 - c. learning mode and available resources
 - d. Learning Activities
 - e. Assessment
- vi) ICT enable pedagogy of various learning modes.
- vii) Elaborate and submit a detailed assignment on pedagogy of ICT in teaching and learning.
- viii) Current status of Technology Enabled Learning in the technical institutions.
- ix) Analyze a state of art LMS for SPOCs/MOOCs based on following criteria.

Criteria

 - a. Institute Goal where employed
 - b. Potential LMS for SPOCs/ MOOCs
 - c. Implementation Strategy including infrastructure
 - d. Evaluation
- ix) Managing Ethical- Legal, Security and other Issues in the institutions.
- x) Prepare a brief report on present practices of ethical, legal, security and other Issues related to use of ICT in teaching and learning.

16. A WELCOME MESSAGE (to be sent by email) **TO THE STUDENT IMMEDIATELY ON ENROLMENT.**

You are welcome to course on ICT for Teaching and Learning. You have successfully registered for the course. Before the course starts you can get familiarized with peers of this course on discussion forum. You can flash questions related to use of ICT in Teaching and learning to co-participants for discussion.

17. CREDITS

02 Credits (20 hours):04 weeks, 01 hour per Day, 05 days a Week
