

*Certificate Course*  
*in*  
**ICT Tools for Technology  
Enabled Learning**



**Educational Television Centre**  
**National Institute of**  
**Technical Teachers' Training and Research**  
**Sector 26, Chandigarh-160019**

Programme Name: Certificate Course in  
ICT Tools for Technology Enabled Learning

Genesis: ICT tools are becoming the integral part of the teaching learning process. In order to help the faculty members of various institutions to acquire a skill certificate on the use of ICT Tools for Technology Enabled Learning, National Institute of Technical Teachers Training and Research (NITTTR), Chandigarh has designed a certificate course keeping the requirement of Ministry of Human Resource Development, Govt. of India on priority. The certificate course is designed as a flexi-mode course allowing the faculty members to learn at their own time, own pace and own place in ICT mode using the self-learning video instructional materials prepared exclusively for the said purpose.

Course Designed and Prepared by:

Prof.M.P.Poonia,

Director

Prof.P.K.Tulsi,

Professor and Head, Education and Educational Management

Prof.S.S.Pattnaik,

Professor and Head, Educational Television

Prof.S.Dutt,

Professor In-Charge Academic Cell

Prof.M.Dutta,

Professor and Head, Computer Science.

## Objectives:

- (i) To empower the faculty and staff of technical institute in the use of ICT Tools
- (ii) To equip the human resources to design and implement technology enabled learning
- (iii) To create master trainers to manage technology enabled learning

**Introduction:** Higher and Technical education in this country needs revamping as the expansion, equity and excellence still remain the focus in 12<sup>th</sup> five year plan. Technology enabled learning has the potential to meet these goals. In the digital age, the younger generation is more tech savvy and utilizing the tools of ICT for learning such as blogs, social media, on-line courses, spoken tutorials, discussion board etc. ICT –enriched teaching-learning is becoming a reality. The changing socio-educational culture and to present teacher as a reflective professional and an expert in offering quality learning, the teachers are to be equipped with knowledge of ICT tools and their use in teaching learning. ICT tools and media technology is seen as a core competency for future teachers to cope up with the upcoming demands. Use of e-resources, on-line interactive sessions, LMS etc. are penetrating the education systems in a rapid pace.

Teachers need to use these ICT tools for improving the effectiveness of teaching – learning, design and developing open and on-line courses including that of distance mode. Thus they require to develop essential competencies to meet the requirements of digital era. To-day the teacher role is seen in the changing context as:

- Providing individual pathways of learning
- Creating and producing together
- Developing autonomous learners

The transformation from traditional mode of delivery to digital mode of delivery requires specialized training. The proposed six months ( One semester) certificate course in “ICT Tools for Technology Enabled Learning” to be offered by National Institute of Technical Teachers Training and Research (NITTTR),

Chandigarh intends to offer the conducive platform to the teachers of the technical institute not only to acquire the skill set required but also to act as master trainers and play a pivotal role in the development of future teachers of this country.

**Duration:** (i) Minimum Time to Complete : Six Months

(ii) Maximum: One Year

**Eligibility:** Faculty member of any institute.

**Course Fee:**

Rs.12,000/- if paid on module basis( @ Rs.2000/ per module).

**Rs.10000/- if paid one time.**

The Fee is meant to meet the expenditure incurred to develop and supply the instructional materials, conduct examinations, evaluation and certification. The total process will be done through a LMS based system specially designed to offer the programme.

**Mode of Delivery:** The self-learning course materials shall be made available to the registered participants on-Line using Moodle based LMS. Off line DVDs shall also be made available. Talk to a teacher approach ( an interactive mode) shall help the participants to interact with the expert faculty to clarify the doubts and to learn further using Google hangout as per a predefined scheduled date and time.

**Certification by:**

NITTTR, Chandigarh ( Approved by MHRD, Govt. of India)

## Course Structure

Course Code	Subject Title	L	P	Total Credit	Marks	Remarks
ICTL-101	Open Source Video and audio Tools	01	03	04	100	To be offered in September, 2014
ICTL-102	Development of Animation and Graphics	01	03	04	100	To be offered in October, 2014
ICTL-103	Development of video lectures and spoken tutorials	01	03	04	100	To be offered in November, 2014
ICTL-104	E-Content generation	01	03	04	100	To be offered in December, 2014
ICTL-105	Learning Management System	01	03	04	100	To be offered in January, 2015

ICTL-106	Project and Use of Social media to create live class room	01	03	04	100	To be offered in January,2015
Total :				24	600	

**Course Content:** Course content shall be flexible to adopt the latest tools and technology that are pertinent to technology-enabled learning. The approved committee will review the content after each semester to incorporate the latest tools.

**ICTL-101: Open Source Video and audio Tools ( L-01-P-03-Cr-04):** Video hardwares, Recording of live video, Editing of video, Video mixing, Video file formats, Hands on tools like windows movie maker, VSDC free video editor, Light work, Free make video converter, Handbrake, Media Coder, Any video converter, Vid Down loader, VLC media players, Home Cinema, SM player, Camtasia etc, streaming of video. Recording of live audio, mixing of audio, removal of his, hum, other background noises, audio editing, audio formats, audio hardware, multi track recording, hands on open source tools like audacity, mp3Direct cut, sound engine, Audio book cutter, wave surfer, Media human audio converter, Free audio converter, installation and use of audio media player like UM player, VLC, KM player, audio streaming using tools like Ice cast, Firefly media server etc.

**ICTL-102: Animations and Graphics( L-01-P-03-Cr-04):** Animation and Graphics hardware, Animation and graphics file formats, Hands on with tools like Ink scape, Blender, Pixlr, GIMP, Word Press, Paint.Net, Krita,

Cinepaint, gPick, Google Sketch-up, Tux Paint, Archimedes, Avidemux , Art of Illusion etc.

**ICTL-103: Development of Video Lectures and Audio Tutorials ( L-01-P-03-Cr-04):** Video script writing, audio format selection, generation of animation and graphics, multimedia component insertions, making video lectures and audio tutorials using above tools.

**ICTL-104: e-Content generation( L-01-P-03-Cr-04):**

The e- content generation tools are useful in creating rich multimedia content or e learning material that can assist in encouraging student engagement in online classes. The tools like XiCal, W2L(What2Learn), ClassTools.Net, CAMSTUDIO, Jelsim,eXe etc. assist teachers and academics in the publishing of web content without the need to become proficient in HTML or XML markup. We can produce web-based slide shows, tutorials, tests and whatever else you can think of that can make use of integrated rich media, such as audio (speech and music), video, animations or interactive visual diagrams and the likes.

**ICTL-105: Learning Management System( L-01-P-03-Cr-04):**

Exercise in uploading video, audio, conducting of live sessions, conducting quizzes etc using Learning Management System like Moodle, Cabos. Content development tools, PDF creator, Doc book, LAMS, Edx, Dokeos e-Learning studio. Extensive hands shall be perform to manage content and learning environment for the masses.

**ICTL-106: Project and use of Social Media to create live class room( L-01-P-03-Cr-04):**

Social media like face book, twitter, You Tube, Skype etc. their requirements like bandwidth, limitations, guide lines etc. Creating live sessions through these social media. Interaction with programme offering sites like **coursera etc.** Offering of programmes through social media. Controlling of audio, video, question sessions, Extensive exercises for live sessions. Off line editing and up-

loading of course materials in social networks. The candidate needs to learn open source tool like open office etc. Practically interact with interface of smart board, installation of audio and video system, networking and its configuration, installation of video conferencing system, creating of blogs etc. The candidate needs to set up a network through this project to show his/her skill in content development, learning management and organizational planning.

**Evaluation:** The candidate will have to go through continuous evaluation of skill of various tools. Each subject is of 100 marks out of which 50 marks shall be awarded by continuous evaluation and 50 marks by the board of examiners where the candidate has to perform a project. After going through the self learning materials, the registered participant can opt for appearing the continuous evaluations which consist of (a) one and half hour examination, (b) fifteen minutes Quiz (c) There will be two assignments on practical skill for each subject which the candidate has to submit on-line . All these examinations are to be conducted on line. He/She may appear for one or for all the subjects/ modules as per the suitability of the candidate. . The final evaluation i.e the project based evaluation shall be carried out at NITTTR, Chandigarh or the centres specified by NITTTR, Chandigarh as per the date and time specified for the candidate. Duration of the final evaluation is fixed as 04 ( four) hours.

**Grading:** There will be three types of Grading:

**Successfully Completed with Distiction: 70% and above**

**Successfully Completed: 50% and above but less than 70%**

**To repeat: below 50%**

**Total Marks: 600**

**Coordinating Department:**

**Educational Television Centre**

## Supporting Departments:

- (i) Computer Science Department
- (ii) Education and Educational Management Department

**Commencement of the Course: September, 2014**

**Registration Opens: 21<sup>st</sup> July, 2014**

**Registration Fee: Rs.500.00 ( Five Hundred Only) non-refundable. ( pay by DD in favour of "Director, NITTTR, Chandigarh payable at Chandigarh"**

## **Application Form for Registration in Certificate Course in "ICT Tools for Technology Enabled Learning"**

**To be filled by the candidate**

- 1. Name:**
- 2. Designation:**
- 3. Name of the department**
- 4. Name of the institute where employed**
- 5. Date of birth**
- 6. Address for correspondence including e-mail and mobile no.**
- 7. Permanent address**
- 8. Highest Educational Qualification**
- 9. Total years of experience (a) Industry and/ R & D ( b) Academic**
- 10. Brief on computational knowledge/Skill ( within 100 words)**
- 11. Details of the payment attached:**

**Certify that the above information provided by me are correct and I will abide by the rules and regulations of NITTTR, Chandigarh if permitted to join the certificate course in "ICT Tools for Technology Enabled Learning".**

**Date:** Signature of the applicant

**Place:** Name of the applicant

**To be filled by NITTTR, Chandigarh**

**(i) Date of Registration:**

**(ii) Registration Number:**

**(iii) Payment details:**

**How to apply:**

**(i) Submit your application on line and send the DD by post on the below mentioned address.**

**(ii) Registration fee to be paid in favour of "Director, NITTTR, Sector-26, Chandigarh-160019"**

**Address for Correspondence:**

**Director,**

**National Institute of Technical Teachers Training and Research (NITTTR)**

**Sector-26, Chandigarh-160019**

**[www.nitttrchd.ac.in](http://www.nitttrchd.ac.in)**

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