INDIVIDUAL COURSE DETAILS

e - ITEC

Integrating Information and Communication Technology(ICT) tools for Teaching and e-Learning

A. Name of the Institute	**NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING AND RESEARCH TARAMANI, CHENNAI – 600 113. [Ministry of Education, Government of India] Taramani, Chennai – 600 113, INDIA.**
B. Title of the Course	**Integrating Information and Communication Technology (ICT) tools for Teaching and e-Learning**
C. Course Duration	Weeks : Two weeks (online) 04th September 2023 to 15th September 2023
D. No. of days of Training	Days: 10 days (online)
E. Eligibility Criteria for Participants 1. Educational Qualification	Graduate Degree/ Diploma in Science / Education / Management / in Engineering / Technology/TVET and good proficiency in spoken, written and comprehension of English.
2. Work Experience	Working Experience related to Education / Technical Education / Vocational education / Industrial Education / Technical School / Polytechnic / University / Engineering College TVET / Management Institute
3. Age Limit	less than 55 years
4. Target Group	Educational Administrators / Directors/ Heads / Senior Faculty of Institutions like TVET Institutes/ Vocational Colleges / Technical Schools / Polytechnics / Engineering Colleges / University Departments/ Government Policy Makers/ Administrators / Officials from the Ministry of Education / Higher Education / Technical Education / Vocational Education/ Human Resource Development / Labour Ministries / TVET related Ministries / Academic Leaders / Executives
F. Aims & Objectives of the Course	Upon completion of the course, the participants would be able to ➢ comprehend the technology needed for wired / smart WiFi network campus ➢ know the set up for smart classroom with audio-video solutions

	➢ appreciate the use of ICT applications for Education
	➢ explore the ICT initiatives of Ministry of Education (Government of India)
	➢ know the different Massive Open Online Courses (MOOC)
	➢ use different ICT tools
	➢ use different simulation technique for teaching and learning
	➢ develop rich media E-learning resource for courseware
	➢ learn e-assessment tools
	➢ customize Learning Management System (LMS) for online delivery
	➢ experience Metaverse Technology / Immersive Learning (AR/VR/MR/XR) environment
	➢ comprehend the use of Artificial Intelligence in Education
G. Details of Content of the Course / Training Schedule (*pl attach a simple thematic / day-wise schedule (topics covered))***.*	As per the Government of India scheme on Digital India Mission, the Digital India programme is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy.

E-Pathshala – Developed by NCERT, e-Pathshala showcases and disseminates all educational e-resources including textbooks, audio, video, periodicals and a variety of other print and non-print materials through the website and mobile app.

The development of new broadband communication services, convergence of telecommunication with computers and recent developments in the field of communication protocol have fostered challenges as well as offerings in the wide-ranging use of Information and Communication Technologies (ICTs) to support the creation of dynamic and interactive teaching and learning environment. Mastering ICT skills and their application to improve teaching and learning provide teachers the tools to perform their role as creators of pedagogical environments. Learners, on the other hand, take part in the sharing of needed learning space to acquire collaborative learning principles, learning independence and to enhance critical thinking, creative thinking and problem solving skills. This course is geared towards providing an opportunity for the participants to use ICT tools for Teaching and Learning effectively.

Topics to be covered:
- Networking and Smart Wi-Fi Technologies for Campus
- Smart classroom with audio-video solutions
- Strengthening of TVET Systems through the Integration of ICT |

	- Video Conferencing Technology for Online Delivery - ICT applications for Education - ICT initiatives of Ministry of Education (Government of India) - Massive Open Online Courses (MOOC) - E-Learning and Innovations in ICT for Education - Open e-resources - Interactive Digital content development using Multimedia Tools - Content Management System (CMS) & Learning Management System (LMS) - Google Tools and Google Classroom - Teaching and Learning through Simulation Techniques - ICT for Instructional Delivery - E-assessment tools - Social Networking Tools for TLP - Comprehend the technology needed for wired / smart Wi-Fi network campus - Metaverse Technology / Immersive Learning (AR/VR/MR/XR) environment - Artificial Intelligence in Education
H. Mode of Evaluation of Performance of the ITEC Participant	The participants will be given assignments related to course development using ICT. Preparation of country specific assignments, development of LMS and course Proposals.
I. Platform for delivery of online course (wherever applicable)	Google Meet
J. Name of the Department	Centre for International Affairs, NITTTR, Chennai
K. Name of Coordinator	Prof. Dr. G. Kulanthaivel Prof. Dr. G. Kulanthaivel, Professor of Electronics and Communication Engineering and Head, Centre for International Affairs, National Institute of Technical Teachers Training & Research, Ministry of Education, Government of India, Chennai, India received his Ph.D. degree in Information and Communication Engineering from Anna University, Chennai. He completed his Master's degree in Microwave and Optical Engineering from Madurai Kamaraj University and Bachelor's Degree in Electronics and Communication Engineering from University of Madras. He has also obtained his Master's degree in Business Administration (M.B.A.) from TNOU, India. He is having experience of 30 years out of which more than 27 years in training of technical teachers in India and abroad. He has worked in Colombo Plan Staff College (CPSC), Manila, Philippines as Faculty Consultant & Chairman of the Information and Communication Technology Division for nearly four years on Government of India deputation. He has also acted as Acting Director General of CPSC and Acting President of APACC for more than one year. He is an Accreditor for

	Asia-Pacific Accreditation and Certification Commission (APACC), Philippines from 2014. His area of interest includes Biomedical Engineering, Telemedicine, Computer Networking, Communication Engineering, IoT and Cyber Physical Systems, Virtual Instrumentation, ICT applications in Education and Training, TVET, Accreditation, Instructional Design and Delivery Systems. He has published/presented more than 100 papers in the National/International Journals/Conferences/Seminars. He has visited around 20 countries (Bangladesh, Bhutan, Brunei, China, Dubai, Fiji, Hong Kong, Indonesia, Laos PDR, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Singapore, South Korea, Sri Lanka and Thailand) and conducted different Quality Improvement Programs. He has received many awards from different Organizations. He is member of many International/National Professional bodies including Institute of Electrical and Electronics Engineering {IEEE(USA)}, American Society for Engineering Education (ASEE) and International Vocational Education and Training Association {IVETA – USA}. He is Fellow of the Institution of Electronics and Telecommunication Engineers - (FIETE), Fellow of the Institution of Engineers (India) - (FIE) and presently Chairman of IEEE Technology and Engineering Management Society (IEEE-TEMS Madras Chapter).
L. Resource persons	Faculty members of NITTTR Experts from Academic Institutes / Universities Industry experts