

INDIVIDUAL COURSE DETAILS

**Strengthening Technical and Vocational Education & Training (TVET) Systems to meet the Sustainable Development Goals(SDGs) of United Nations
(ITEC / e-ITEC)**

A. Name of the Institute	NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING AND RESEARCH TARAMANI, CHENNAI – 600 113, INDIA [An Autonomous Institute under Department of Higher Education, Ministry of Education, Government of India] Taramani, Chennai – 600 113, INDIA.
B. Title of the Course	ADVANCED Certificate Course on Strengthening Technical and Vocational Education & Training (TVET) Systems to meet the Sustainable Development Goals(SDGs) of United Nations
C. Proposed Mode of the Course 1.Offline(Physical - Regular ITEC) 2.Online (e-ITEC) 3.Either Offline(Regular ITEC) or Online (e-ITEC)	 3.Either Offline(Regular ITEC) or Online (e-ITEC)
D. Proposed Dates and Duration of the Course (in weeks / months)	17.10.2022 To 11.11.2022 (4 weeks)
E. Eligibility Criteria for Participants 1. Educational Qualification 2. Work Experience 3. Age Limit 4. Target Group	 Graduate Degree/ Diploma in Science / Education / Management / in Engineering / Technology/TVET and good proficiency in spoken, written and comprehension of English. Working Experience related to Education / TVET / Technical Education / Vocational education / Industrial Education / Technical School / Polytechnic / University / Engineering College /Management Institute less than 55 years 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 / Educational Administrators / Directors/ Heads / Senior Faculty of Institutions like TVET Institutes/ Vocational Colleges / Technical Schools / Polytechnics / Engineering Colleges / University Departments
F. Aims & Objectives of the Course	Upon completion of the course, the participants would be able to i. Know the Sustainable Development Goals (SDGs): "Transforming our World: the 2030 Agenda for Sustainable Development." ii. Plan to achieve the Sustainable Development Goals related to TVET in their respective country iii. Improve Image Building of TVET

	<ul style="list-style-type: none"> iv. Aware of the Institutional Leadership and Management v. Gain knowledge of National Vocational Qualification System (NVQS) vi. Prepare guidelines for organizing technical education institutions through public private participation. vii. Develop guidelines for selection of students, teachers and equipping the institutes. viii. Improve Teaching and Learning Process ix. Use Information and Communication Technologies (ICT) applications in education and training x. Outcome based Education(OBE) xi. Know Recognition of Prior Learning(RPL) xii. Know the Quality assurance mechanisms through National accreditation/ International accreditation xiii. Generate process of creating a centre for excellence in technical and vocational education. <p>Plan to improve the programmes through the participation of industries (Industry Institute Partnership).</p>
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G. Details of Content of the Program <i>(please attach detailed course profile)</i>	<p>The following modules are prepared specifically for this programme.</p> <ol style="list-style-type: none"> 1. Process to achieve different Sustainable Development Goals(SDGs) related to TVET 2. Image Building of TVET 3. Leadership and Management 4. National Vocational Qualification System (NVQS) 5. Guideline for organizing TVET Institutions through Public Private Participation 6. Instructional Design and Delivery Systems 7. Information and Communication Technologies (ICT) applications in education and training 8. Outcome Based Education (OBE) 9. Recognition of Prior Learning(RPL) 10. Guidelines for evaluation of Quality in planning and implementing various programmes in technical and vocational education. 11. Process of conducting action research studies, tracer studies and impact studies in technical and vocational education. 12. Quality Assurance through National / International accreditation like Asia Pacific Accreditation and Certification Commission (APACC). 13. Process of creating centre for excellence in TVET education through the assistance of National/ International Development Agencies 14. Industry Institute Partnership
H. Expected Outcomes	<p>The participants are expected to</p> <ul style="list-style-type: none"> - Plan to achieve the Sustainable Development Goals related to TVET in their respective country - Improve Image Building of TVET - Gain knowledge of National Vocational Qualification System (NVQS) - Improve Teaching and Learning Process - Use ICT applications in education and training - Prepare Outcome based Education(OBE) Curricula - Understand Recognition of Prior Learning(RPL) - Explore different Quality assurance mechanisms
I. Evaluation of Performance of the ITEC Participant	<p>Preparation of country specific assignments, development proposals and detailed project proposals for getting approval from international development agencies; seminars based on the project works.</p>
J. Name of the Department	<p>Centre for International Affairs, NITTTR, Chennai</p>
K. Name of Coordinator	<p>Prof. Dr. G. Kulanthaivel</p>
L. Brief Profile / CV of Coordinator	

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 28 years out of which more than 25 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)} 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).

M. Resource persons	Faculty members of NITTTR, Experts from Academic Institutes / Universities Industry experts
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**Certificate Course on
Strengthening Technical and Vocational Education & Training (TVET) to meet
the Sustainable Development Goals of United Nations**

COURSE PROFILE

The world has concluded the Millennium Development Goals in 2015 with much fanfare as there is much scrutiny. Despite being hailed as one of the most effective pieces of international engagement fostering the inclusive and holistic development of developing nations, its gaps are subsequently addressed in the next phase of the Millennium Development Goals (MDGs), the Sustainable Development Goals (SDGs), which has 17 Goals. As the product of a high-level political and social delegation, the SDGs provided a framework for future development agenda by setting targets that are relevant in addressing emerging challenges.

One of the most crucial goals of the SDG is Goal 4, which states the need to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”. The role of TVET particularly in developing skills for lifelong learning takes center stage as the world sees its relevance. It was recognized by the UNESCO (2015), along with literacy and higher education, as “one of the three priority subsectors for UNESCO in our work to foster inclusive and equitable quality education and lifelong learning opportunities for all”. UNESCO also cited that unleashing the potential of improving TVET has significant

economic implications, citing that it is a source of “skills, knowledge and technology needed to drive productivity in the knowledge-based and transition societies of the 21st century”. This premise is profoundly significant to most Asia-Pacific countries which are still striving to turn their social and economic situation from the one mired in a “vicious cycle” to a one enjoying the benefits of a “virtuous” cycle of full employment, sustained economic growth, economy geared towards innovation, high productivity and high inflows of foreign and domestic investment.

There is a growing demand for recognition of Technical and Vocational Education and Training (TVET) institutional qualification across borders due to a large number of emerging factors such as increasing economic globalization, significant migration flows, increasing international labor market opportunities for the highly skilled and the growth in the international trade and services. The twenty-first century presents a radically different economy and society, which is likely to have profound implications on TVET. Globalization generates new demands, structures and systems requiring totally new skills or re-oriented skills and knowledge that could make society fit, competitive and responsive. TVET and sustainable development are inevitably connected – a case of means-end relationship. TVET, the process, has an essential role to play in raising awareness, and providing skills and values considered necessary to put sustainable development into practice. As the goal, sustainable development lies at the heart of the TVET system, and become the platform among the society it serves.

A sustainable and inclusive TVET would mean a quality TVET delivery and implementation. This is the direction promoted by various educational institutions and organizations in ensuring TVET's future in the field of education and training. It has been mentioned by UNESCO (2016)¹ in its recommendations to TVET that “member states should establish a system for quality assurance in TVET based on participation by all relevant stakeholders”. In order to address the growing expectations of industry, continuous enrichment of the quality of TVET is a key priority in the region. Quality enhancement is one of the main objectives of the TVET system. Other key objective includes increasing the attractiveness of education, training, and promoting mobility among technical and vocational students. With the increasing mobility of workforce in the region, demand for mutual recognition of qualification through a sound accreditation framework is expected to increase. With a view to achieve international competitiveness and sustainable development, quality TVET institutions with excellent programs should be created. It must be the goals of each country to maintain TVET institutions that have innovative programs that can influence the human capital and thus achieve international competitiveness.

In this 21st century there is a great need to supply needed technical human resource to fast growing industries. Most of the developing countries do not have experience in planning, developing and implementing appropriate human resource development programmes in technical education. India developed the above processes through various trial and error methods. Now India is the third largest technical education provider in this world. Many International Development Agencies like World Bank, UNESCO, UNDP and CIDA assisted India to organize and implement these spectacular developments in Technical Education. Many visiting ministers of education from Mauritius, Seychelles, Ethiopia, Sri Lanka, Nepal and Bhutan appreciated the process of developing technical education in India and desired a training and development programme for their officials. Since, 1970s this Institute played a lead role in planning and developing the technical education system. Hence, it is proposed for international audience.

In the 21st Century there is a need for well trained skilled workers, technicians, engineers, scientists, managers and technologists to meet the growing demands of industrialization. Many developing countries are not having appropriate technical institutions to meet the human resource demands. India, since 1947, has planned many five year plans to meet the human resource demands of the independent country. Now it is one of the largest human resource developers not only to meet the country's demands but also to meet the global needs. This is due to planning of educational policy, approving private public partnership, establishing national councils, commissions, accreditation bodies, technical teacher training institutes especially for technical education, direct central assistance, technical universities, National institutes of technologies, high end research based institutes in science, information technology and management.

¹UNESCO (2016). *Recommendations Concerning Technical and Vocational Education and Training*. Paris.

Indian technical education system slowly developed into one of the world's leading system. Hence, the programme is designed to meet demands of the developing countries in Asia, Africa, South America, Eastern Europe and the Oceania.

The models are developed to meet the planning needs of Government Policy Makers / Officials from Ministries / TVET education planners, administrators, heads, faculty and other officials. The programme would be of great use in planning developing appropriate National educational policy, TVET Institutes, industrial training institutes, polytechnics, engineering colleges, technical teacher training institutes and technical universities. The proven models will assist the education administrators who wish to plan and design appropriate TVET education system. The participants of this International Program will be visiting various technical institutes and will be interacting with the administrators, and faculty members to get the feedback on growth and management of Institutions.