



Technical Session IV : Presentation- 1

Transforming Indian TVET Programs For Industry-4.0

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ABSTRACT

Concept of 'Industry-4.0', first identified by Germany in 2011 is considered to accelerate the global economy through transformations of manufacturing technology by digital systems using innovative information and communication technology. Technical and vocational education and training (TVET) programs have to be redesigned to meet the employers' needs in adopting Industry-4.0 technologies. Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis of Indian TVET system shows that they have to be improved and the resources are to be modernized. Crucial skills like virtual collaboration, cognitive load management, and computational thinking are needed to face the Industry-4.0. Further, it demands a broad range of new technology- based competencies in cyber-physical systems, Internet of Things, cloud and cognitive computing and strengthening links between TVET Institutions and Industry 4.0 based companies. The existing TVET programs have to be evaluated and improved in collaboration with the industries. The new TVET institutes could be established in the industrial hubs and corridors so that the students can learn on the work-placed mode. The TVET faculty training institutes are to be expanded and the faculty members have also to be trained in implementing revised and new TVET programs. As suggested by National Education Policy 2019, PSS Central Institute of Vocational Education has to be expanded and be networked with other TVET institutes. National Skills Qualification Framework (NSQF) has to fine tuned to develop industry ready graduates.

Keywords: Industry 4.0, TVET Programs, Industrial Corridors and Hubs, Work-Place training, Networking of the TVET Institutes

BRIEF CV

Dr. Thanikachalam Vedhathiri is a Ph.D. in Filter Design from Madras University and M.S. from Inst. Sys. Tech., Indiana Univ. USA. Dr. Vedhatiri served as Professor and HOD for Center for International Affairs at National Institute of Technical Teachers Training and Research, Chennai, Nodal Officer for World Bank Assisted Projects in Technician Education; and Program executive for other development projects under IDAs.

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