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Commonwealth Educational Media Centre for Asia

KEYNOTE ADDRESS

ARTIFICIAL INTELLIGENCE (AI) FOR TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (TVET)

By

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A TWO-WEEK TRAINING PROGRAMME ON ARTIFICIAL INTELLIGENCE IN TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (AI IN TVET)

Organised by

Commonwealth Educational Media Centre for Asia (COL-CEMCA), New Delhi
and
National Institute of Technical Teachers Training and Research, Chennai

Inaugural Session

7 April, 2025

09:00 AM to 11:30 AM IST

Commonwealth Educational Media Centre for Asia (CEMCA)

7/8 Sarva Priya Vihar,
New Delhi, 110016
India



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Dear colleagues

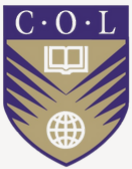
I am thankful to Professor Usha Natesan for this important partnership forged between National Institute of Technical Teachers Training and Research, Chennai (NITTTR-C) and the Commonwealth Educational Media Centre for Asia (CEMCA), the Asian Regional Centre of Commonwealth of Learning (COL)! Professor Natesan has been very warm in this relationship since the first time we reached out to her calling out for a fruitful partnership in advancing COL-CEMCA's agenda in strengthening institutions and faculty members involved in TVET education. The mandate well sits with NITTTRs around the nation, and NITTTR-C being very strong in technology-enabled learning practices, this has been a very natural and hopefully a fruitful partnership!

My sincere thanks to Shri Mrutyunjay Behera, the Economic Advisor, Government of India, for gracing the occasion with his special remarks. Shri Behera has worked with NITTTRs in the past and is quite familiar with the work of NITTTR-C. I am grateful for the time he spares for COL-CEMCA extending his advice in various ways.

Special thanks to Dr E Balasubramaniam and Dr Sasirekha for their brilliant coordination from NITTTR-C and to my own colleague, Ms Nabeela Ata who has worked tirelessly to help recruit participants from six of our Commonwealth nations in Asia. Ms Ata has been the main anchor of this effort, and I wish to record her contributions to this programme with much gratitude.

I am thankful to all our focal point members and our partners in all Asian Commonwealth nations who have nominated the brilliant set of 60 people to join this training and co-learn with us. Each of the 60 participants, I understand, is very busy in her/his own work programmes, but has chosen to spare a good 60 hours of learning over the next two weeks, most of which could well be accomplished through the Google Meet sessions. I am sure the programme will be very interactive and engaging.

While the role of AI in TVET is something we shall explore throughout the two weeks of our interactions, be it in the area of, say, Personalised and Adaptive Learning, AI-Powered Skill Assessment, the use of AI-led Virtual and Augmented



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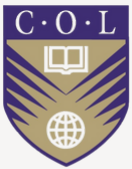
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Reality (VR/AR) for Skills Training, use of AI in Automation of Administrative Tasks or in Curriculum Development and Enhancement, be it Career Guidance and Job Placement or enhancing accessibility and inclusivity.

I wish to, however, say a couple of things about the generic changes that are witnessed in our society today. The integration of Artificial Intelligence (AI) is rapidly transforming the future of work, bringing about significant changes and challenges for workers and the workplace.

Impact on the Future of Work: We have already started seeing increased automation of tasks, especially the routine, repetitive, and even some cognitive tasks, aimed at increasing efficiency and productivity across various sectors and industries. This leaves humans to concentrate on more strategic, creative and complex aspects of the job, making the humans highly valuable. We have also seen the creation of new jobs while certain jobs are being displaced due to automation. There are many reports on the impact of jobs and the evolution of existing job roles. Many existing jobs will not be entirely replaced, but will be transformed by AI. Workers will need to adapt to collaborating with AI tools, focusing on tasks that require uniquely human skills, such as creativity, critical thinking, emotional intelligence, and complex problem-solving. AI can analyse vast amounts of data much faster and more accurately than humans, leading to better decision-making, optimised processes, and increased overall productivity. Finally, AI-powered data analytics are increasingly applied in decision-making processes.

Impact on the Future Worker: AI forces future workers to have new skills to work effectively alongside AI. This calls for data literacy as well as a variety of soft skills and what is known as 21st Century skills. The workers also go through anxiety over job security and potential displacements, especially if they are carrying out repetitive tasks. These workers now having to use AI itself to augment their own abilities to make work and the workers' life more efficient. I would call for the 3D jobs – difficult, dangerous and dirty jobs – to be handed over to AI. AI also helps workers to monitor their own productivity in real-time, be it through wearable devices or the ones that can help inform the workers' conditions. Future workers shall have increased mobility and flexibility to perform tasks remotely. The notion of biometrics at workplaces and fixed offices



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are being challenged. Also, we are facing a scenario where the future worker will need to learn to not only work with fellow human beings as colleagues, but also with AI agents as colleagues. This requires some evolution.

Impact on the Future Workplace: With automation and digitalisation happening at workplaces, especially in all sorts of processes, from HR functions to IT support to service helpdesks to operations, we see a dramatic shift. We also see a sea-change in the automation of mundane tasks and the introduction of bots and robots in place of people. Anytime anywhere offices with AI-powered smart workspaces help corporations to optimise resource utilisation, manage facilities and go efficient in many ways. Added to this is the data-driven decision-making that allows for gaining insights and predicting future course of action, be it resource allocation, recruitment, and employee management. Workplaces of the future will not require secretarial assistance nor translators or even legal assistants or documentalists. It may be possible that even project management load can be shared between workers and AI agents. That said, AI can also help create more inclusive workplaces and workspaces where persons with disability can seamlessly work with support from AI, sometimes even more efficiently than the abled women and men. Future workplaces will need to, however, grapple with ethics and responsible use of AI in workplaces without biases and skewed reasoning. Also, the workplaces should resist surveillance and entering private spaces of workers – for these are getting blurred.

One can say, therefore, that AI is poised to revolutionise the future of work, future worker and the future workplace in its own way. Continuous adaptation, upskilling, and a focus on human-AI collaboration will be key to harnessing the full potential of this transformative technology.

AI in Technical and Vocational Education and Training (TVET), therefore, is also forced to modernise learning environments, enhance skills acquisition, and align training with the demands of the evolving workforce. As noted in a study on the most common use of AI in education and training, we have started seeing in campuses and educational institutions the use of AI in the form of voice assistants, grading software, undertaking admin tasks, supporting personalised learning, creating smart content, providing intelligent tutoring and managing virtual learning environments and extending access to education and training to 'all.' **The two-week long intensive deliberations on the use and application of AI in TVET is just the beginning.**