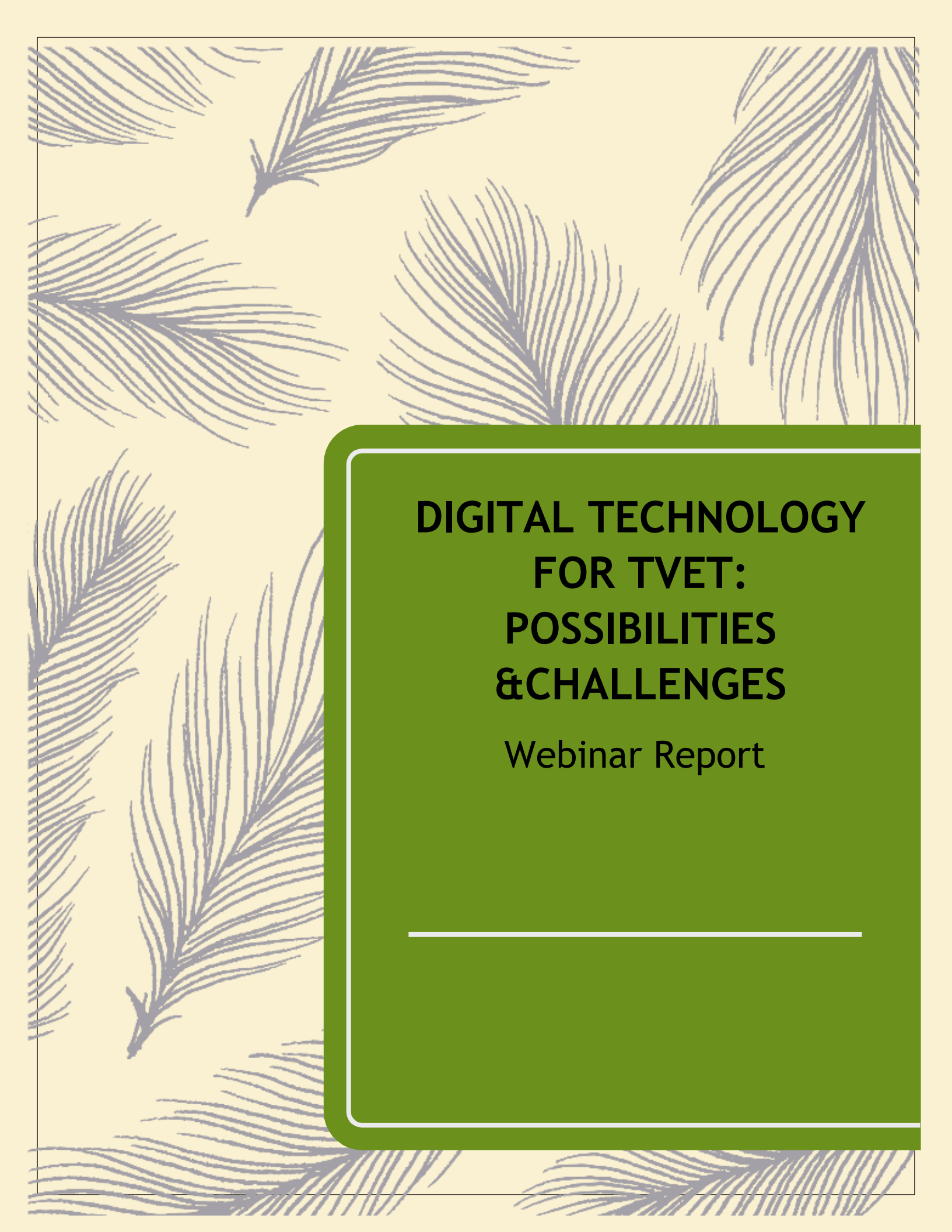




DIGITAL TECHNOLOGY FOR TVET: POSSIBILITIES & CHALLENGES

Webinar Report

**AMBEDKAR UNIVERSITY DELHI
SCHOOL OF VOCATIONAL STUDIES**

**WEBINAR REPORT
ON
DIGITAL TECHNOLOGY FOR TVET: POSSIBILITIES & CHALLENGES
May 29, 2020 from 11.00 am to 2.30 pm at Google Meet and YouTube**

Covid-19 pandemic has disrupted nearly every aspect of life. People across the globe are adopting new means and are shifting their businesses to digital or the online technology to help them weather the crisis and prepare for new ways of operating and serving customers. Same is the case with the education sector as all the educational institutions are closed globally, teachers have started to adopt new ways of teaching-learning processes through digital platforms in a synchronous and asynchronous learning situations.

In the Indian context, Technical and Vocational Education and Training (TVET) programmes at all levels, particularly in higher education sector are also faced with a huge challenge of adopting to the new form of teaching-learning pedagogy using digital technologies. Some have already re- oriented themselves in switching to online teaching mode in the form of emergency remote teaching. Besides the loss of face to face learning, the pandemic situation has also curtailed the possibilities of the much needed industry internship focusing on the hands-on training on a specific job role as outlined in the National Skill Qualifications Framework (NSQF), which has raised many concerns amongst all the stakeholders including industries and academia. Therefore, currently the most pressing need with the Skill and Vocational Education and Training programmes is to quickly adapt itself to the digital environments. A transition from real live face-to-face system within the four walls of classroom/industry laboratories to digital/online situation or in some cases blended learning approach would be apt to meet with the emergent needs of this sector. Some countries have already transitioned in providing technical and theoretical content, where support is offered live and online using digital technologies. Further, innovative practices include simulated environments and live recordings captured for work-based learning. Few education institutions have started working on improving assessments of workplace performance virtually and changing exams modalities and/or shifting exams online, which have traditionally taken place in physical spaces. This can also be innovatively channelized to promote and provide niche for individual and independent exploration and learning for students through some kind of handholding and guidance by the faculty.

It is in this context the School of Vocational Studies organised a webinar on Digital Technology for TVET: Possibilities & Challenges on May 29, 2020 from 11.00 am to 2.30 pm. The webinar

was organised using Google Meet platform and livestreamed on YouTube simultaneously. It was attended by over 85 participants from all over India.

Welcome & Introduction to the Webinar Address

Prof. Sitansu S Jena, Dean, School of Vocational Studies opened the Webinar by extending his greetings to Prof. Salil Mishra, Pro Vice Chancellor, Ambedkar University Delhi, the Resource Persons and the participants. Stressing upon the urgent need for a paradigm shift in the field of TVET education, he stated that while everyone is trying to function in isolation, the orientation of skill development program has to change. He also hoped that the deliberations of the sessions will help to provide a direction to convert these challenges into opportunities.

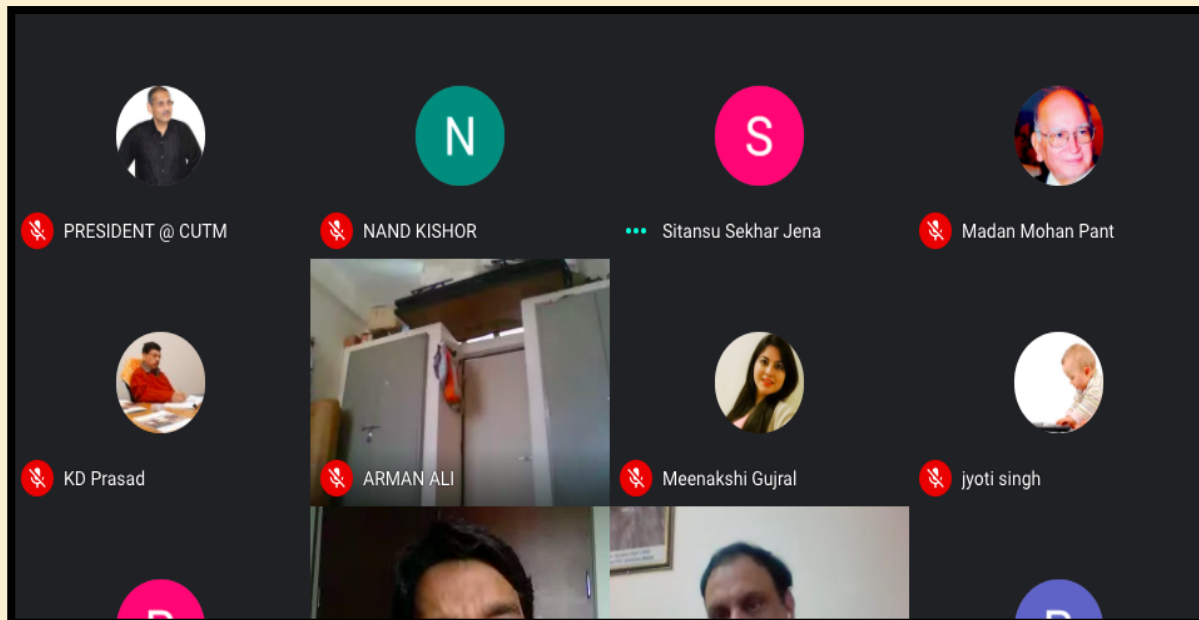
Prof. Salil Mishra began his talk by saying that a crisis has gripped the mankind and brought in a sense of disorientation. However, in the midst of this challenge we still have to deliberate the ways in which we can do our best to minimise its effect. Further, we need to ponder and come up with suitable substitutes to collective suctioning and working togetherness. Acknowledging the role of technologies, Prof. Mishra said that these have the potential to make it possible to create mindsets, to bring together and create a synergy among students and teachers. He also asked the participants to think collectively and provide alternative solutions to break the isolation and get approximate to real life situation.

He commented that the themes of the webinar are thought in a way that will encourage us to have multiple perspectives from various stakeholders in the TVET sector while being realistic to the present scenario. He concluded by saying that we need to build communities of practice to work cohesively and put concrete suggestions deliberated in the Webinar into practice.

Technical Session-1: Understanding perspectives of using digital technologies for TVET

Resource Persons: Prof. M.M.Pant, Technology Expert, & Former PVC, IGNOU; Dr.Sanjaya Mishra, Education Specialist, COL Vancouver, Canada

Moderator: Prof Sitansu S Jena



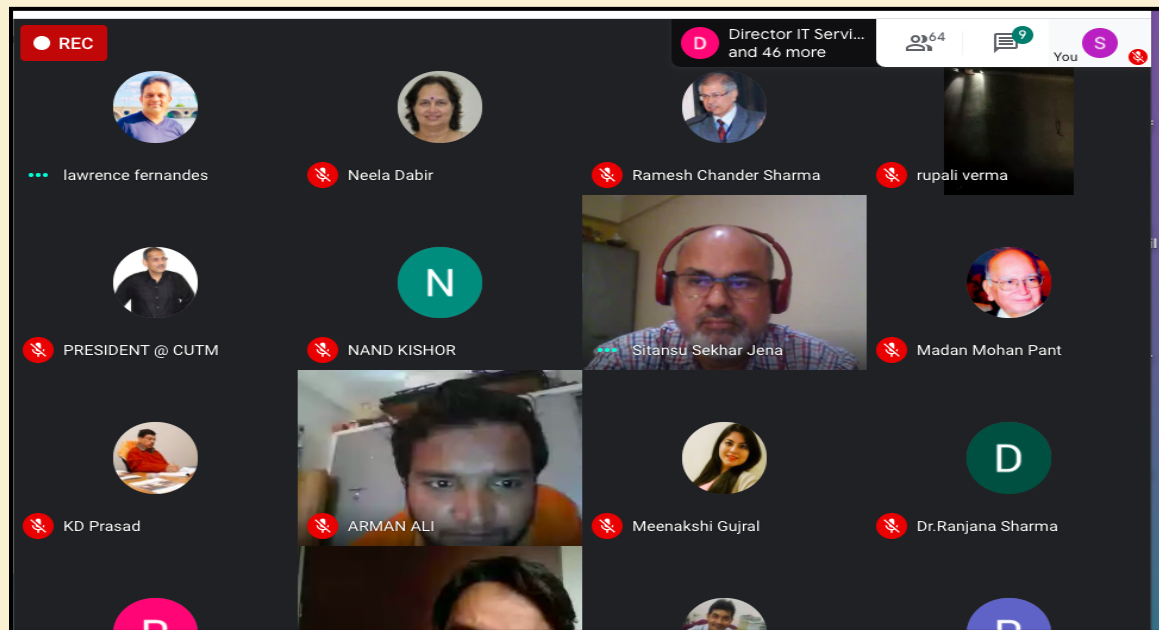
Prof. MM Pant highlighted the scope and opportunities in the skill sector by sharing that looking for a skilled technician is extremely difficult these days. Looking at the altered landscape owing to the prevailing conditions of COVID 19, one has to grapple with the questions and find novel ways of doing things. The foremost are the questions of how to teach and ensure that the students have access to the online classes. He further said that we are in the era of another industrial revolution where Artificial Intelligence is the new electricity. In this age of big data, the artificial intelligence holds the potential to train technicians for various job roles. Given this changed landscape, Professionals in any vocational can give training from anywhere in the world, giving rise to technicians who will be appropriate in this age. Prof. Pant concluded his talk by stating that the first step to making this our reality will be to create vocational programs with a common core curriculum. Thereby ensuring that we can learn back and forth with each other and provide increased opportunities for students to learn.

Online learning is the latest buzzword in the education sector worldwide. Acknowledging the same, Prof. Sanjaya Mishra centred his talk around the boundless opportunities that technology driven learning can provide to our students. He said that according to an estimate, we need to open around 30 universities every week to cater to the huge demand of skilled workforce required in the industries. Given such a situation, technology is not just a resource but a legitimate way to move forward. Putting forth a word of caution, he added that technology alone does not improve learning. It can only be effective when used in the presence of a teacher. So, one needs teachers who are ready to make that shift and learners who are self-motivated and directed towards remote learning. Further, we also need better technologies to help learners learn. Prof. Mishra concluded his talk by saying in order to hone a skill, one requires basic knowledge, repeated practice and expert feedback. He sincerely wished that we could optimise our resources and have more blended learning options for better learning outcomes.

Technical Session-2: Synchronous learning using digital platforms from the practitioner's experience for vocational and skill development programmes.

Resource Persons: Prof. Neela Dabir, Dean, SVE TISS, Mumbai, Prof. Rajesh P. Khambayat, Joint Director, PSSCIVE, Bhopal

Moderator: Dr. Ramesh Ch. Sharma



The proceedings of the second session began with Prof. Neela Dabir's address who shared her experiences of conducting online classes with students at TISS, Mumbai. She brought forth the issue of digital divide among students which can pose a possible hindrance in the accessibility of students to attend classes. She further shared the findings of a survey done by her University that stated that nearly twenty percent of ten thousand students cannot login into the virtual classes owing to poor bandwidth. Further, one cannot assume that all students own a smartphone. Thus, skill training on an online platform can bring with itself a set of challenges. However, one way to address them is to think collaboratively about ways to deal them. An example of the same is recording classes on Zoom Meeting. We need to find better way of course delivery and skill training through digital platform is a challenge. Thus, the future aim to create online content and learning.

Prof. Rajesh Khambayat resonated with the earlier speakers and said that various spheres of everyday lives have been impacted since the occurrence of COVID 19. During this upheaval, the Information and Communication Technologies have played an indispensable part in enabling students to attend classes remotely. Even though these technologies are a cheaper option if done using digital platforms, Prof. Kambayat talked about the challenges. Since, one cannot negate the pertaining digital divide, it can pose a hindrance when maintaining learning continuity. Further, one also has to think as to how to deliver the lectures with technology so that they are engaging. Lastly, there has to emphasis laid to improve the quality of technology. Talking upon his own experience of employing technology at his campus, Prof. Khambayat explained that they are attempting to use ICT in strengthening vocational programs.

Panel Discussion on “Using digital tools for hands-on experiences- the stakeholders’ perspectives”

Resource Persons: *Prof. (Dr.) Mukti Mishra, Fonder & President, Centurion University, Bhubaneswar*
Prof. Parikshat S. Manhas, Director, School of Hospitality and Tourism Management, University of Jammu, Sh. Lawrence Fernandes, Director – Retail Learning & Membership, RAI, Sh. Venkatesh Sarvasiddhi, Senior Head -Digital Skills, Innovation, Industry Partnership & CSR, NSDC

Moderator: *Prof. Sitansu S. Jena*

Prof. Mukti Mishra began his presentation by sharing about the challenges encountered by Universities while implementing online classes. The first being the reorientation of the teachers on the online vocational education. In order for smooth functioning of such classes, we need guidelines by University Grants Commission that allows for practical training of teachers. This would enable the teaching fraternity to cope with their hesitation of online teaching. Prof. Mishra also talked about the devastating effect of Cyclone Amphan in Orissa that has affected connectivity. However, he hoped for a recovery in the coming days. His experience of being in the education field has been that there is still a gap between industry and Universities. The former being latent in its openness. Hence, Prof. Mishra hoped to tackle this attrition challenge by taking baby steps and making honest attempts to connect industry and Universities.

According to Prof. Manhas, the digital tools made their headway in the lives of the people almost two decades ago. With an information boom over the internet, one has to be cautious how to handle all the information available. Another important factor in this direction is to select the right content for the students and process it. The Jammu University started the use of technology way back in August 2005 and since then they have trained 27 batches. Prof. Manhas concluded his talk by saying that we need to be flexible and keep planning for digital technology. Realignment is the order of the day and the world all over is talking about flexibility around the world.

Mr. Lawrence Fernandes, an industry expert talked about how the corporate world is making an attempt to partner with students with an intent to educate students. He too spoke about how the

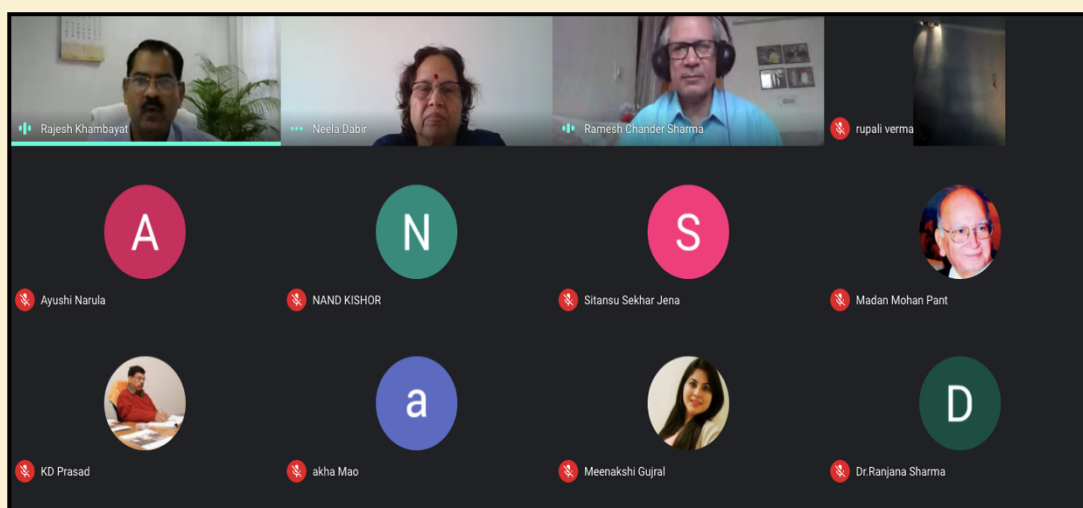
Retailers Association of India (RAI) is coming up with solutions in these difficult times to ensure that there is learning of the students. RAI is conducting webinars with our Retail Management students over Zoom and Google Meet. This way, the students have had the opportunity of having experts online. Predicting future trends, Mr. Fernandes said that digital technology will be the new norm. He further said that RAI is ready for the educational revolution and are putting all the sessions on YouTube for self-paced learning. It is also conducting surveys to have an insight as to how the retailers will be impacted in the long run. Mr. Fernandes ended on a positive note by saying that consumers will keep consuming and he projects that there will be a lot of opportunities for the skilled manpower in the near future.

Mr. Venketesh Sarvasiddhi stated that digital platforms will play a major role and enable a transforming shift. Leading international platforms related to skill are available and the surge these days due to the outbreak. According to an estimate, there is a 700% increase in the enrolment of the e-skill courses in India. Further, 40 percent of the students complete these courses online. Since, a teacher plays an imperative role in the lives of a student, it is an absolute essential that we train our faculty to use online platforms. Projecting the recovery of the economy after the pandemic, he expects a U shape growth curve and stated that National Skill Development Council is monitoring the situation closely.

Technical Session-3: Challenges in using digital technology for vocational education and skill development

Resource Persons: Prof. M.M.Pant, Prof. Neela Dabir, Prof. Vinay S. Mehrotra, Professor & Head, Curriculum Development & Evaluation Centre & NSQF Cell, PSSCIVE, Bhopal, Dr. Ramesh Ch. Sharma, Associate Professor, School of Global Studies, AUD

Moderator: Mr. Akha Kaihrii Mao



Prof. MM Pant reiterated that teachers are lifelong learners. Embracing the new normal, we need to create a spirit of unlearning and relearning in learners. Post COVID world will be different but one needs to improvise and innovate the ways in which we plan to teach and work. Citing the example of how Olay- a cosmetic brand used an innovate way to provide the facility to their potent costumers to take screen shots of their face which helped them increase their revenue by 100 percent. Prof. Pant suggested that we must create professionals who are general problems solvers. He also invited scholarship for creating programs in cyber security that will have a lot of demand in the coming days. Prof. Pant concluded by saying that one doesn't have to look for the best practices but for the next practices. Thus, create right people with ethics and trustworthiness who will be more than mere technician but with the ability for critical thinking and industry will ask them from you.

Prof. Neela Dabir echoed with Prof. Pant and stated that post COVID institutions will have to create new courses, many new roles and job opportunities for students. And in order to gear up for this altered world, we need major brainstorming on the courses and alter them to suit the changed needs. We also have to develop them quickly and offer them to the students so that they can be employed in their new job roles. We also have to contemplate about the technology use and decide which platform is best suited for them. Further, we also have to take into account that student connectivity is important including those in rural areas. As these challenges are huge, Prof. Dabir hoped that the government as well as the industries would step in to provide support to the Universities in the future.

Prof Vinay S. Mehrotra addressed the challenges witnessed in e-learning. He urged us to look at the possible solutions for the issues. One of the ways that he suggested was to look for online resources such as E-Skill India that has repository for teachers and students. He recommended Lab-tech for students in the STEAM field. Addressing the digital divide in the country that makes it difficult for Universities to implement augmented and virtual technologies, Prof. Mehrotra urged to move to mass media such as television which is more accessible to students. He proposed to print time tables in newspapers for easy access to students. He also emphasised the need to reorient the assessments as per the changing needs and suggested making electronic portfolios. Since, these times may be distressful for students, he suggested that teachers can use different pedagogy such as playing games, tell them stories and be in touch with students to help them cope and maintain attentiveness. He also pointed out the need to maintain the quality of digital resources and also explore means and ways of bridging the digital divides among students from diverse social background and find ways of reaching the unreached for a sustainable and equitable opportunity. He concluded by saying that we need to come up on robust guidelines on reopening of Universities.

Dr. Ramesh Ch Sharma centred his talk around the learning design which is determinant while thinking about the E-learning systems. He spoke about the competencies needed to handle technology. Thereafter, he stated that teachers' perceptions are important to integrate technology and so they need to play critical role and become agent of change. The vocational teachers need to learn how to use technologies and transfer such competencies to their students. He concluded his talk by urging teachers to explore different apps and online channels and decide what suits them and their learners best.

The webinar ended with a vote of thanks from Mr. Nikhil Singh Charak, Assistant Professor, School of Vocational Studies.

Annexure



DR B R AMBEDKAR UNIVERSITY DELHI
SCHOOL OF VOCATIONAL STUDIES

INVITES YOU TO
WEBINAR

DIGITAL TECHNOLOGY FOR TVET: POSSIBILITIES & CHALLENGES



Prof Anu Singh Lather
Vice Chancellor, AUD



Prof M M Pant
Former Pro-Vice Chancellor, IGNOU



Dr. Nitin Malik
Registrar, AUD



Prof Neela Dabir
Dean, SVE, TISS, Mumbai



Prof Parikshat S Manhas
University of Jammu



Prof Mukti Mishra
Centurion University, Odisha



Lawrence Fernandes
Retailers Association of India



Prof S S Jena
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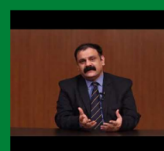
Prof Rajesh Khambayat
PSSCIVE, Bhopal



Dr Sanjaya Mishra
Commonwealth of Learning



Venkatesh Sarvasiddhi
National Skill Development Corporation



Prof Vinay Swarup Mehrotra
PSSCIVE, Bhopal



Dr Ramesh C Sharma
AUD



Developing strategies for innovative practices using digital
technologies as an alternative pedagogical process for
vocational and skill development programmes in India

MAY 29, 2020

11 AM - 2:30 PM

<https://aud.ac.in/>

Programme Schedule

Time	Session Titles	Resource Person(s)
11.00 - 11.05	Welcome & Introduction to the Webinar	Prof. Sitansu S. Jena Dean, SVS, AUD
11.05 -11.15	Address by the VC, AUD	Prof. Anu Singh Lather, VC, AUD
11.15 -12.00	Technical Session-1: Understanding perspectives of using digital technologies for TVET.	Prof. M.M.Pant, Technology Expert, & Former PVC, IGNOU Dr. Sanjaya Mishra, COL Vancouver, Canada Prof. Sitansu S. Jena (Moderator)
12.00 -12.45	Technical Session-2: Synchronous learning using digital platforms from the practitioner's experience for vocational and skill development programmes.	Prof. Neela Dabir, Dean, SVE TISS, Mumbai Prof. Rajesh P. Khambayat, JD, PSSCIVE, Bhopal Dr. Ramesh Ch. Sharma (Moderator)
12.45 – 13.30	Panel Discussion on “Using digital tools for hands-on experiences- the stakeholders’ perspectives”	Prof. (Dr.) Mukti Mishra, Fonder & President, Centurion University, Bhubaneswar Prof. Parikshat S. Manhas, University of Jammu Sh. Lawrence Fernandes, RAI Sh. Venkatesh Sarvasiddhi, NSDC Dr. Nitin Malik (Moderator)
13.30 – 14..25	Technical Session-3: Challenges in using digital technology for vocational education and skill development Open Session	Prof. M.M.Pant Prof. Neela Dabir Prof. Vinay S. Mehrotra, PSSCIVE, Bhopal Dr. Ramesh Ch. Sharma Sh. Akha K. Mao (Moderator)
14.25 -14.30	Consolidation & Vote of thanks	Sh. Nikhil. S. Charak, SVS