

Workshop on 360 Virtual Reality (VR) Educator

Organised by: Commonwealth Educational Media Centre for Asia (CEMCA), New Delhi

The concept of virtual reality (VR) has been known since the 1960's. However, with new technology inventions, VR has expanded its variety and scope. VR learning experiences are engaging, and it allow learners to immerse themselves in content beyond what is possible in the real world. 360° VR is an immersive video content, allowing users to look around in all directions, and give them the opportunity to control what they want to see. Presenting learning content through 360-degree spherical images or videos is not only more realistic than 3D animations but reduces the cost and time of developing the VR content. More importantly, the production of 360° VR content does not require high-tech capabilities, implying that most school/university teachers can develop the learning content on their own. With proper learning design, VR can aid students develop more complex and higher order thinking skills. 360° VR solves the problems of using conventional 3D graphic-based VR, which is highly technical and is expensive in terms of both time and money.

With this background, CEMCA developed an interactive online platform to create 360-degree VR experiences which can then be consumed by the target learners. The platform allows opportunities to experience 360-degree images with superimposed text, audio, videos, and pictures.

Objectives of the workshop:

At the end of the workshop, the participants will be able to:

1. Use effectively the flexible and portable VR education system that can be accessed through various devices.
2. Create 360-degree learning content and share it with their students.
3. Implement various game elements to enhance the learning experience.
4. Teach learners to download and engage through the learning contents.

Participants: The workshop will be attended by the 30-40 PCF10 participants using their own computer/mobile phone.

Duration: 1-hour workshop during the main conference.

Resource Person: The workshop will be conducted by the CEMCA consultant from Indian Institute of Technology (IIT), Kharagpur, India and CEMCA official.

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Brief Bio of Resource Person:

Dr. Kaushal Kumar Bhagat is currently working as an assistant professor in the Advanced Technology Development Centre at the Indian Institute of Technology (IIT), Kharagpur, India. He received his Ph.D. from the National Taiwan Normal University in September 2016. He then served a two-year postdoctoral position at the Smart Learning Institute at Beijing Normal University. He has published several referred journal articles and book chapters. In 2015, Dr. Bhagat received NTNU International Outstanding Achievement Award. He was also awarded the 2017 IEEE TCLT Young Researcher award. In 2020, he received APSCE Early Career Researcher Award (ECRA) from the Asia-Pacific Society for Computers in Education. He is an associate editor of the British Journal of Educational Technology and editor-in-chief of Contemporary Educational Technology. He is also an editorial board member of several reputed international journals. He is a consultant for the Commonwealth of Learning, Canada. His research area of interest includes online learning, augmented reality, virtual reality, flipped classroom, formative assessment, and technology-enhanced learning.