DCVMN Training workshop on Supply Chain Management

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Virtual Reality Training

What is Virtual Reality (VR)?

- VR is the use of computer technology to create a simulated, three-dimensional environment which tries to mimic real world to give an immersive visual experiences.
- Standard VR systems generate realistic images, sounds and other sensations that simulate a user's physical presence in a virtual 3D environment.
- Applications of VR can include entertainment (i.e. gaming) and educational purposes (i.e. medical or military training).
- A person using virtual reality equipment is able to look around the artificial world, move around in it, and interact with virtual features or items.



* Image at Oculus Quest

Where VR is used?

- Healthcare/Surgery
- Aeronautic and Space
- Laboratory
- Etc.

Image at

- <u>https://www.forbes.com/sites/solrogers/2019/09/06/the-best-vr-experiences-on-oculus-</u> <u>quest-right-now/</u>
- https://www.nasa.gov/centers/johnson/partnerships/eddc/ra/virtual-reality-laboratory
- <u>https://www.engineering.com/3DPrinting/3DPrintingArticles/ArticleID/14190/3D-</u> Systems-Medical-Goes-Virtual-with-VR-OR-Surgical-Training.aspx
- https://www.eonreality.com/portfolio-items/virtual-reality-laboratory-training/



Why VR training?

Immersive handson learning

- Experiential learning (learning-bydoing)
- Experience in more dynamic representations of reality

Easy access

 The VR training can be easily accessed wherever you are and whenever you want using VR headset

Realistic scenarios

 You can think, see and test your ideas and knowledge immediately in VR

Safe & controlled exercises

- Reduces the risk linked to errors in a real-life situation
- Repetition of exercises will help you gain more confidence





Our members

Develops the software (with inputs from the members)



Purchase the VR device



Train new and existing employees (during onboarding or refresh exercises)

Oculus Quest

- VR headset + two touch controllers
- User friendly device: no PC, no wires
- Realistic movement: room-scale tracking & built-in audio

* Oculus Quest Features at https://www.oculus.com/quest/features/



First pilot scenario: Spill Incident

- Context: This is a pilot demo where you have to take a series of actions in the event of a spill incident in a laboratory
- Follow below emergency procedure that should be followed for such incident and take your actions through the VR device.
- You will be asked to perform routine laboratory operations:
 - 1) Put hose in place
 - 2) Close the ring
 - 3) Activate the machine (press the green button)
- Then a spill incident occurs (the liquid leaks) and you will be asked to perform an emergency procedure:
 - 1) Put the mask on
 - 2) Press the alarm
 - 3) Stop the machine (press the red button)
 - 4) Switch off air circulation
 - 5) Cover the liquid with the towel



First pilot scenario: Spill Incident



Your experience & inputs

- Try our demo during the coffee breaks or at lunch times and let us know your thoughts.
- Your comments and feedbacks are very important to improve our software and thank you in advance for your support.
- > Also share your thoughts on potential future scenarios.



Q&A

Any further questions & suggestions Ms. Eun Joo (EJ) HUR at <u>e.hur@dcvmn.net</u>