Igloovision’s virtual cylinder and Sensoryx’s digital gloves

- FIIF seminar 11.11.2021
- Mika Nikander (Industrial Engineering)

Tampereen ammattikorkeakoulu
Tampere University of Applied Sciences

TAMK is
the second biggest UAS in Finland

approx 10 000 students
over 40 degree programmes
approx 700 employees

Strategic focus areas

We have outstanding expertise in our five chosen focus areas and collaborate closely with working life in all these fields.

- Energy-efficient and healthy built environments
- Developmental expertise in pedagogy
- New operational models for health care and social services
- Entrepreneurship and innovative business
- Intelligent machines and smart devices

TAMK is joining forces with Tampere University. Together these will constitute Finland's most diverse higher education and research community.

Tampere Universities

Tampere University
Tampere University of Applied Sciences

more than 30,000 students

nearly 5,000 employees

Tampere Universities

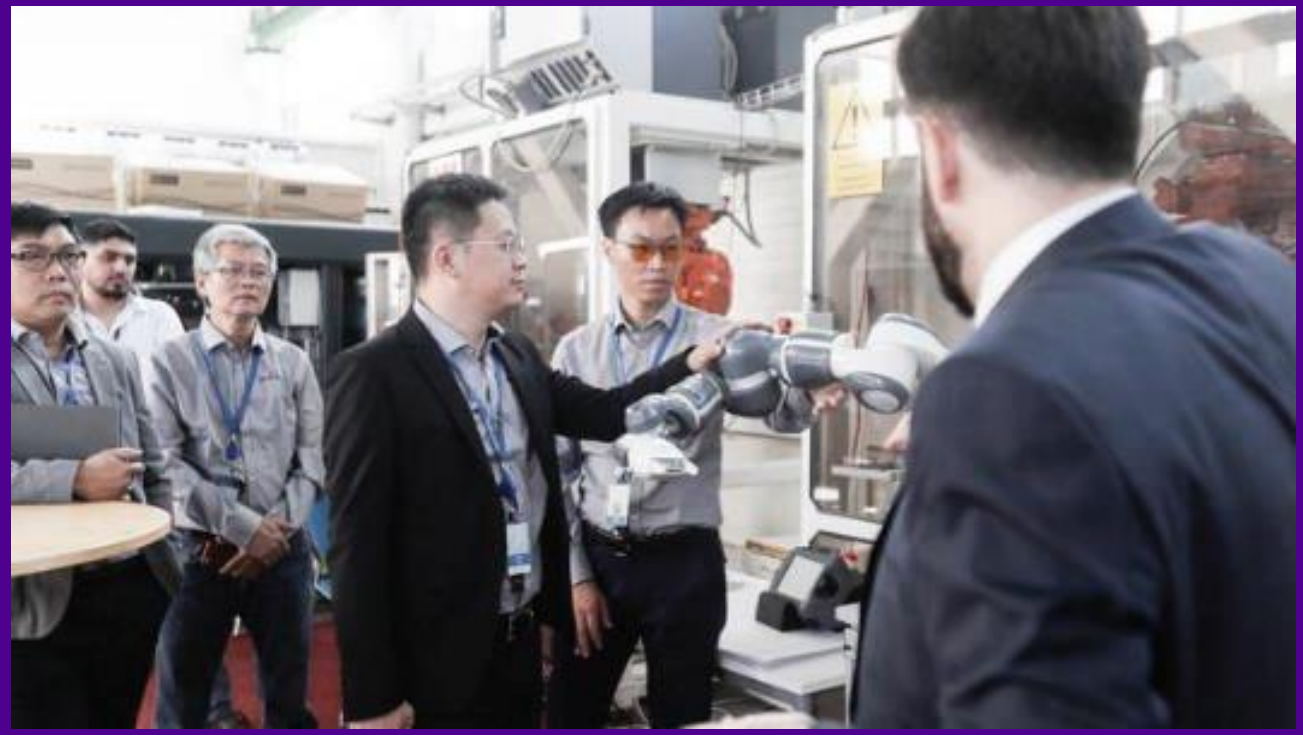
is a dynamic community of over

35,000 members!

tuni.fi/en

Co-operation with business life

- Advisory Boards for study programmes
- Practical training periods for students
- Thesis and project work
- Research, development and innovation projects



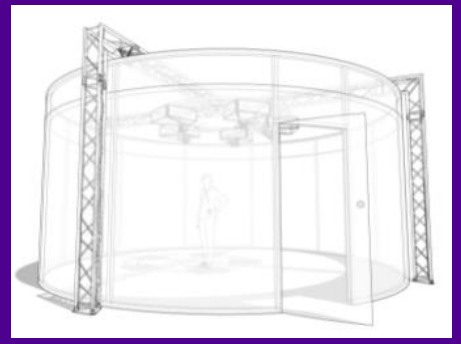
Virtual Lab for Social and Health Care

Igloovision's immersive space in TAMK

Igloo Vision Immersive 360 Cylinder which enables a shared 360 experience for up to 10 people at a time.

The cylinder comprises five full HD 3000-lumen projectors

https://vimeo.com/507598329



Virtual Lab for Social and Health Care

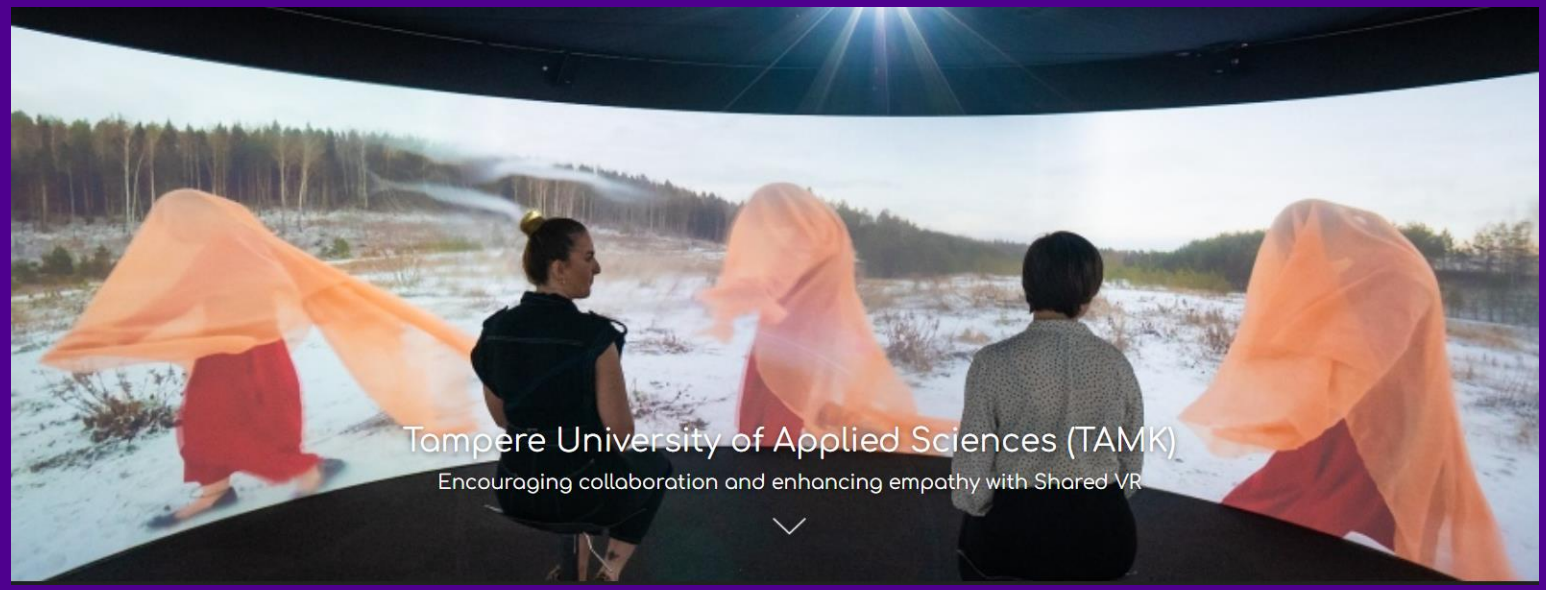
Our services for companies

- pretesting at standardized Lab environment
- testing and product development in authentic environments, Living Labs
- references and pilot study cases
- pop-up space, showroom for technologies

This lab serves as an innovated co-creation platform for technology companies, service providers and TAMK students

https://www.igloovision.com/case-studies/tamk-university

To get started with using the cylinder, students from TAMK's Fine Art course created 360° videos to convey important stories and help others to understand difficult concepts, thus enhancing empathy



Teini Piibemaa, a student who created one of the videos, said "I know that with VR glasses I tend to get anxiety and motion sickness immediately which also makes it harder to recover after removing the glasses, so the cylinder can be a gentler option for people with the same issues. The cylinder also acts as a uniting piece, since you experience this with other people in the room. VR glasses place you into another reality where you don't see the people who physically share your space."

Sensoryx's VRFree Glove System

TAMK's setup:

VRFREE GLOVE SYSTEM – BUSINESS VERSION

VRFREE OBJECT TRACKER – SINGLE DIRECTIONAL

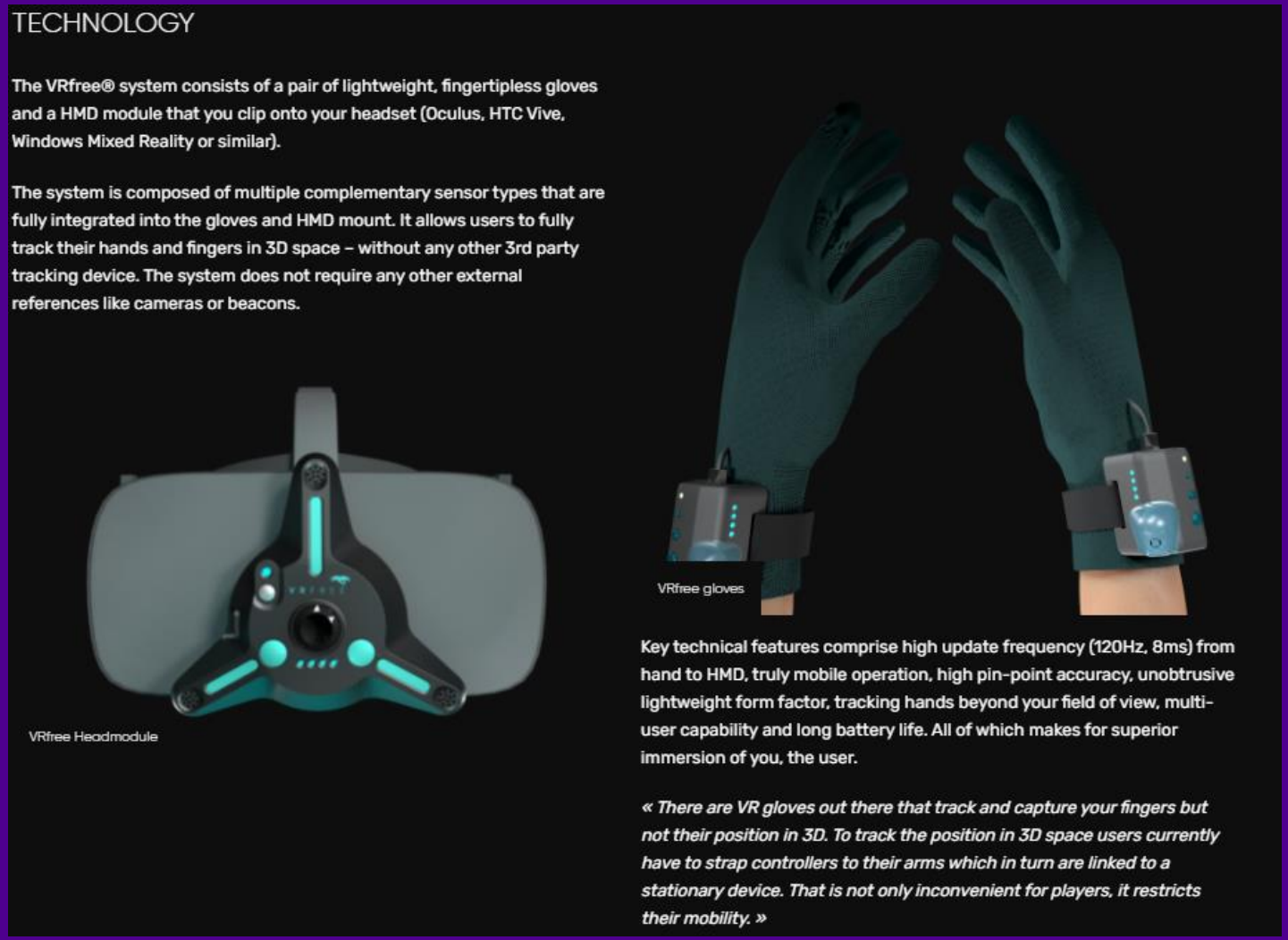
VRFREE OBJECT TRACKER – OMNI DIRECTIONAL

VRFREE 3D STYLUS (Advanced prototype)

Truly mobile, no stationary external references required

(Oculus Rift/Quest, HTC Vive/Pro/Focus, Valve Index, HP Reverb, WMR, Samsung Odyssey, Pimax etc)

3D tracking for the Anyverse and the real world - YouTube



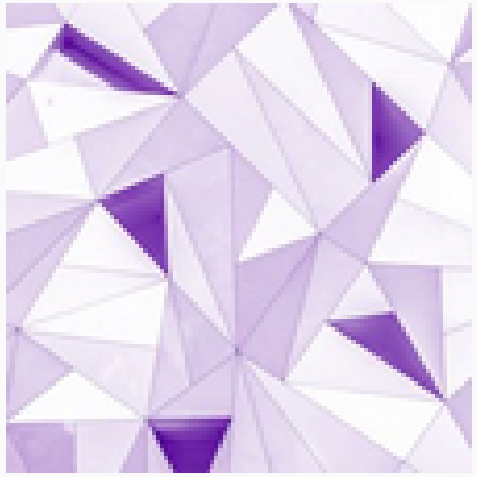
Implementation ideas

Training demos for the health care and industrial engineering made with game engines for Vive Pro2/Focus 3, Quest2, Varjo and Igloovision’s virtual cylinder

Training Demo Videos - VRfree® glove - intuitive VR interaction (sensoryx.com)

Q&A

Person



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