

Hanse-Wissenschaftskolleg
Institute for Advanced Study

Study Group

„Intelligent Virtual Environments for Surgical Training“

Delmenhorst, June 20, 2022

Organizers:

Prof. Dr. Peter Haddawy,
Mahidol-Bremen Medical Informatics Research Unit

Venue:

Hanse-Wissenschaftskolleg
Institute for Advanced Study
Lemkuhlenbusch 4
27753 Delmenhorst
Germany
www.h-w-k.de

Program

Monday, June 20, 2022

9:30 – 11:00

Welcome & Overview (15 min), 3 talks (20 + 5 each)

- *Mores Prachyabrued*
Virtual Training in Needle Insertion during Internal Jugular Vein Catheterization (online)
- *Narumol Vannaprathip*
Intelligent Tutoring for Surgical Decision Making
- *Mihai Pomarlan*
Integrating parsing and reasoning to construct an ontology of causal relations for Dentistry

11:00 – 11:15

COFFEE BREAK

11:15 – 13:00

4 talks (20 + 5 each)

- *Falko Schmid*
The Digital Health Lab Düsseldorf: Current Research Activities in Developing Clinical Assistance Systems with AI, Wearables and Mixed Reality
- *Esther Christine Maier & Veysel Ödemis*
Circuit Training Anatomy & Clinical Anatomical Digital Training Module
- *Janniko Georgiadis*
Enatom and UMCG Anatomy Gym projects
- *Tim Ziemer*
Operating by ear – Sonification Guided Surgery

13:00 – 14:30

LUNCH + PHOTO

14:30 – 15:45

3 talks (20 + 5 each)

- *Paphon Sa-ngasoongsong*
AI Applications in Orthopedics
- *Benedikt Hosp*
Eye tracking in Arthroscopic Surgery
- *Gabriel Zachmann*
Virtual Reality Supporting Surgeons in the OR

15:45 – 17:30

COFFEE BREAK & DEMOS

- *Gabriel Zachmann/Maximillian Kaluschke*
Immersive VR dental training simulator
- *Tim Ziemer* - Sonification Guided Surgery
- *MU students* – Arthroscopic shoulder surgery Simulator
- *MU students* – Vascular access simulator
- *MU & UB students* – Hololens virtual anatomy
- *Anja Bräuer & Veysel Ödemis* - Clinical Anatomical Digital Training Module
- *Falko Schmid* – demos+posters

17:30 – 18:30

Discussion, steps forward

18:30 – 20:00

DINNER