MRI DC Meeting 3.9.2024 Kone Tytyri mine shaft

16:00 - 18:25

Attendees:

Antti Pietiläinen (Chairman) Petri Kärhä (Secretary) Meelis-Mait Sildoja Aschan Robin Sharma Sucheta Manoocheri Farshid Petri Kärhä Ikonen Erkki Dmitri Laneski Korpusenko Mikhail Seppä Jeremias Högström Richard Jussi Havunen Alexander Kokka Janne Askola Priit Jaanson Mikko Merimaa Maksim Shpak Antti Lamminpää Timo Dönsberg Ville Voipio

Opening

The evening, hosted by Kone high-rise elevator test laboratory in Tytyri, started with a tour down to the Tytyri mine. Kone has there 11 elevator shafts with a combined length of 1.7 km, the longest ones reaching the depth of 350 m. The depth of the shafts means KONE can test elevator speeds of up to 19 m/s and free-fall tests up to 26 m/s.

After the excursion Mikko Puranen gave a presentation on his work with elevator that have wireless control instead of the traditional cable. He has worked on the subject since 2007 and now there is finally the first commercial installation, 10 wireless elevators in a cruise ship.

Round the table discussion

The evening continued with the regular round the table presentations on what people have recently been doing.

Robin Aschan is a new member to the club, graduated in July 2024. The work was related to goniometric measurements. Title of his thesis was *Investigations and Applications of Angle-Resolved Measurements of Spectral Reflectance and Transmittance*. He is still working at MRI.

Sucheta Sharma is a new member to the club, graduated in October 2023. The work was related with acousto-optical detector and involved COMSOL simulations. Title of her thesis was *Applications of Interferometric Measurements and Photoacoustic Detection in Optical Metrology*. The work was collaboration with our club members Tuomas Hieta of Gasera and Markku Vainio of Helsinki University. Sucheta is still working at MRI.

Mikhail Korpusenko is a new member to the club, graduated in September 2023. The work was related with PQEDs, Predictable Quantum Efficient Detectors. Title of his thesis was *Characterization of room-temperature primary optical standard in visible and ultraviolet spectral ranges*. He is still working at MRI.

Dmitri Lanevsky is a new member to the club, graduated in October 2022. The work was related with goniometers. Title of his thesis was *Measurement, reporting and applications of bidirectional reflectance distribution function*. Dmitri works with Estonian company Light Code developing Lidars.

Jussi Havunen is a new member to the club, graduated in November 2023. The work was related with High voltage measurements. Title of his thesis was *Application of Signal Processing Methods for Precision Impulse Voltage and Partial Discharge Measurements*. Jussi works with ABB Drives.

Janne Askola worked with Vaisala Weather and Environment, but was recently head hunted to Berggren Oy, a patent company, and works there as a patent agent.

Jeremias Seppä works at VTT MIKES in the length group doing spectroscopy. Collects rocks, e.g. refines uranium as a hobby.

Meelis Sildoja lives in Estonia and works for two places, Metrosert and the Institute of Chemical Physics and Biophysics.

Mikko Merimaa works as general secretary of the Euramet.

Priit Jaanson works at J3 group with hyper spectral lasers and lidars.

Alexander Kokka works at VTT with hyperspectral cameras. Also with Hehkulab. Now on paternal leave.

Maksim Shpak works with the mixed reality project of Microsoft as principal optical engineer.

Antti Pietiläinen works at Nokia, as a principal architect, between baseband and radio parts. Has an Audi A6 that he has driven for astonishing 300 000 kilometers.

Mikko Puranen is working at the High-Rise competence center of Kone.

Rikhard Högström leads the group of Process Metrology at VTT-Mikes. The group is developing new methods for calibrating sensors for changing and dynamic conditions. One hot topic is the uncertainty of AI based models.

Antti Lamminpää works at PWC as operations consultant. Senior expert in Digital transformation office.

Ville Voipio works as the chair of board of Vaisala. He is active in various startups, and a professor of practice at Turku University.

Timo Dönsberg is now leading the group Optical Spectroscopy at VTT-Mikes.

Petri Kärhä works with Mikes-Aalto as a Principal University Lecturer. Has been catching up with works accumulated during half a year on sabbatical since summer 2023. Has one new car, a 1932 Ford model B Hot Rod.

Farshid Manoocheri works with Mikes-Aalto as a staff scientist. Recently started coordinating a new project funded by Euramet for years 2024 – 2027 on transmittance and absorbance of liquid filters.

Erkki Ikonen works with Aalto and VTT-Mikes. MRI is now in department of EEA (Electronics, Electrical and Automation). Erkki still works in Aalto until 2027 after which he retires. There is a starting professorship call to replace him. Joint professorship between VTT and Aalto. Process seems extremely slow. Members of the MRI DC club are encouraged to apply when the call opens.

Next meeting

Place of the next meeting could be ABB as Plan A and VTT-Mikes as Plan B.

Closing and conclusions

The meeting ended at around 18:25 and continued with dinner kindly sponsored by Kone in the Indian restaurant Amar.

Petri KärhäAntti PietiläinenSecretaryChairman

A couple of pictures taken by Antti Pietiläinen follow.



