

A portrait of Prof. dr. Misha Luyer, a middle-aged man with short, light-colored hair, smiling. He is wearing a light-colored blazer over a white shirt. The background is blurred.

Prof.dr. Misha Luyer
April 5, 2024

INAUGURAL LECTURE

Voorsprong door techniek

TU/e

**EINDHOVEN
UNIVERSITY OF
TECHNOLOGY**

DEPARTMENT OF ELECTRICAL ENGINEERING

INVITATION

Prof.dr. Misha Luyer was appointed part-time professor of Health Technology in Oncological Surgery at the Department of Electrical Engineering at Eindhoven University of Technology (TU/e) on May 1, 2023. He will deliver his inaugural lecture on April 5, 2024.

The Executive Board of Eindhoven University of Technology cordially invites you to attend the inaugural lecture of Prof.dr. Misha Luyer on **Friday, April 5, 2024, at 4.00 PM**.

The public lecture will be delivered in the Blauwe Zaal of the Auditorium. You do not need to register.

The title of the lecture is

'Voorsprong door techniek'

After the lecture, drinks will be served in the Senaatszaal.

All professors are invited to join in the cortège. If you would like to participate, please register in advance with the Office of Doctoral Presentations and Academic Ceremonies, phone +31 (0)40 247 37 42, email penp@tue.nl.



Prof.dr. Silvia Lenaerts

Rector Magnificus

After April 5, 2024, the text of the inaugural lecture will be available online at www.tue.nl/lectures.

After completing Medical School at the Radboud University Nijmegen, Misha Luyer undertook a PhD program at Maastricht University. In 2005, he combined the PhD program with surgical training (AGIKO) and graduated in 2006 with a thesis on "The nutritional reflex; influencing gut barrier function and inflammation". After finishing his surgical training, he started as a fellow at the Catharina Hospital Eindhoven in 2010 and became a consultant there in 2012. His research focuses on the improvement of care in complex surgery ranging from prehabilitation and minimal invasive surgery to fast-track recovery protocols with a special focus on Upper GI and pancreatic surgery. As such he has conducted and participated in several trials, acquired grants, and has mentored several PhD graduates. As part of the Eindhoven Medtech Innovation Center (E/MTIC) he was appointed as a research associate in the Department of Electrical Engineering at TU/e in 2021. He has published more than 250 articles, contributed to several book chapters and is listed on several patent applications.

About the lecture

Technological advances play an important role in improving patient outcomes after complex oncological surgery. In the coming decades it is expected that the introduction of new innovations such as Artificial Intelligence (AI) and neuromodulation will change current surgical practice. However, although technological possibilities are increasing rapidly, it is essential that clinicians overseeing clinically relevant problems keep in close communication with engineers. Close collaboration ensures a targeted approach and maximizes the utilization of emerging potentials. Besides the direct application of technology to improve diagnosis, aid surgery or enhance recovery, it also facilitates targeted training to reduce the learning curve, expands expertise, and offers solutions to capacity constraints within the healthcare system. Marginal gains across various facets of the perioperative care pathway can have substantial overall effects and will ultimately progress surgical care for patients undergoing complex oncological surgery. In this lecture, Misha Luyer will share the findings of his research and discuss the future potential of emerging technologies that can be used to improve perioperative care.

Visiting address Auditorium, Building 1, Groene Loper, Eindhoven

Navigation address De Zaal, Eindhoven, www.tue.nl/map