



Presse-Information Press release

# Robotic magnetic flexible endoscopy: KUKA presents Innovation Award 2019 to international research team

Augsburg/Duesseldorf, 20 November 2019 – The winner of the KUKA Innovation Award 2019 have been announced: a research team from the Universities of Leeds, Vanderbilt and Turin convinced the jury with their concept for robotic magnetic flexible endoscope for painless colorectal cancer screening, surveillance and intervention. The innovation prize is worth 20,000 euros.

"It was an exciting competition with excellent projects. In the end, the jury opted for a concept that offers patients particularly great advantages and can even save lives. We see great potential in this innovative idea ", says Dr. Rainer Bischoff, Vice President KUKA Corporate Research at the award ceremony at the medical technology trade fair MEDICA in Duesseldorf.

# Painless colorectal cancer screening, surveillance and intervention with robotic assistance

The colonoscopy is a common procedure to detect bowel cancer in its early stages. This procedure offers major advantages. Nevertheless, the current technology also has disadvantages such as the risk of perforation, pain and high costs.

As an alternative, Team RoboFORCE with researchers from the universities of Leeds, Vanderbilt and Turin are developing a robot platform using a magnetic capsule which navigates through the bowels thanks to magnetic coupling with an external magnet mounted on an LBR Med.

Robotic talents from all over the world had previously applied with their ideas on the subject of "Healthy Living". An international jury selected the five best concepts. The final teams presented their concepts to a broad specialist audience at MEDICA 2019, the largest medical technology trade fair.

## KUKA Aktiengesellschaft

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### **About the KUKA Innovation Award**

In 2014, automation specialist KUKA launched the annual competition to promote innovation. This year, new terrain was explored: the applicants were encouraged to develop an innovative concept with KUKA hardware for use in hospitals and rehabilitation centers.

To implement their concepts, KUKA provides a KUKA lightweight robot and a 3D vision system from Roboception free of charge to the selected finalists throughout the competition period. This year, it is possible for the first time to use the LBR Med, the medical version of the sensitive lightweight robot LBR iiwa. The LBR Med is the first robotic component worldwide to be certified for integration into medical products. In addition, the final teams will receive free training for the hardware as well as coaching by KUKA experts during the whole competition.

The upcoming Innovation Award will also deal with the topic medical robotics. Research teams from all over the world can now apply for the KUKA Innovation Award 2020.

# **KUKA**

KUKA is a global automation corporation with sales of around EUR 3.2 billion and around 14,200 employees. As a leading global supplier of intelligent automation solutions KUKA offers its customers everything from a single source: from robots and cells to fully automated systems and their networking in markets such as automotive, electronics, general industry, consumer goods, ecommerce/retail and healthcare. The KUKA Group is headquartered in Augsburg, Germany. (31.12.2018)