

Indian and Korean institutions join hands to develop training system for robot assisted surgeries

L&T Technology Services, Bengaluru along with PSG College of Technology and PSG Institute of Medical Science and Research, Coimbatore & Korea Advanced Institute of Science and Technology (Kaist), Republic of Korea (Rok) has developed a real time training system for robot assisted surgeries. It includes a novel sensor designed to enable haptic feedback.

The technology can be an efficient, user –friendly, affordable, real time training system for robot assisted surgeries. The prototype has been developed and costs around Rs 20 Lakhs as against Rs 12 crore for the imported alternative.

The development has been under the bilateral industrial R&D Programmes supported by Global Innovation & Technology Alliance (GITA). Global Innovation and Technology Alliance (GITA) is a Public Private Partnership between Technology Development Board (TDB) of the Department of Science & Technology (DST) and Confederation of Indian Industry (CII). The Project was undertaken as a part of the India-Republic of Korea Joint Applied R&D Programme.

As Robotic surgery is revolutionizing treatment by providing minimally-invasive and yet, precise, stable and dexterous functionality to surgeons, especially in the case of neurosurgery, the training is critical and virtual simulations are less accurate than actual robotic training systems. This robotic endotrainer will facilitate more widespread training of surgeons using robotic systems leading to improved patient outcomes.

The robotic endotrainer is in alignment with various National Missions namely Make In India, Health for all, Digital India, Inter- disciplinary Cyber Physical Systems and Skill India and also in tune with India's aim of achieving the Sustainable Development Goals -- Good Health and Well Being and Industry, Innovation and Infrastructure.



