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Press Release

Humanoid robotics: Schaeffler strengthens innovation partnership with NTU in Singapore

SINGAPORE, *2025-11-28*.

- Schaeffler and the Nanyang Technological University (NTU) in Singapore bolster their partnership by opening a new laboratory for robotics and artificial intelligence
- Another milestone for Schaeffler as it strives to become a preferred technology partner in the humanoid robotics segment
- From laboratory to practice: partnership amplifies global development expertise in humanoid robotics

Schaeffler and the Nanyang Technological University (NTU) in Singapore have further consolidated their existing partnership. A new 900 sqm. laboratory will be dedicated primarily to the advancement of technologies for robotics and artificial intelligence. Humanoid robotics is a key growth area where Schaeffler can leverage its expertise as both a user and supplier of innovative components. The company recently announced partnerships with major humanoid manufacturers that also include contracts to supply components. In addition, Schaeffler is going to integrate a significant number of humanoids into its worldwide production facilities. The collaboration with leading research establishments supports the Motion Technology Company in its endeavors to become a preferred technology partner for humanoid robotics. The NTU is part of the SHARE Program (Schaeffler Hub for Advanced Research), a core element of Schaeffler's innovation strategy. The on-campus concept creates an international network with leading universities.

As Uwe Wagner, Chief Technology Officer of Schaeffler AG, says: “Schaeffler exemplifies the highest standard of innovation and is reinforcing this expertise specifically in the future growth segments of humanoid robotics and artificial intelligence. The opening of the laboratory at the NTU marks another important milestone in our longstanding and successful partnership. Thanks to our close collaboration with leading research scientists, we are accelerating the development of disruptive technologies to series readiness and in doing so are creating added value with an impact beyond the region.”

From laboratory to practice: Research knowledge transfer for innovative products

Together with scientists and students from the university, Schaeffler is also conducting research into collaborative robotics and automated mobile robot

platforms. As a result, the new development center not only underpins Schaeffler's reputation as an innovator but also facilitates interdisciplinary research at the NTU. The company is leveraging its alliances with scientific establishments and industrial partners to effectively connect research and industry. This close collaboration enables innovative ideas to be transformed into marketable technologies quickly and practically – and in this way actively helps to shape the future of robotics.

Schaeffler as a technology partner for humanoid robotics

Humanoid robotics is one of the most promising technologies for the industrial production of the future. Schaeffler is actively helping to shape the development of these disruptive technologies as a user and supplier of robotic components across the entire supply value creation chain. Based on its decades of expertise and wide range of key technologies, including linear and rotary drives, bearings, sensors, and intelligent actuator systems, the company is able to transplant scalable solutions from the automotive and industrial sectors into the field of humanoid robotics. Planetary gear actuators are one such example. Originally developed for electric mobility, these actuators are used, for example, in the shoulders and hips of humanoid robots.

Maximilian Fiedler, Regional CEO Asia/Pacific (acting) of Schaeffler AG says: "We are excited to elevate our longstanding partnership with Nanyang Technological University (NTU) to new heights. This collaboration has been a cornerstone of our innovation efforts, and together we are pushing the boundaries of what's possible in robotics and advanced innovation. By combining Schaeffler's deep industry experience with NTU's cutting-edge research and academic excellence, we are creating a powerful partnership. As a leader in motion technology, Schaeffler is proud to be part of Singapore's vibrant ecosystem, which continues to set the pace for technological advancement. Singapore's reputation as a global hub for innovation, combined with its rich pool of talents, provides an ideal environment for this collaboration to thrive. We look forward to this next chapter, confident that together we will continue to lead and inspire innovation in this rapidly evolving field."

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Schaeffler Group – We pioneer motion: The Schaeffler Group has been driving forward groundbreaking inventions and developments in the field of motion technology for 80 years. With innovative technologies, products, and services for electric mobility, chassis solutions, and renewable energies, the company is a reliable partner for making motion more efficient, intelligent, and sustainable – over the entire life cycle. Schaeffler describes its comprehensive range of products and services by means of eight product families: from bearing solutions and all types of linear guidance systems through to repair and monitoring services. With around 110,000 employees and more than 250 locations in 55 countries, Schaeffler is one of the world's largest family-owned companies and ranks among Germany's most innovative companies.

(from left) Maximilian Fiedler, Regional CEO Asia/Pacific (Schaeffler), Uwe Wagner, Chief Technology Officer (Schaeffler), Dr. Tan See Leng, Minister for Manpower

and Minister-in-charge of Energy and Science & Technology (Ministry of Trade and Industry, Singapore), Prof. Lam Khin Yong, Vice President (Industry) (NTU), Prof. Christian Wolfrum, Deputy President and Provost (NTU) opened the new laboratory for robotics and artificial intelligence. Photo: Schaeffler

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Schaeffler is integrating humanoids into its own production facilities and supplies key components such as innovative actuators. Photo: Schaeffler

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