Towards more energy efficient homes and smart grids

Caption: NTU Singapore and LITEON in collaboration to develop innovative technologies for homes and the power grid. (Clockwise from top left) NTU Singapore scientists Assoc Prof Xu Yan, Assoc Prof Tang Yi and Lead Principal Investigator Mr Nirupam S D; LITE-ON Singapore Ms Yang Jing, R&D Head Smart Grid, Core Competent Center, and Mr Srinivasan Lakshmanan, R&D Director, Optical Product Solutions

LITE-ON Singapore and NTU Singapore are collaborating to jointly develop advanced solutions for more efficient energy management for homes and the power grid.

The four-year partnership aims to develop new digital solutions such as new smart grid physical systems; a smart energy router for power grid support; a smart home energy management platform as well as a Data Fusion Software Platform that combines Artificial Intelligence and big data for use in smart home applications and power grids.

These solutions seek to address the industry demands for advanced technologies that can help to save energy and cost, improve the efficiency, flexibility and resilience of power grids, and to reduce Singapore’s carbon footprint.

LITE-ON Singapore is part of the LITE-ON Group, a public-listed global technology enterprise which was established in Taiwan in 1975. LITE-ON is a major player in the

electronics and optoelectronics manufacturing sector and has an annual revenue of some US$5.3 billion.

The research direction is in line with LITE-ON's global strategy to invest and provide new value to its business partners in the emerging industry mega trends: Optoelectronics, Cloud Computing, 5G and AIoT, EV Charging and Smart Grid technologies.

The collaboration will draw on NTU Singapore's expertise in digital and urban solutions and is also aligned with the University's sustainability efforts to build a more liveable future as outlined in its NTU 2025 strategic plan.