



## **JOINT NEWS RELEASE**

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### **LITE-ON Singapore and NTU Singapore to develop more power-efficient technologies for Smart Grids and Smart Homes**

**LITE-ON Singapore** and **Nanyang Technological University, Singapore (NTU Singapore)**, are collaborating to jointly develop advanced solutions for more efficient energy management for homes and the power grid.

An established technology enterprise, LITE-ON Singapore will be working with the **Energy Research Institute at NTU Singapore (ERI@N)** to address 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.

These digital solutions include 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.

The two parties have inked a four-year agreement to seal the partnership, which 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.

"As a world-leading provider in opto-semiconductor, power supply management and key electronic products and moving forward to become the solution provider of choice, we are delighted to partner with NTU Singapore on important technological development projects that are key to creating innovation that will help achieve sustainable urban solutions and enhance quality of life," said **Hai Huang, General Manager, LITE-ON Singapore**.

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.

“NTU Singapore’s partnership with LITE-ON to develop innovative technologies aims to bring wide-ranging benefits for tomorrow’s homes and societies. The University recently unveiled its 15-year Sustainability Manifesto which aspires to achieve carbon neutrality by 2035, and this collaboration is one of many partnerships that enables NTU to play a key role in building a more resilient and sustainable environment. It is also an example of the University’s continued push for translational research, by working closely with industry to ensure that our research outcomes can lead to significant commercial impact,” **said Professor Lam Khin Yong, Senior Vice President (Research), NTU Singapore.**

The four key projects arising from this partnership are:

1. Development of smart grid physical systems – high frequency bi-directional inverter and converter with Silicon Carbide (SiC) technology – that will withstand higher temperatures and increase energy efficiency and power density.
2. Creating a smart energy router to flexibly manage the power flow among renewable energy sources, energy storage and electric vehicles, making power grids smarter with energy intelligence. This will enable improved power quality and a reliable, cost-efficient, safe and sustainable grid operation.
3. Designing a smart home energy management platform for the consumer electricity market that leverages data to drive energy savings and carbon reduction.
4. Leveraging data fusion to share and visualize information comprehensively to accelerate the process of integrating technology across cross-disciplinary applications. This new Data Fusion Software Platform aims to meet the needs of an evolving range of unique global market pressures and challenges from decarbonization to digitalization and intelligence. Specifically, the platform aims to increase reliability, security and energy efficiency in homes and power grid operations, reduce operational costs and impact on the environment.

“Our collaboration with NTU Singapore is another important step towards designing technological solutions of the future and to provide the smart grid and smart home energy management infrastructure needed to advance a connected living, working, and entertainment space,” commented **Yang Jing, R&D Head Smart Grid, Core Competent Center, LITE-ON Singapore.**

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***About LITE-ON Singapore***

LITE-ON Singapore is part of LITEON Technology, a world-leading provider in opto-semiconductor, power supply management and key electronic products with global manufacturing facilities. In recent years, with its active deployment in the fields of cloud computing, automotive electronics, 5G, AIoT and optoelectronics, coupled with expansion of new business for smart life, LITEON continues to use its professionalism, rich industrial experience, flexible supply chain management with quick response and diverse worldwide operational centres, and has become the best partner of global customers for creating value, innovation, and application of smart technology.

LITE-ON Singapore engages in quality semiconductor research and design, assembly and packaging machinery, smart vehicle and automotive electronics design, OEM and ODM of power supplies and storage devices solutions to meet the demands of its regional customers.

LITEON produces products that are used in a broad range of applications, such as computers, communications, consumer electronics, automotive electronics, LED lighting, cloud computing and industrial automation.

For more information, visit <https://sg.liteon.com/>

***About Nanyang Technological University, Singapore***

A research-intensive public university, Nanyang Technological University, Singapore (NTU Singapore) has 33,000 undergraduate and postgraduate students in the Engineering, Business, Science, Humanities, Arts, & Social Sciences, and Graduate colleges. It also has a medical school, the Lee Kong Chian School of Medicine, established jointly with Imperial College London.

NTU is also home to world-renowned autonomous institutes – the National Institute of Education, S Rajaratnam School of International Studies, Earth Observatory of Singapore, and Singapore Centre for Environmental Life Sciences Engineering – and

various leading research centres such as the Nanyang Environment & Water Research Institute (NEWRI) and Energy Research Institute @ NTU (ERI@N).

Ranked amongst the world's top universities by QS, NTU has also been named the world's top young university for the last seven years. The University's main campus is frequently listed among the Top 15 most beautiful university campuses in the world and it has 57 Green Mark-certified (equivalent to LEED-certified) building projects, of which 95% are certified Green Mark Platinum. Apart from its main campus, NTU also has a campus in Singapore's healthcare district.

Under the NTU Smart Campus vision, the University harnesses the power of digital technology and tech-enabled solutions to support better learning and living experiences, the discovery of new knowledge, and the sustainability of resources.

For more information, visit [www.ntu.edu.sg](http://www.ntu.edu.sg)