



NEWS RELEASE

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SP Group embarking on S\$30 million in research and education initiatives with NTU Singapore

- S\$20 million set aside for a new joint lab and research programmes to develop solutions to enhance the resilience of national electricity grid
- S\$10 million contribution from SP Group to groom next-generation experts in energy sector

SP Group (SP) will be embarking on S\$30 million in research and education initiatives with **Nanyang Technological University, Singapore (NTU Singapore)**, to enhance the resilience of Singapore's electricity network, improve the reliability and efficiency of supply to consumers, and nurture experts for the energy sector.

The collaboration will see the establishment of the **SP Group-NTU Joint Laboratory** to explore energy-related projects in the areas of asset management and network operations. Located on the NTU Smart Campus, the new joint lab will house 60 researchers, 85 undergraduate and postgraduate students, and serve as a training platform for SP's engineers.

Through the joint lab, which SP is setting aside S\$20 million to fund, new research topics will be identified which will support SP's vision to develop solutions for the Energy Grid of the future.

In addition, SP is contributing S\$10 million to NTU to set up two endowment funds at the university to support and groom next-generation experts in Singapore's energy sector.

The **SP Group Professorship Fund** will support two outstanding faculty members in their research and scholarship. The **SP Group Presidential Postdoctoral Fellowship Fund** will boost early-career scientists' and engineers' research in energy and power systems. The recipients from both endowment funds will contribute to the research being done at the Lab.

"Singapore has one of the most reliable electricity networks globally. We must continue to develop and grow our local capabilities to prepare for the future. This collaboration between NTU and SP Group will boost our network resilience and develop innovative solutions that will serve our future energy needs," said **Dr Tan See Leng, Second Minister for Trade and Industry**.

The Lab's research will focus on four key thrusts, namely:

- Failure analysis and detection of equipment degradation, at the component level;
- Enhancing condition monitoring techniques to detect anomalies and pre-empt equipment fault;
- Assessment and modelling of key equipment to optimise asset performance and useful life; and
- Enhancing system planning to optimise renewal, maintenance and operation of the grid, taking into consideration criticality, asset performance and cost-benefit.

The Lab will conduct studies on equipment components and materials to gauge the equipment's degradation and lifespan. This helps to optimise equipment maintenance and replacement and achieve network reliability in a cost- and operationally-effective manner.

Researchers from SP Group and NTU will design and develop a unique scalable system – one of the first in the world – that can detect and pre-empt equipment fault by sensing electrical and sound anomalies within power distribution substations.

The research will leverage artificial intelligence (AI) and machine learning to conduct comprehensive real-time monitoring and perform trend analysis to predict future network problems before they appear.

The Lab will also develop new intellectual property and commercially viable innovations which will benefit the wider energy industry.

Mr Stanley Huang, Group Chief Executive Officer at SP Group said: "SP Group is focused on upholding reliable and efficient supply of electricity to consumers in Singapore. Together with NTU, we look forward to developing first-in-class, innovative ways to strengthen our network planning, renewal and maintenance practices. In creating a sustainable network for future generations, we are committed to building a strong pipeline of engineering leaders for the energy sector."

NTU President Professor Subra Suresh said: "We are delighted that SP Group has selected NTU as their partner in both research and education. While the research collaboration leverages advanced technologies such as artificial intelligence and machine learning to enhance the resilience and efficiency of Singapore's power grid, the endowment funds invest in the future of outstanding talent for the energy sector by supporting our young researchers and faculty members. Our partnerships with industry play a critical role in translating our vision of the NTU Smart Campus initiative to harness digital and tech-enabled solutions for the benefit of society and the sustainability of resources."

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About SP Group

SP Group is a leading energy utilities group in the Asia Pacific. It owns and operates electricity and gas transmission and distribution businesses in Singapore and Australia, and district cooling businesses in Singapore and China. SP Group is committed to providing customers with reliable and efficient energy utilities services. About 1.6 million industrial, commercial and residential customers in Singapore benefit from SP Group's world-class transmission, distribution and market support services. These networks are amongst the most reliable and cost-effective world-wide. SP Group also drives digital solutions to empower customers to manage their utilities, reduce consumption and save cost.

For more information, please visit spgroup.com.sg or for follow us on Facebook at fb.com/SPGroupSG and on Twitter @SPGroupSG.

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, set up jointly with Imperial College London.

NTU is also home to world-class 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 Novena, Singapore's healthcare district.

For more information, visit www.ntu.edu.sg.

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