

NTU Singapore & Trinasolar Unite To Revolutionize AI-Driven Smart Energy Storage

By **S.S. Dev** - 25th February 2025

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Nanyang Technological University, Singapore (NTU Singapore) and Trinasolar, a global leader in smart photovoltaic (PV) and energy storage solutions, have entered into a strategic collaboration to develop advanced smart energy storage systems (ESS). This partnership aims to enhance efficiency, reliability, and economic viability in renewable energy applications. As the adoption of solar, wind, and hydrogen energy continues to expand globally, energy storage technologies are becoming increasingly crucial for maintaining power grid stability and optimizing energy utilization.

The collaboration is spearheaded by the Energy Research Institute at NTU (ERI@N) and focuses on leveraging artificial intelligence to improve energy storage solutions. The joint research will work on developing AI-driven tools that enhance investment decision-making, ensure system stability through intelligent energy forecasting, and implement smart optimization algorithms to maximize the effectiveness of energy storage applications. By integrating Trinasolar's expertise in PV and ESS technologies with NTU's cutting-edge research in energy innovation, the partnership seeks to address critical challenges in the field and drive the development of more efficient and intelligent energy storage solutions.

NTU Vice President (Industry) Professor Lam Khin Yong, said in a statement, "This partnership between NTU and Trinasolar reflects our commitment to advancing energy technologies that will support global efforts towards a low-carbon future. NTU has deep links with industry players and a strong track record in successful industry collaborations for renewable energy power grids, thus enabling smooth commercialisation pathways for any intellectual property developed in our joint partnerships. By aligning cutting-edge research

with industry needs, we want to develop impactful solutions that build a more sustainable and energy-resilient future.”

Helena Li, Executive President, Trinasolar, remarked, “As one of the global leading manufacturers of PV and ESS solutions with 30 world records under our belt, Trinasolar brings to the table its expertise in global solar-storage market trends and cutting-edge technologies. We are proud to collaborate with NTU, a top-tier research institution renowned for its academic excellence. This initiative aims to deliver tangible value to energy storage customers, including cost optimization, improved return on investment (ROI), and enhanced system reliability.”

To formalize this initiative, NTU and Trinasolar signed a technology research collaboration agreement, marking a significant step toward strengthening their commitment to advancing AI-powered energy storage technologies. Both organizations are dedicated to deepening their collaboration and developing innovative solutions to meet the growing demands of the renewable energy sector. Through this partnership, NTU and Trinasolar aim to contribute to a more sustainable and resilient energy future.