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NTU Singapore and Trinasolar to advance AI-powered smart energy storage solutions

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Online Bureau Agencies
Published On Feb 26, 2025 at 05:30 AM IST

Nanyang Technological University, Singapore (NTU Singapore) and Trinasolar, a global smart photovoltaic (PV) and energy storage solutions provider, are collaborating to develop smart energy storage systems (ESS) to enhance efficiency, reliability, and economic viability in renewable energy applications.

As solar, wind, and hydrogen energy sources expand globally, energy storage

technologies will play a critical role in ensuring power grid stability and optimising energy use.

Led by the Energy Research Institute @ NTU (ERI@N), the collaboration aims to develop AI-driven tools that can improve investment decisions, enhance system stability through intelligent energy forecasting, and deploy smart optimisation algorithms for diverse energy storage applications.

By combining Trinasolar's expertise in PV and ESS technologies with NTU's leading research in energy innovation, the collaboration seeks to address key challenges in smart energy storage through three strategic focus areas:

1. Smart Investment Decision-making
2. Ensuring System Stability with AI-Powered Forecasting
3. Smart Optimisation Algorithms

NTU and Trinasolar formalised their partnership through a signing of a technology research collaboration agreement.

NTU Vice President (Industry) Professor Lam Khin Yong highlighted the importance of academia-industry collaboration, and said, "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 powergrids, 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, emphasised the company's commitment to research and development collaborations to create cutting-edge solar solutions, "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 optimisation, improved return on investment (ROI), and enhanced system reliability."

Trinasolar and NTU Singapore are committed to deepening their collaboration in AI-powered energy storage applications and developing innovations to meet the evolving demands of the renewable energy sector.