

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

28 February 2025 | News

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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.

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

- Smart Investment Decision-making
- Ensuring System Stability with AI-Powered Forecasting
- Smart Optimisation Algorithms

NTU Vice President (Industry) Professor Lam Khin Yong,Â highlighted the importance of academia-industry collaboration: â??This partnership between NTU and Trinasolar reflects our commitment to advancing energy technologies that will support global efforts towards a low-carbon future.Â 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.â?

The collaboration will be led byÂ NTU Associate Professor Xu Yan, Cluster DirectorÂ of Smart Grids and Microgrids at ERI@N,Â andÂ Director, Centre for Power Engineering at the School of Electrical and Electronic Engineering.

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.

Both parties have a shared vision of advancing the global energy transition and promoting sustainable development, paving the way for a smarter, more resilient energy future.