



CAMPUS HAPPENINGS



NTU Singapore wins EuroCham Sustainability Award for sustainable efforts

NTU has won the EuroCham Sustainability Award 2023 in the Environmental, Social and Governance (ESG) investments category, the only Institute of Higher Learning among the finalists. The EuroCham Sustainability Awards by the [European Chamber of Commerce, Singapore](#) (EuroCham Singapore), recognize companies of both Singaporean and European origins for their efforts in ESG. NTU Senior Vice President (Administration) Ms Tan Aik Na accepted the award on behalf of the University from Deputy Prime Minister and Coordinating Minister for Economic Policies Heng Swee Keat, at a ceremony held at the Capella Hotel on 2 November 2023.

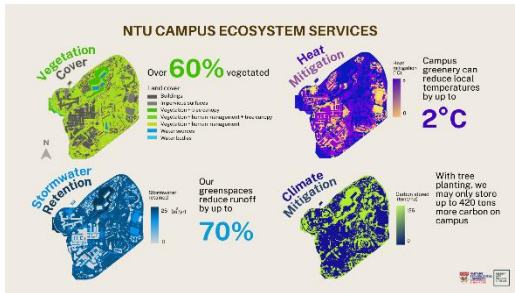
Click [HERE](#) for more details.



Singapore and Indonesia inspiring research in climate change and sustainable development with INSPIRASI launch

NTU Singapore and Indonesia's Ministry of Education, Culture, Research, and Technology have launched a partnership focusing on climate change and sustainable development. This collaboration, named the Indonesia-NTU Singapore Institute of Research for Sustainability and Innovation (INSPIRASI), is a five-year research collaboration between Indonesia's Directorate General of Higher Education, Research, and Technology and founding universities such as NTU. With a focus on creating tangible solutions for climate change mitigation and sustainability, the program, inclusive of the establishment of a centre of excellence, aims to attract researchers, students, and industry collaborators.

Click [HERE](#) for more details.



NTU Campus Ecosystem Services Assessment

In pursuit of sustainability goals, uncovering NTU's ecosystem services becomes significantly important. Explore the evolution of NTU's land cover and evaluate the current efficacy of nature in providing essential ecosystem services. This project is led by the [Resilient and Inclusive Cities lab](#) at the Asian School of the Environment, with [Earthlink NTU](#) as a collaborator.

Click [HERE](#) for more details.



Research Exhibition Booth at World Engineer's Summit 2023

NTU Singapore researchers from the [School of Materials Science Engineering](#), [Energy Research Institute at NTU](#), [Singapore Centre for Environmental Life Sciences Engineering](#), [Singapore CEA Alliance for Research in Circular Economy](#), and [Earth Observatory of Singapore](#) showcased various sustainability-related research and innovations at an exhibition booth during the World Engineers Summit (WES) 2023 on 8 and 9 November, 2023. The event, organized by The Institution of Engineers, Singapore and themed 'Engineering for A Sustainable Future,' attracted over 700 regional and international guests.

Click [HERE](#) for more details.

RESEARCH HIGHLIGHTS



NTU deepens research and academic ties with France

NTU Singapore is expanding its research and academic collaborations with French organisations to explore frontiers in quantum physics, nuclear energy, satellite engineering, sustainability, artificial intelligence, and more. During the 3rd Singapore-France Joint Committee on Science and Innovation (JCSI), NTU and its French partners inked several new partnerships and renewed existing collaborations. Witnessed by Deputy Prime Minister, Mr Heng Swee Keat and French Minister for Higher Education and Research, Professor Sylvie Retailleau, the agreements include S\$20 million Phase 2 funding for e-waste recycling, a new joint centre for cleaner energy development (Singapore Alliance with France for Fusion Energy - SAFE), and Phase 3 of a joint lab between NTU and Thales to develop small satellite technologies.

Click [HERE](#) for more details.



Innovative alternative to palm oil for food applications

NTU Singapore scientists have partnered with Eves Energy to scale up and commercialise their innovative method for producing a palm oil alternative for food applications. The innovation features a method that effectively produces and extracts plant-based oils from a type of common microalgae. The process also yields an algae cake, a nutrient-rich food product convertible into supplements and seaweed for food production. Eves Energy plans to establish a facility in Indonesia in 2024, aiming to produce 1.2 million metric tons of microalgae oil and algae cake within two years. This initiative not only provides a sustainable palm oil alternative but also holds potential for renewable energy.

Click [HERE](#) for more details.



Powering clean energy with chicken feathers

NTU Singapore and [ETH Zurich](#) scientists devised a method to convert chicken feathers into a clean and sustainable material to build zero-waste fuel cells. Extracting keratin from feathers and processing it into ultra-fine amyloid fibrils, they created a thin membrane capable of conducting protons which is a vital component of fuel cells. In tests, this feather-based membrane successfully powered an LED lamp, a small fan, and a toy car in a commercial fuel cell setup. Unlike conventional fuel cells using toxic chemicals, the keratin-based membrane is environmentally friendly, produced through a green process, and cost-effective due to abundant chicken feather waste.

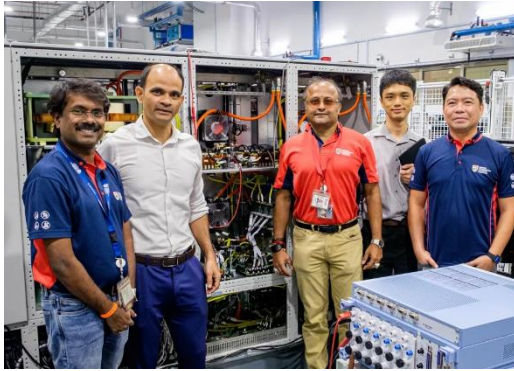
Click [HERE](#) for more details.



AI-tech to make batteries safer and last longer

NTU Singapore scientists in collaboration with [Durapower Technology Singapore Pte Ltd](#), have introduced a cloud-based technology designed to significantly improve the lifespan and safety of lithium-ion batteries. This patent-pending innovation, powered by the Internet of Things (IoT) and Artificial Intelligence (AI), allows for high-accuracy, real-time monitoring of lithium-ion batteries. It can predict battery conditions for up to five years, potentially extending their lifespan by over 50%, thereby reducing carbon emissions. The project, supported by the Energy Market Authority and National Research Foundation Singapore, aligns with the Research, Innovation, and Enterprise 2020 Plan.

Click [HERE](#) for more details.



NTU deep tech energy spin-off Amperesand to get \$10 million boost for commercialisation

Amperesand, a deep tech spin-off from NTU, is set to receive a \$10 million boost to commercialise technology that can enhance the efficiency of electric vehicle (EV) charging. It is the first start up to benefit from a \$75 million pilot program led by Temasek, focused on accelerating successful deep tech start-ups from NTU and NUS research. Amperesand is poised to disrupt the way energy grids are managed and how electricity is distributed, with its Solid-State Transformers (SSTs) technology, which comprise over a dozen cutting-edge deep tech Intellectual Properties developed by scientists from the [Energy Research Institute @NTU \(ERI@N\)](#). The start-up aims to be the first globally to commercialize a modular SST for multi-megawatt fast EV charging.

Click [HERE](#) for more details.

OTHER EVENTS



Zero Market Eco Xmas Event

Event Date: 16-17 Dec 2023. 9:00am-2:00pm

Details: Click [HERE](#) for more details

Organized by [Tzu Chi Humanistic Youth Centre](#), the Zero Market is a sustainable lifestyle market that aims for zero meat and zero plastic. In this year's Christmas edition, explore an extensive selection of zero-waste items and environmentally conscious gift suggestions to ensure a guilt-free Christmas shopping experience. Participate in interactive workshops and engaging activities that foster eco-awareness, promoting a greener lifestyle.



Ecolife Guided Tour at Coney Island Park

Event Date: 9 Dec 2023, 9:00am-11:00am

Details: Click [HERE](#) for more details

Coney Island Park spans 80 hectares and encompasses diverse habitats such as coastal forests, grasslands, mangroves, and Casuarina woodlands. Within this expansive area, a rich array of flora and fauna thrives, including species that are critically endangered. Join volunteer guides to delve into the island's fascinating history and discover more about its unique ecosystem!



NTU Sustainability Award Achievements 2023

**ISCN Sustainability Award -
Whole Systems Approach**



Click [HERE](#) for more details

**Eurocham Sustainability
Award – ESG Investments**



Click [HERE](#) for more details

**CIO100 Award – Team of the
Year Sustainability**



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Dec 2023