CAMPUS HAPPENINGS

Singapore Energy Consortium (SEC) membership agreement

On 6 October 2023, NTU Singapore, the National University of Singapore (NUS) and ExxonMobil signed a Singapore Energy Consortium (SEC) membership agreement. Previously known as the Singapore Energy Centre (SgEC), the consortium was established in 2018 by NTU Singapore, NUS, and ExxonMobil, the first founding member, to foster a lasting partnership between universities and the industry for sustainable energy development. The formal agreement, signed at a ceremony by NTU's Vice President (Industry) Prof Lam Khin Yong and ExxonMobil's Vice President of Research Dr Nick Clausi and NUS Deputy President (Research and Technology) Professor Liu Bin, marks the beginning of a dynamic one-year commitment to advance energy research and innovation in Singapore.

Click HERE for more details.

Wo+Men fEST 2023

Themed "Sustainability: The Next Frontiers", the Wo+Men fEST 2023 event will be held on 10 Nov 2023, 3:30-5:00pm at LT3 (NS4-02-32). Wo+Men fEST organised by Women@NTU, stands for Women and Men for Engineering, Science, and Technology and is an annual event in NTU campus since 2017. It serves as a platform for NTU researchers to present their work and ideas in brief 12-minute talks, reaching out to the wider NTU community and beyond. This year's event will feature NTU academics and industry speakers.

Click HERE for more details.

Straits Agriculture Farm Tour by Earthlink NTU

Looking to find out more about the farming scene in Singapore? Earthlink NTU's Gardening portfolio is organising a tour for NTU students and staff to a local farm, Straits Agriculture, on 4 Nov 23, 10am-1pm. Straits Agriculture is an urban start-up aeroponics farm that utilizes aeroponics technology to grow its produce. Join in the tour to find out how local farms overcome the space constraints and strive towards achieving the '30 by 30' goal for food security in Singapore. Participants will also get to harvest and bring home pesticide-free and nutritious produce.

Click HERE for more details.

ERI@N Energy Sustainability track at the Asia Clean Energy Summit

The Energy Research Institute at NTU (ERI@N) has presented a track on Energy Sustainability on 26 Oct 2023 at the Asia Clean Energy Summit, which was part of the Singapore International Energy Week (SIEW). The interactive session involved discussions by a lineup of industry experts on challenges in the energy transition journey and potential solutions from technological advancements that could play a vital role in the near future. The speakers also shared insights on achieving energy sustainability, as well as Singapore standards in emergent trends. Prof Madhavi Srinivasan, ERI@N's Executive Director also presented on technologies and strategies to give EV batteries a second life during the Energy Sustainability Track on Electric Mobility.

Click HERE for more details.

Lien International Conference on Good Governance 2023

To delve into how governance and policies can help in fostering resilience, sustainability, and inclusivity, amid global challenges such as the pandemic and climate change, the Nanyang Centre for Public Administration at NTU Singapore co-organised the Lien International Conference on Good Governance 2023 on 25-26 August. The opening day of the conference featured a speech by Mrs. Josephine Teo, Minister for Communications and Information & Second Minister for Home Affairs, focusing on good governance in the digital era. Notable speakers also included Mr. George

Yeo, former Minister of Foreign Affairs, and Mr. Desmond Tan, Minister of State in the Prime Minister's Office.

Click HERE for more details.

RESEARCH HIGHLIGHTS

Upcycling silicon from expired solar panels into lithium-ion batteries

NTU Singapore scientists have developed an efficient technique for recovering high-purity silicon from expired solar panels to produce lithium-ion batteries that could help to address the increasing global demand to power electric vehicles. Typically, solar cells are discarded after their 25 to 30-year operational lifespan and there are challenges in separating silicon from other solar cell components. Conventional recovery methods are both energy-intensive and rely on toxic chemicals, making them costly and environmentally harmful. In contrast, NTU's innovative approach involves the usage of phosphoric acid, commonly used in the food industry, ensuring higher purity, recovery rate and efficiency. This breakthrough offers a sustainable solution to the recycling challenge in solar technology.

Click HERE for more details.

Study to determine if Semakau waste can be used to build Tuas Port

NTU Singapore researchers are exploring the potential of repurposing incineration ash from Semakau, Singapore's sole landfill, for projects like constructing Tuas Port. With Semakau expected to reach capacity by 2035, the government is considering the possibility of recovering and repurposing the ash. Assistant Professor Fei Xunchang and his team from NTU's Civil and Environmental Engineering (CEE) are studying waste residues to determine if they can be repurposed for other uses such as in construction materials.

Click HERE for more details.

Affordable water purification system for developing nations

Atera Water, in collaboration with scientists from NTU Singapore and the Singapore Institute of Technology (SIT), has developed a new type of membrane-based water filtration system for large-scale clean water production, which is more affordable. The system utilizes the cost-effective nanocomposite membrane CLARITY and has only half the carbon footprint of

traditional treatment plants. This innovative technology aims to replace the rudimentary sand filter systems used in countries like Vietnam and Indonesia, which are struggling to clean their increasingly polluted groundwater.

Click HERE for more details.

Innovative way to upcycle plastics into energy-storage liquids

NTU Singapore scientists have created a process that can upcycle most plastics into valuable chemicals for energy storage. Using LEDs and a commercially available catalyst at room temperature, this energy-efficient process can be easily powered by renewable sources in the future, unlike other heat-driven recycling processes such as pyrolysis. The new approach can easily dissolve plastics, breaking them into chemical compounds useful for making fuel cells to generate electricity, or as liquid hydrogen carriers. Not only does this innovation combat plastic waste, it also reuses carbon trapped in these plastics instead of releasing it into the atmosphere as greenhouse gases through incineration.

Click HERE for more details.

OTHER EVENTS

Go Green – Call for Ideas Fund

Submission Deadline: 12 Nov 2023
Details: Click HERE for more details

Calling for green ideas! The Call for Ideas Fund aims to provide co-funding for applicants to kickstart projects that can resolve environmental challenges in the local community. These projects should seek to encourage the community to make environmentally responsible choices through outreach and education efforts. Each successful project may receive up to $20,000 or 80% of total supportable costs, whichever is lower. Shortlisted applicants will be invited to a pitching session. Submit your ideas now!

Race on sunshine – Discovering solar energy

Event Date: Now till 26 November 2023, Saturdays, 03:00 PM - 05:00 PM
Details: Click HERE for more details

Embark on a sustainability journey around Singapore Discovery Centre and gain insights on how solar energy is being harnessed and used. Get to make your own

solar cars in a team and race them under the sun! This workshop is organised by the Singapore Discovery Centre and is part of the Clean and Green Experiences.

Our water story – Visit to NEWater visitor centre

Event Date: 4 November - 25 November 2023, Saturdays, 10:30 AM - 12:30 PM
Details: Click HERE for more details

Embark on an exciting journey of water recycling at the NEWater Visitor Centre. Experience the transformation of treated used water into ultra-clean, high-grade reclaimed water which is suitable for drinking by using cutting-edge membrane technology. Get to also learn more about the vital role NEWater plays towards Singapore's water sustainability journey. This tour guarantees an engaging and educational adventure, leaving you inspired to adopt sustainable water practices in your daily life.

YOU CAN GO GREEN TOO!

Singapore's Sustainability Journey

Click HERE to find about Singapore's various sustainability initiatives from 1972 till now.

Carbon Footprint Calculator by SPGroup

Click HERE to track your carbon footprint and find out how to reduce it.

STAY IN TOUCH WITH US

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Nov 2023