

HITACHI Inspire the Next



PRESS RELEASE

Hitachi and the Lee Kong Chian Natural History Museum Collaborate to Propel STEM Education in Singapore



Singapore, 20 May 2024 – <u>Hitachi</u> today announced its collaboration with the <u>Lee Kong Chian</u> <u>Natural History Museum</u> (LKCNHM), Faculty of Science, National University of Singapore, for a series of STEM education outreach programmes designed to inspire the next generation of scientists and innovators. Led by Hitachi High-Tech within the Hitachi Group of Companies, this initiative is central to the Inspire STEM Education Outreach Programme and reflects the company's commitment to societal contributions and fostering scientific innovation. This marks Hitachi's first museum collaboration in Southeast Asia, expanding its reach to educators, students, and the broader public.

Developed by Hitachi High-Tech America in 2011 and launched in Singapore in 2017 by Hitachi Asia and Hitachi High-Tech Singapore, the <u>Inspire STEM Education Outreach Programme</u> targets local schools to cultivate future STEM leaders. Connecting early education through workforce development, the programme includes learning sessions on biomimetics, showcasing the structures and functions of living organisms through scanning electron microscopes (SEMs). Expanding its reach, Hitachi is now partnering with LKCNHM to further engage students through the museum's science initiatives and the public with the '*Nature Remixed: Learning and Unlearning from New Species*' temporary exhibition.

"Advancing STEM education is a cornerstone of global innovation. At Hitachi, we are committed to our mission of inspiring, developing and attracting the next generation of innovative pioneers who will lead societal progress," said Genichiro Yamaguchi, Managing Director, Hitachi High-Tech Singapore. "Our partnership with the Lee Kong Chian Natural History Museum is more than an educational venture; it's a platform that sets the stage for scientific breakthroughs and propels the creation of innovative solutions for the challenges of tomorrow."

As part of this collaboration, Hitachi High-Tech America Inspire STEM Outreach Programme has provided its state-of-the-art, high-powered <u>Hitachi TM4000Plus II Tabletop Microscope</u> to the museum for public biodiversity outreach. Renowned for its high magnification and cutting-edge technology, the TM4000Plus II redefines the capabilities of tabletop microscopes. Requiring minimal specimen preparation, the TM4000Plus II integrates ease of use, optimised imaging, superior image quality, all while maintaining the compact design synonymous with Hitachi's TM Series products. Widely used in research and development, quality assurance and failure analysis in sectors such as semiconductor, electronics manufacturing, automotive, pharmaceuticals, and medicine, the TM4000Plus II also supports remote learning, enabling users to access the microscope remotely.

The LKCNHM will also be conducting a public programme, 'Secrets of Extraordinary Microworlds' that will have sessions runs from 30 May to 22 June 2024, over the upcoming June Holidays. These sessions will allow participants an exclusive opportunity to operate the SEM. From August 2024, Hitachi will collaborate with LKCNHM for its new biodiversity outreach workshop '*Biodiversity Microworlds Programme'*, offering local secondary and tertiary students hands-on experience with the microscope to study visually obscure biodiversity. With the remote capabilities of the microscope, virtual education workshops will also be held for local and regional schools to remotely access the machine. Additionally, LKCNHM researchers and collaborators will also gain access to the TM4000Plus II for taxonomic work, undergraduate teaching and student-initiated projects.

"Our partnership with Hitachi is a transformative step in science education and public outreach. Specifically, this collaboration allows us to make accessible to all, a tangible, hands-on experience of applying a cutting-edge technology in the study of biodiversity. We are excited to see how this initiative will spark curiosity and a deeper understanding and appreciation of the natural world," said Associate Professor Darren Yeo, Head of the Lee Kong Chian Natural History Museum.

About Hitachi Asia Ltd.

Hitachi Asia Ltd., (Hitachi Asia) a subsidiary of Hitachi, Ltd., is headquartered in Singapore. With offices across seven ASEAN countries Indonesia, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam – Hitachi Asia and Hitachi's subsidiary companies offer IT, OT (Operational Technology) and products to support customers in their transformation journeys. We will contribute to the growth in the ASEAN region by co-creating with customers to identify the social challenges and needs and deliver the solutions. For more information on Hitachi Asia, please visit the company's website at https://www.hitachi.asia/.

About Hitachi High-Tech America and Hitachi High-Tech Singapore

Hitachi High-Tech America ("HTA") and Hitachi High-Tech Singapore (HTS) operate within the Hitachi Group Companies. HTA & HTS sell and service semiconductor manufacturing equipment, analytical instrumentation, scientific instruments, and bio-related products as well as industrial

equipment, electronic devices, and electronic and industrial materials. HTA's Inspire STEM Education Outreach Programme provides opportunities to experience real science through lending a state-of-the-art electron microscope at no cost to educational programmes and institutes as well as workforce development training and upskilling.

For more information about HTA and HTS, visit <u>https://www.hitachi-hightech.com/us</u> and <u>https://www.hitachi-hightech.com/sg/en/</u> respectively. For more information about the Inspire STEM Educational Outreach Programme, visit <u>https://www.inspirestem.com/</u>. HTS facilitates the programme in Southeast Asia, please email <u>aas-hts.aa@hitachi-hightech.com</u> for enquiries.

About the Lee Kong Chian Natural History Museum, National University of Singapore

The Lee Kong Chian Natural History Museum is Singapore's only natural history museum, and a leading institution in Southeast Asian biodiversity research, education, and outreach. Located at the National University of Singapore, over a million biological specimens, artefacts, field notes, drawings, and photographs from Southeast Asia are housed in its iconic rock-shaped building. As safe-keepers of Singapore's natural heritage, we not only seek to share knowledge with the public, but also recognise the value of our collections among the scientific community and support biodiversity research in Singapore and in the region.

For more information, visit the Museum's <u>website</u>, <u>Facebook</u>, <u>Instagram</u>, <u>X</u>, <u>YouTube</u> and <u>LinkedIn</u>.

Appendix

Nature Remixed Exhibition

Nature Remixed: Learning and Unlearning from New Species runs a machine learning algorithm that perpetually generates never-before-seen specimens out of a database of natural history drawings. Originally conceptualised using data gathered by 19th century colonial scientific expeditions to catalogue the flora and fauna of Southeast Asia, in this new iteration SISTRUM will integrate contemporary research being done at the Lee Kong Chian Natural History Museum. By incorporating data generated through the use of the Hitachi SEM, the process interrogates what it means to look at or listen to the natural world, blurring the lines between human, nature and machine.