



CAMBRIDGE CARES


CAMBRIDGE CENTRE FOR ADVANCED RESEARCH AND EDUCATION IN SINGAPORE LTD.

Biannual Newsletter Issue 7, Apr 2026




24th Biannual Report


Explore our research updates and publications for the period October 2025 – March 2026.

 [Read the report](#)

CARES brings Cambridge Festival to Singapore

The festival goes international for the first time with our hybrid event that brought together over 150 attendees from 30 schools across Singapore and the UK.

 [Read about the event](#)

 [Watch the recorded session](#)






Our largest-ever UK Higher Education Delegation

CARES showcased our CLIC and HD4 research to senior leaders from leading UK universities as part of a visit organised by the British Council to explore Singapore's education and research ecosystem.

The project that kickstarted CARES comes to an end

After more than a decade of ground-breaking research and collaboration, the **C4T** project has now come to a close, but its legacy continues to inspire our research today.

 [Discover the full story](#)



Cambridge Centre for
Carbon Reduction in
Chemical Technology
(C4T)

comes to an end

Outreach & Engagement



Our Visiting Cambridge Professor
Assoc Prof Ewa Marek (PI, SM3) was
invited as a guest speaker to speak to



The HD4 programme led a successful
Community of Practice Day aimed at

students about chemical engineering at NUS High and Tanglin Trust.



Which Street Shade Actually Keeps You Cool? 🤔 Read Prof Ronita Bardhan's (PI, HD4) interview and research in [this Void Deck story](#) by Science Centre Singapore to see how HD4 answers this question!

local educators, in collaboration with Science Centre Singapore.



We welcomed a delegation from The University of Manchester, including President & Vice-Chancellor Prof Duncan Ivison, strengthening ties with UK-linked universities in Singapore and the Cambridge–Manchester partnership.

Our heartfelt congratulations



Prof Epaminondas Mastorakos (PI, HYCOMBS) received this year's Fluid Science Research Award at the 22nd International Conference on Flow Dynamics in Sendai, Japan.



Prof Topun Austin (PI, CLIC) and a team in Cambridge worked to develop [the world's first cot-side functional neuroimaging technology](#) to speedily detect brain injuries including cerebral palsy in newborn babies.



CARES is proud to send Dr B. Harikrishnan, Dr Li Chin Law, Dr Lek Hong Lim (Lex) and Dr Yong Ren Tan to [this year's Global Young Scientists Summit](#) that welcomed its largest cohort yet.



Former CARES Principal Investigator Dr Jenni Gibbons, now a Canadian Space Agency astronaut, [served as a lunar capcom on the historic Artemis II mission](#), linking astronauts with NASA's Mission Control. She previously helped establish our C4T programme in the research areas of ship engines.

Publications

Impacts of building height and local climate zones on the performance of the InVEST Urban Cooling model

Y Wang, P Hamel, E E Ramsay, P Liu and R Stouffs

This study refines the InVEST Urban Cooling model by incorporating key urban morphological attributes such as building height and local climate zones (LCZs) to simulate high-resolution (10-m) air temperature in Singapore.

Read the paper in IOP Conference Series: Earth and Environmental Science

Peripheral aryl group transposition on pyridines using photoredox catalysis

Eugene Yew Kun Tan, Tian-Yu Peng, Taku Wakabayashi & Shunsuke Chiba

This paper reports a method to enable regioselective migration of a peripheral aryl group on pyridines via 1,2-aryl migration of azacylohexadienyl radical intermediates generated by temporary dearomatization of the pyridine rings under photoredox catalysis.

Read the paper in Nature Synthesis

Large eddy simulation of dual-fuel swirl flames

B. Harikrishnan, Savvas Gkantonas & Epaminondas Mastorakos

This study employs Large Eddy Simulation (LES) coupled with the Doubly-Conditioned Moment Closure (DCMC) model to investigate dual-fuel flames, where liquid n-heptane is injected into a lean premixed methane/air swirling stream.

[Read the paper in Combustion Theory and Modelling](#)

Let's keep in touch

CARES is open to collaborating with new partners and projects. Please email enquiries@cares.cam.ac.uk for any further questions.

Please see our [Careers page](#) for a list of opportunities.

[Join the mailing list for CARES events](#)



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