

CEE Head's Message

College of Design & Engineering
Department of Civil & Environmental Engineering
NATIONAL UNIVERSITY OF SINGAPORE

2023 Issue 1

26 January 2023

Dear Colleagues, Students, Alumni and Friends

I am delighted to share growth and progress in the last quarter 2022 and some of our plans for 2023. The department will be holding [Engineering Accreditation Board \(EAB\)](#) visits in 28-30 Mar 2023 to re-accredit the 3 undergraduate programmes: B. Eng. (Civil Engineering), B. Eng. (Environmental Engineering) and co-host with B. Tech. (Civil Engineering) with School of Continuing and Lifelong Education (SCALE). We will need the support from our students, alumni, industry partners and colleagues to provide information for the re-accreditation of these programmes.

In 2023, we will launch new approach to partnerships and the key stakeholders with whom we engage to drive progress in education and research. The department will continue our efforts in strengthening talent development (staff and students), teaching, leadership, research and administration, to steer the department towards the mission to be a leading CEE Department that innovates for a better future, which is in line with NUS vision of becoming a leading global university, shaping the future.

I am truly grateful for faithful friends and alumni who continue to support our students and department so generously. I wish everyone a happy new year filled with hope, health, and happiness.

With best wishes

Richard Liew

Professor and Head,

Department of Civil and Environmental Engineering, NUS

Head's messages are archived at <https://cde.nus.edu.sg/cee/about-us/welcomemessage/>

NUS as a Leading Global University

CEE' international stature remains strong in 2022. Besides being ranked #3 for Civil Engineering, #10 for Environmental Sciences (closest to our Environmental Engineering programme) in the world Quacquarelli Symonds (QS) Asia University Subject Rankings, many of our professors have been listed as top 2% scientist list by the Stanford University's 2022 on 10 Oct 2022. For details, please visit the website [here](#) .

Graduates from the National University of Singapore (NUS) are the eighth most employable in the world, according to a survey based on inputs from international recruiters and managers, one spot higher than NUS' showing in 2021, according to the Global Employability University Ranking and Survey.

[Extracted from The Straits Times dated 23 Nov 22](#)

Department Consultative Committee (DCC) [2023- 2024]

The department consultative committee comprises prominent engineering leaders, corporate & engineering societies/association chiefs and well-established alumni to provide strategic advice and guidance to the department. [Details](#)

CHAIRMAN

- **Mr Chin Chi Leong**, Deputy Chief Executive Officer (Building Control)/Commissioner of Buildings, Building and Construction Authority

DEPUTY CHAIRMAN

- **Er Lim Peng Hong**, President, PE Board Managing Director, PH Consulting Pte Ltd

EXTERNAL MEMBERS

- **Er Jee Yi Yng**, Country Representative, Singapore, AECOM
- **Er Tan Yoong Heng**, Director, Singapore Country Leader, Arup
- **Er Chung Choon San**, Project Director (Construction), Changi Airport Group (Singapore) Pte Ltd
- **Er Teo Tiong Yong**, Executive Director & Chief Operating Officer (Construction Division), Chip Eng Seng Corporation Ltd Infrastructure Cluster Deputy Chairman, IES
- **Er Chuck Kho**, ACES President, Deputy Chief Executive Officer and Director, CPG Consultants Pte Ltd
- **Er. Dr Johnny Wong**, Deputy Chief Executive Officer (Building) / Chief Science & Technology Officer, HDB
- **Er. Chua Chong Kheng**, Deputy Chief Executive, Infrastructure & Development, Land Transport Authority
- **Mr Matthias Ong**, Head of Corporate Engagement (SEA & Oceania), CDP
- **Mr Dalson Chung**, President, Institute of Engineers Singapore, Senior Specialist, National Environment Agency
- **Er Ng Yek Meng**, SCAL President, Managing Director, Progressive Builders Pte Ltd
- **Ms Hazel Khoo**, Director of Coastal Protection, PUB, Singapore's National Water Agency
- **Mr Oh Wee Khoon**, Managing Director, Sobono group of companies – Sobono Pte Ltd, Sobono Energy Pte Ltd and Sobono Greenland Pte Ltd
- **Er Cong Zhengxia**, Senior Director of Engineering (Building), Woh Hup (Private) Limited
- **Mr Tai Xu Hong**, Director, WOW Kampung Pte Ltd & Momentus Research Pte Ltd

Academic Talent

We celebrate the achievement of our outstanding teaching faculty who received the College of Design & Engineering Teaching Awards:

College Educator Award

- Dr Du Hongjian, Senior Lecturer
- Professor He Jianzhong
- Dr Kuang Sze Chiang, Kevin, Senior Lecturer
- Associate Professor Poh Leong Hien
- Dr Yeoh Ker-Wei, Justin, Senior Lecturer

College Teaching Excellence Award

- Dr Geng Guoqing, Assistant Professor
- Associate Professor Pang Sze Dai

Appointments

Associate Professor Poh Leong Hien is appointed as Director, and **Assoc Professor Goh Siang Huat** as Deputy Director of Centre for Protective Technology (w.e.f 1 Jan 2023).

Welcome New Colleagues

Two new Office administration staff joined the Research Team in CEE office. **Ms Esther Chua** joined CEE on 31 Oct 22 to manage research finance & admin while **Mdm Asmidah Binte Jaffar** joined on 3 Jan 2023 to assist in Postgraduate (Research) matters and events management.



Ms Esther Chua
Executive, Research



Mdm Asmidah Binte Jaffar
Management Assistant Officer, Research

Continuing Education Training

At the start of this academic year, we have revamped our MSc (Civil Engineering) and MSc (Environmental Engineering) programmes, to incorporate the use of emerging technology for practical applications, and to better align with the National agenda and industrial needs. For MSc (Environmental Engineering), a module on Climate Change and Urban Systems is introduced. In MSc (Civil Engineering), a revamped specialization on Digital Water and Climate is introduced to focus on the digital management of water resources against climate change. To integrate the topics in the core modules underlying each specialization in the MSc (Civil Engineering) programme, a capstone project is specially curated, where students are tasked to work on complex engineering problems with guidance from established practitioners such as **Er. Tan See Chee** from CPG Consultants Pte Ltd, **Er. Kang Jianhan** from KCL Consultants Pte Ltd., **Er. Bill Lazaris** and **Mr**

Dwayne Rosie from Trimble Civil Engineering and Construction, as well as Senior Data Scientist **Xie Litian** from URA.

To address the needs for re-skilling and lifelong learning objectives, we will offer bite-size Graduate Certificate programmes from Jan 2023 to provide targeted skillsets relevant to the Built Environment. A wide range of specialized topics is available for selection, to cater to the individual professional needs and career ambitions.

An Enriching Student Life

With the lifting of Covid measures, CE Club and ESE Club have returned to full face-to-face activities. This coming year, students can expect more site visits, talks from industry, and other physical activities like the CEE Sports Day organized by the clubs. In addition, we will also be resuming CEE Day this year, so you can expect an exciting slate of events. Similarly, Operations Orion and Oceanus will also be resuming their annual community outreach programmes to the less fortunate in developing countries this year, and we hope they continue their fine traditions.

From Jan to May 2023, 107 year 3 students (87 Civil Engineering and 20 Environmental Engineering) are attached to 51 companies for 20 weeks of internship from Jan to May 2023. We thank our industry partners and alumni for investing valuable time and resources in training our future engineers.

Student clubs and CEE co-hosted Alumni Dialogue sessions with current students to provide a platform for our students from both undergraduate and postgraduate programmes to learn from their seniors about career choices, internship and job expectations, attaining professional qualifications and continuous education choices etc.

Civil Engineering Alumni Fireside Chat

19 Jan 2023 at e-cube hosted by
Dr Chew Soon Hoe



Our panelist members: Chang Qingyang (2021), Emerson Tian (2020), Ng Zi Jing (2020), Hamzah K Shakir (2018)

EVE Alumni Dialogue Session

5 Oct 2023 at e-cube hosted by
Professor Balasubramanian, Rajasekhar



Our panelist members: Brandon Lee (2018), Ang Heng Yi (2020), Sharon Yeo (2011) Matthias Ong (2010) Ismail Weiliang (2018) and Jasper Ng (2009)

The department thank our partners such as IStructE Student chapter, BCA, Tunnelling and Underground Construction Society (Singapore), NEA, the Singapore Maritime Institute etc., for providing various learning opportunities such as site visits, talks and competitions to enable learning from experienced engineers beyond classroom setting.

Alumni Awards

The inaugural [NUS College of Design and Engineering \(CDE\) Alumni Award Ceremony](#) held at the NUS Shaw Foundation Alumni House on 16 Nov 2022 celebrated the achievements of 10 outstanding alumni.

Three CEE alumni clinched the prestigious awards:

- 1) The **Distinguished Alumni Award** recipient: **Mr Dalsong Chung**, NEA
- 2) Inaugural **Alumni Excellence Award** recipient: **Er Cong Zhengxia**, Woh Hup P L
- 3) **Alumni Rising Star Award** recipient: **Mr Ong Kok Chung**, Fertilclay



From left:

Prof Hu Jiangyong, Mr Ong Kok Chung, Prof Richard Liew (Head, CEE), Er Cong Zhengxia and Mr Dalsong Chung at CDE Alumni award ceremony

Home coming

The CEE Department welcomed more than 200 alumni (class of 2017 to 2022) for home coming event at Shaw Foundation Alumni House on 25 Nov 2022. Our alumni Mr Dalsong Chung, NEA and Mr Matthias Ong, CDP were our invited speakers for the event. A panel discussion with our senior alumni and Department moderated by Dr Chew Soon Hoe were held to discuss on topics such as: Career Prospects, Continuous Education, Industry Demands, Registration as a Professional Engineer (PE) etc.

The invited panel members were: **Mr Dalsong Chung**, IES President, Senior Specialist, NEA; **Er Cong Zhengxia**, Sr Director of Engineering (Building), Woh Hup PL; **Er Jee Yi Yng**, Country Representative, Singapore, AECOM; **Professor Richard Liew**, Head, CEE and **Associate Professor Pang Sze Dai**, Dy Head (Academic).



Panel discussion with our senior alumni and Department moderated by Dr Chew Soon Hoe



*Environmental Engineering
Class of 2017 – 2022*



*Postgraduates Civil Engineering
Class of 2017- 2022*



Civil Engineering Class of 2017



Civil Engineering Class of 2018



Civil Engineering Class of 2019



Civil Engineering Class of 2020



Civil Engineering Class of 2021



Civil Engineering Class of 2022

Competition

The CEE Department is exultant over the awards received by our CEE staff and students.

- **American Concrete Institute Singapore Chapter Project Competition 2022.** Held on 16th December 2022, NUS×JTC team won the Silver Award with submission on “Recycling Waste Glass in Singapore to make Low-Carbon and Durable Concrete”. The team comprised: CEE Research staff: **Dr Bong Shin Hau, Dr Luo Zhiyu**, CEE Year 2 students: **Lu Yifan, Chloe Ng**, as well as **Dr Yang Yi** from JTC. Details at this [link](#)
- **Singapore Concrete Institute’s Young Innovators Award 2022 (Gold Prize)**
A team of 3 students **Gao Yangyunzhi** (PhD Student), **Teo Hao Jun** (CVE4 student) and **Wang Huan** (311 student) mentored by Senior Lecturer **Dr Du Hongjian** from the Department of Civil and Environmental Engineering won the Singapore Concrete Institute’s Young Innovators Award 2022 (Gold Prize) for their entry titled “Reinforcement Methods and Durability Studies on 3D Concrete Printing”. This is a novel reinforcing method in the 3D concrete printing process proposed to solve the bottleneck in the structural application of 3D concrete printing. This method could be transformed into a fully automated process based on its simplicity in technique and flexibility in a time window.

The Young Innovators Award aims to recognise the contribution of young innovators to improve productivity in the field of building or civil engineering practices. Mr Gao Yangyunzhi represented the team to receive the prize at the 44th Annual Gala Dinner on 18 Nov 2022.

Beat the drum!

We are elated over the research achievements of our faculty, researchers and students. Among our outstanding team members are:

- **Assistant Professor Dr Geng Guoqing**, who received the Gustavo Colonnetti Medal from RILEM, 2022 announced on 19 Jan 2023. The Gustavo Colonnetti Medal is awarded each year to up to two researchers under 35 years of age, who have made an outstanding scientific contribution to the field of construction materials and structures. Details at this [link](#)
- **Assistant Professor, Dr Chew Soon Hoe** and, Research fellows **Dr Subramanian Sathyamoorthy** and **Dr Koh Juan Wei** won the best paper award for presenting "Producing valuable ‘sand-like’ material from excavated marine clay using mid-sized rotary kiln" at the 12th International Conference on Geotechnique, Construction materials and Environment (GEOMATE), Bangkok, Thailand, 22-24th Nov 2022. The paper presented was a part of Clay sintering project on converting excavated marine clay to ‘sand-like’ material. Authors: NUS: S. Subramanian, J.W Koh, S.H Chew (PI), HDB: Y. C. Tan, C.S. Teo, M.Y.C Koh, T.H.H Cheung, H.B.G. Foo.
- **Associate Professor Ong Ghim Ping Raymond** contributed to the team that clinched the DSTA Excellence Awards (Commendation) for his research related to airport pavements.” [Nov 2022]
- The NUS team which comprises **Associate Professor Pang Sze Dai** (leader), Senior Lecturer **Dr Du Hongjian**, student **Mr Daryl Chew** from CEE and Senior Research Fellow **Dr Tong Shanshan** (Department of Architecture) received the SCI Excellence Award 2022

At the award ceremony held at the SCI 44th Annual Gala Dinner on 18 Nov 2022. This award is given to individuals and companies who contributed towards the improvement of productivity in their buildings or civil engineering projects. The NUS team's winning submission titled "Improving the productivity and reducing the carbon footprint for the upscaling of waste marine clay" is a viable solution to reduce construction waste disposal, the carbon footprint in concrete and Singapore's reliance on imported materials. The innovative solution in green concrete can help Singapore achieve its national climate ambition of Net-Zero Emissions by 2050. Furthermore, this solution will be a concrete example for our neighbouring countries to better utilize the generated waste while maintaining rapid urban development. [Nov 2022]

- **Assistant Professor Dr Prateek Bansal** and Research Fellow **Dr Eui-Jin Kim** have received the Outstanding Paper Award from the Korean Society of Transportation (KST) at their 40th Anniversary International Conference and the 10th International Public Transportation Forum (IPTF). The award is for their paper titled "Discrete Choice Model Using Partial Monotonic Neural Network". The award ceremony took place from 28 to 30 Sep 2022 at LG Science park - ISC, Seoul, South Korea. [Sep 2022]
- **Associate Professor Gin Yew-Hoong, Karina**, received the Public Administration Medal (Bronze)(Covid-19).

WOH HUP – Distinguished Lecture

Woh Hup Visiting Chair Professor Chuyang Y. Tang, Department of Civil Engineering, The University of Hong Kong was invited to give a public lecture on "Membranes for Water, Energy, and a More Sustainable World" on 16 Nov 2022 at NUS Lecture Theatre 2. The event is hosted by Department of Civil and Environmental Engineering, Prof Balasubramanian, Rajasekhar. The department plans to invite a number of distinguished professors to visit CEE to interact and share their research expertise with our CEE community in 2023.



Plaque presentation by Prof Bala to Prof Chuyang Y. Tang



A group photo with all the participants

Stay Connected!

The [NUS Department of Civil & Environment Engineering](#) has several ways to provide you up-to-date on our upcoming activities and our accomplishments. Please subscribe to our social media platforms: [Facebook](#), [LinkedIn](#), and [Instagram](#) accounts. Join us, interact, and share!