



ASE Newsletter

December 2021

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ASIAN SCHOOL OF THE
ENVIRONMENT

Welcome to the last newsletter of 2021! This month we say goodbye and many thanks to our Chair Professor Fidel Costa, and a warm welcome to Assoc Prof Emma Hill, who is taking on the role as Chair from Jan 1. We have new staff in all categories, and an interview with ASE alumnus Victoria Cahyani Tanggono. Merry Christmas to you all!

Staff Turnover

By the end of this year, **Professor Fidel Costa** will be stepping down from his role as Chair of ASE. He is moving to a new position at the Institute de Physique du Goble de Paris (Universite de Paris). We send our warmest thanks to Fidel for his many years of service at the ASE!

Assoc Prof Emma Hill will be the new Acting Chair of ASE from January 1. Emma is currently Provost's Chair in Earth Sciences, EOS Director of Research and Strategy and a Principal Investigator in geodesy at EOS. She was previously Associate Chair for Research and Graduate Education at ASE. She is a graduate of the NTU Leadership Academy and has served on the NTU Graduate College Executive Committee and Research Integrity Committee. She has also been chairing the Justice, Equity, Diversity and Inclusivity (JEDI) Committee.

To fill the vacancy left by Fidel a new **Full Professor** will be hired. Two positions as **Assistant Professor** in the general area of volcanic and tectonic geohazards are also open.



Welcome to ASE new staff



Dr Le Chencheng

Dr Le Chencheng joined ASE in November as a Lecturer in Sustainability. He is specifically hired to be part of the teaching team for the new interdisciplinary ICC course 'Sustainability – Society, Economy and Environment'.

Welcome to ASE! What is your impression of the school so far?

So far, ASE has given the impression that it has a positive working culture that prioritises well-being, supports growth and makes everyone feel safe and comfortable. Even though I did not physically meet all my colleagues, I can feel the camaraderie. During my first faculty meeting, it was incredibly heart-warming to see them bidding virtual farewell to the outgoing Chair, Prof Fidel Costa, and extending their appreciation for his extensive contribution to the school. Also, I appreciate the willingness of my colleagues to render help when required. My special thanks go to Dr Anna, who helped me swiftly accommodate a new working environment. Besides, being an amateur photographer, walking past the Section A corridor, where the photo exhibition is, is always enjoyable. These images show the deep connection of human life with Earth and Nature and the interdisciplinarity between science and art.

What is your area of expertise/interest?

Broadly, my area of expertise lies in the chemistry domain with a particular focus on environmental analytical science. My fundamental research works have included elucidating the molecular mechanisms of biodegradation, metabolism and biotransformation in diverse biotic and abiotic matrices. My applied work ranges from sustainable large-scale centralized wastewater treatment systems to industrial-scale decentralized resource recovery operations in line with the circular economy principles.

You are not new to NTU, where have you worked before?

I used to be a PhD student and a Research Fellow in the **Nanyang Environment & Water Research Institute (NEWRI)**, supporting Singapore's national water and environmental priorities. During my seven-year stay in NEWRI, my work unites two strands of significant inquiry: determining the most value possible matter and how much it exits and subsequently developing strategies to recover it from the waste. During my fellowship, I was also tasked to manage four PUB projects and one NRF project. My responsibility included planning and designating project resources, preparing budgets, monitoring progress, and keeping stakeholders informed the entire way.



Kwa Miao Qin, joins us as Senior Executive (Student Administration). She will be handling undergraduate matters at ASE. See an interview with Miao Qin in the MSO section of this newsletter.



Rino Salman joins us as Research Fellow. Rino will be working with Assoc Prof Emma Hill's



Tow Jia Hao joins us as Research Assistant. He will be working with Dr Liesbeth Frias's team.



Mason Perry joins us as Research Fellow from 15 Nov 2021. Mason will be working with Assoc Prof Emma Hill's team.

Awards and Recognition

Nanyang Awards



The Nanyang Awards recipients received their awards at a ceremony in Nanyang Auditorium on Dec 2. It's nice to see that ASE did well across three different categories: service, teaching and research.

The awardees from ASE:

Nanyang Service Award: Mr Lee Wei Kit

Nanyang Education Award (College): Assoc Prof Benoit Taisne

Nanyang Education Award (School): Dr Kyle Bradley

Nanyang Research Award: Professor David Wardle

Highly Cited researchers

As one of 36 researchers in NTU, **Prof David Wardle** made it onto the [Clarivate Analytics Highly Cited Researchers list of 2021](#). Congratulations! NTU has more highly cited researchers than any other institution in Singapore. More on this on [here](#) and [here](#).



The JEDI Committee

The ASE/EOS JEDI committee has an active Slack group with materials and chats. Please contact any of the JEDI committee members if you want to know more! Contact info can be found on the: [JEDI web page](#)

- From 2022, Asst Prof Aron Meltzer will be taking over as chair of the Jedi Committee (as the previous JEDI chair Assoc Prof Emma Hill becomes chair of ASE).
- The committee (and various guests from ASE) had a 2-day retreat which included training in trauma-informed communication and power dynamics, and strategizing for next year.
- Thanks to everyone for participating in the workshops on unconscious bias. More training opportunities will come next year.





MSOs

Monthly MSO Interview

Every month we get to know one of the MSOs better through a series of mini interviews. This month we catch up with **Kwa Miao Qin**, new Senior Executive (Student Administration).



Kwa Miao Qin

Welcome to ASE! What is your impression of the school so far?

I was pleasantly surprised initially by the presence of ASE, as that was the first time, I came across a school that address the key issues of environment and sustainability, despite Singapore being a very small island with scarce natural resources.

This is my second week in ASE and I am enjoying my experience thus far!

You will have a key role in the school, working with Fadhila on undergraduate admin. What will be your main tasks?

I will be working along with Fadhila on undergraduate administrative matters – from open house, admission, course registration, etc. to undergraduates' graduation.

Have you had similar roles previously, and where did you work before ASE?

My first job was like my current role. I was part of the Graduate Studies team in the NTU, School of Physical and Mathematical Sciences, where I provided administrative support such as coordination of examinations, maintaining data files, processing of applications etc.

After which I moved to NUH, where I was in the Nursing Administration department providing administrative support to the nurses. My primary role included working closely with the respective stakeholders on training matters and the nurses' learning and development.

What are you looking forward to with your new job?

I have been looking forward to being a part of the undergraduate administration team at NTU ASE, as I wish to be able to provide the students a pleasant experience in their course of study. I also look forward to working with the team on open house, graduation ceremony, etc. Lastly, I am hoping to know the ASE family better!

Finally, what do you like to do in your spare time?

I enjoy spending time with my family and loved ones during the weekend. We love to go cycling, catching shows, and trying out new food together. Of course, we cannot wait for the VTL to be extended to more countries, so that we can continue to explore new cities!

Research Fellows



The RF representatives Shailendra and Karen arranged an informal lunch off campus for all new RF's that joined EOS or ASE in the last year. COVID has prevented many postdoc activities from happening in 2021 and it would have been difficult for the new joiners to meet others in the RF community. Eight out of a total of 11 new RFs took the opportunity to enjoy free lunch and meet their colleagues. Another event is planned for early in 2021 if provided it can be arranged with small group sizes.

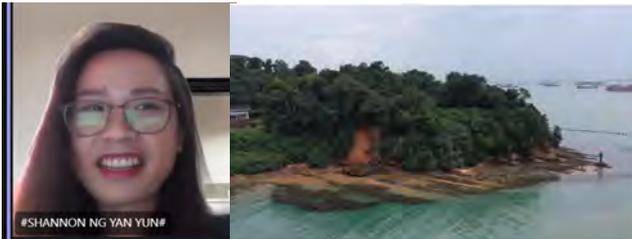




ASE Club — Undergraduate Students

Two FYP students presented their work

Shannon Ng from the geoscience specialization presented her project “*What do the rocks tell us? A look at Tanjong Rimau’s Jan 2021 landslides*”, supervised by Dr Kyle Bradley.



Chai Min Wei from the society specialization presented his project “*Investigating the urban heat island effect with the use of spatially explicit models in tropical cities*” supervised by Asst Prof Perrine Hamel.



In December, two undergraduate field courses have been successfully conducted in Singapore. We look forward to more on them in the January newsletter. For now, we wish all undergraduates a restful break.



PhD Students

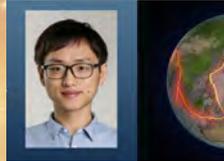
Since the last newsletter, five PhD students have passed their oral defences. Big congratulations to:



Dr George Williams



Dr Dini Nurfiani



Dr Shi Qibin



Dr Robert Scott



Dr Zhou Yongli

Also congratulations to all PhD students who passed their QE exams in November! Well done!





Coffee with our ASE Alumnus — Victoria

Where have you been since graduating from ASE?

I'm currently working as a Sustainability Analyst at Greenview, a consultancy firm that specialises in sustainability offerings for the hospitality sector. Since starting with them, I've been involved in supporting hotels' corporate sustainability programmes, software development, and also industry initiatives such as a methodology on achieving net-zero emissions for the sector.

What do you miss about ASE?

I'm really missing the camaraderie at ASE, how we can easily pop our heads into the lounge (when it was open pre-pandemic), classrooms or computer lab and just say hello to everyone! As an introvert I never thought I would profess on record that I miss having social interactions. But I guess this is what happens after fully working from home for months!

What are some lifestyle changes you have experienced since graduating and starting work amidst the pandemic?

Working from home means I hardly get my limbs moving, so I've made a conscious effort to do some stretching at the end of each work day!

If money was no object, what would you be doing?

If money were no object, I'd imagine myself living in the highlands as a strawberry farmer.

What was the last book you read?

I last read John Green's *The Anthropocene Reviewed*. It started out as a podcast but has since been adapted into a book. It's a quirky yet profound collection of commentaries on different aspects of our human-centered planet, ranging from abstract concepts like humanity's capacity for wonder, to the movie *Penguins of Madagascar*, all reviewed on a five-star scale. A read or listen never fails to leave me anxious yet hopeful in the face of humanity's beautiful contradictions.

Let's end with a fun question! Are you a hunter or a gatherer?

Definitely not a hunter - I have neither quick reflexes nor great hand-eye coordination. On the contrary, I consider myself a "jack of all trades" due to my multidisciplinary ESPP background so a gatherer would definitely suit me better!



Victoria Cahyani Tanggono is a Sustainability Analyst at Greenview and also the Internal Vice President of the ASE Alumni Association EXCO.



Save the date!

<h3>Meet your micro-network!</h3>	<h3>NTU Service week 2022</h3>
<p>10–16 January 2022</p> <p>Interested in networking with peers in the same industry or to learn more about another industry and the skills needed to enter it?</p> <p>Look out for the invitation coming your way soon!</p>	<p>29 January 2022 9 – 11 am</p> <p>Join us and bring your friends along for a meaningful and fun volunteering activity! Details to be released very soon!</p>

Looking for career opportunities?

Sustainability Analyst (1 year contract) | Razer inc. | [Apply here](#)

Research Associate (Coral Reef Ecology/Geoscience) | NTU ASE | [Apply here](#)

Program Coordinator, Environmental Education | Conservation International | [Apply here](#)

Environmental Consultant - Site Investigation & Risk Assessment, LPMR (Entry Level) | ERM | [Apply here](#)

Risk Assurance, Sustainability and Climate Change Advisory— Senior Associate | PwC Singapore | [Apply here](#)

Corporate Sustainability (Net Zero) Consultant | PwC Singapore | [Apply here](#)

Aquaculture Specialist (Hatchery and Nursery) | Barramundi Group | [Apply here](#)

Follow us on LinkedIn!

Follow us to connect with your fellow Alumni, strengthen your professional network, and receive updates!

[Click here to follow us](#)

Recent Publications

The list is not in alphabetical order and does not aim to include all published papers from ASE/EOS, but to give a taste of the incredible diversity of topics we publish on with some recent examples.

Please know that there is no automatic recording of published papers from ASE for this newsletter. This list depends on authors notifying Anna or sharing your publication in social media. Have a recent publication or outreach item we could include? Please send it to: alagerstroem@ntu.edu.sg



Federico Lauro published on microbial corrosion in the deep sea.



Steve Yim published on air pollution and lung cancer.



Kelly Andersen published on tropical tree root traits.

Raquel P. Felix, Judith A. Hubbard, James D. P. Moore, Adam D. Switzer (2021) [The Role of Frontal Thrusts in Tsunami Earthquake Generation](#). *Bulletin of the Seismological Society of America* 2021; doi: <https://doi.org/10.1785/0120210154> Twitter thread explanation: <https://twitter.com/JudithGeology/status/1458249574347251717>

Pauliina Rajala, Dong-Qiang Cheng, Scott Rice & Federico Lauro (2021) [Sulfate-dependant microbially induced corrosion of mild steel in the deep-sea: a 10-year microbiome study](#). *Microbiome*

J. M. Parrett, E. M. Slade, R. J. Knell (2021) [Morph-specific investment in testes mass in a trimorphic beetle, *Proagoderus watanabei*](#). *Journal of Zoology*.

Daniel Zuleta, Gabriel Arellano, Helene C. Muller-Landau, Sean M. McMahon, Salomón Aguilar, Sarayudh Bunyavejchewin, Dairon Cárdenas, Chia-Hao Chang-Yang, Alvaro Duque, David Mitre, Musalmah Nasardin, Rolando Pérez, I-Fang Sun, Tze Leong Yao, Stuart J. Davies (2021) [Individual tree damage dominates mortality risk factors across six tropical forests](#). *New Phytologist*.

Goh, T. Z., Bauman, A. G., Januchowski-Hartley, F. A., Morgan, K. M., Seah, J. C., & Todd, P. A. (2021). [Growth and carbonate production of crustose coralline algae on a degraded turbid reef system](#). *Marine Pollution Bulletin*, 173, 113135.

Steve H.L. Yim, T. Huang, Jason M.W. Hod, Amy S.M. Lam, Sarah T.Y. Yau, Thomas W.H. Yuen, G.H. Dong, Kelvin K.F. Tsoi, Joseph J.Y. Sung (2021) [Rise and fall of lung cancers in relation to tobacco smoking and air pollution: A global trend analysis from 1990 to 2012](#). *Atmospheric Environment*.

Spitzer, C.M., Wardle, D. A., Lindahl, B. D., Sundqvist, M. K., Gundale, M. J., Fanin, N. and Kardol, P. (2022) [Root traits and soil microorganisms as drivers of plant-soil feedbacks within the sub-arctic tundra](#). *Journal of Ecology*.

Daniela Francis Cusack, Shalom D. Addo-Danso, Elizabeth A. Agee, Kelly M. Andersen et al. (2021) [Tradeoffs and Synergies in Tropical Forest Root Traits and Dynamics for Nutrient and Water Acquisition: Field and Modeling Advances](#). *Front. For. Glob. Change*



Recent Outreach featuring ASE



YOUTUBE.COM

Singapore researchers sequence genome of hawksbill turtles to aid conservation efforts

More on Sentosa's hawksbill turtles

Find out about the research by Kim Hielim and Reginie Tiong on the genetics of hawksbill turtles in Singapore in this [video by SCELSE](#).

And they also had a second article in the Straits Times: [Bid to ensure hawksbill turtles thrive, with genome sequencing](#)



Air pollution linked to lung cancer— study by Steve Yim

The recent publication by Yim et al. in collaboration with LKCMedicine showed that black carbon pollution is linked to an increase in lung cancer. Read more here:

NTU News: [Study finds link between lung cancers and tobacco use, air pollution](#)

Nature World News: [Worsening Air Pollution Could be Responsible For Alarming Rise in Lung Cancer Cases](#)



Asst Prof Matteo Seita sends art to moon in collaboration with designer Lakshmi Mohanbabu

The 3D-printed cube represents the melding of art and science, and is one of the Singapore's contributions to an exhibit that mankind will be sending to the Moon.

Asst Prof Matteo Seita is based at NTU's School of Mechanical and Aerospace Engineering and the School of Materials Science and Engineering and holds a curtesy appointment with ASE.

NTU News: [Singapore's first 3D-printed artefact to be sent to the moon](#)

ST: [3D-printed cube among Singapore's contributions to art gallery heading to the moon](#)

Looking for more Christmas reading on environmental science research? We recommend the [EOS Blog](#)

