Praveen LINGA PhD, PE, FRSC
Professor
Department of Chemical and Biomolecular Engineering
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Lab Social : https://web.facebook.com/LingaLab
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QUALIFICATIONS

P.E. – Chemical (2018.06 – present).
Professional Engineers Board (PEB) Singapore.

Ph.D. – Chemical & Biological Engineering (2004.05 – 2009.04).
The University of British Columbia (UBC), Vancouver, BC, Canada.
Thesis: Separation of CO_2 from flue gas (post combustion capture) via hydrate crystallization.
Supervisor: Professor Peter Englezos.

Master of Technology (M.Tech.) – Chemical Engineering (2000.07 – 2002.01).
Indian Institute of Technology, Kharagpur, India.
Thesis: Simulation studies on furfural extraction column.
Supervisor: Professor S. Ray.

Bachelor of Technology (B.Tech.) – Chemical Engineering (1996.06 – 2000.05).
University of Madras, Chennai, India.
First Class with Distinction.

RESEARCH INTERESTS

My research interests encompass clathrate (gas) hydrates, energy storage, carbon dioxide capture and storage (CCS), and novel energy recovery technologies. At the “Linga Lab,” we engage in both fundamental and applied/translational research. Our vision for Linga Lab is to advance hydrate technology as a viable and effective solution to address the pressing challenges of clean water, clean energy, and environmental stewardship. This aligns with the United Nations Sustainable Development Goals (SDGs) of 6, 7, and 13. Our specific research focus entails developing methodologies and innovating on experimental process design to enhance the kinetics of hydrate formation and dissociation. Additionally, we are dedicated to exploring energy recovery from natural gas hydrates, which is recognized as a substantial energy resource.

WORK EXPERIENCE

2022.01 – present	**Professor**, Department of Chemical & Biomolecular Engineering, National University of Singapore.
2022.01 – 2023.02	**Vice Dean**, Industry-relation, Innovation & Enterprise (I^2E) Office, College of Design and Engineering, National University of Singapore.
2020.10 – 2021.12	**Vice Dean**, Communications & Outreach Office, Faculty of Engineering, National University of Singapore.
2020.07 – 2020.09	**Assistant Dean**, Research & Technology, Faculty of Engineering, National University of Singapore.

2019.01 – 2021.12 **Dean's Chair Associate Professor**, Department of Chemical & Biomolecular Engineering, National University of Singapore.

2016.07 – 2021.12 **Associate Professor** (with tenure), Department of Chemical & Biomolecular Engineering, National University of Singapore.

2016.07 – 2024.12 **Co-Lead** for Natural Gas research, Centre for Energy Research & Technology (CERT), National University of Singapore.

2010.07 – 2016.06 **Assistant Professor**, Department of Chemical & Biomolecular Engineering, National University of Singapore.

2009.04 – 2010.04 **Postdoctoral Fellow**, Department of Chemical & Biological Engineering, The University of British Columbia.

2004.05 – 2009.03 **Graduate Research/Teaching Assistant**, Department of Chemical & Biological Engineering, The University of British Columbia.

2002.04 – 2004.03 **Senior Lecturer**, M. S. Engineering College, Kilakarai, India.

AWARDS & HONOURS

- World's Most Influential Scientific Minds and Highly Cited Researcher in Engineering, Clarivate (2024).
- ScholarGPS Highly Ranked Scholar (2024).
- GSE Distinguished Scientist Award (2024), *Gas Science and Engineering (GSE)* journal.
- Top 2% scientists in the world for career data (2024, 2023, 2022, 2021, & 2020) analysis based on citation impact by a study from Stanford University.
- Research.com Engineering and Technology Leader Award (2024).
- Distinguished Lectureship Award, Chemical Society of Japan (2024).
- Best Paper Award, *Advances in Applied Energy* (2024).
- Young Alumni Achievers Award, India Institute of Technology (IIT) Kharagpur (2023).
- Featured among the World's Best Engineering and Technology Scientists (2023).
- NRF Investigatorship Award (2023).
- ScholarGPS Highly Ranked Scholar (2022).
- Best Paper Award, *Advances in Applied Energy* (2022).
- Long Service Award, National University of Singapore (2021).
- Best Paper Award, *Applied Energy* (2020).
- Engineering Educator Award for AY2018/19, NUS Engineering (2020).
- Highlighted as a Globally Influential Author in Carbon Capture Technologies, *Energy Reports* (2020).
- Outstanding Asian Researcher and Engineer Award, Society of Chemical Engineers Japan (2019).
- Fellow of Royal Society of Chemistry (FRSC), United Kingdom (2019).
- World's Most Influential Scientific Minds and Highly Cited Researcher in Engineering, Clarivate (2018).
- Best Paper Award, *Applied Energy* (2019, 2018, 2017).
- Teaching Honors List for AY2016/17, NUS Engineering (2018).
- Donald W. Davidson Award, International Conference on Gas Hydrates (ICGH9), Denver USA (2017).
- Annual Teaching Excellence Award (ATEA), NUS (2017).

- Young Researcher Award (YRA), NUS (2017).
- Inaugural Class of Influential Researchers, Invited by *I&EC Research* Journal (2017).
- Young Investigator Award, *Energies* Journal based in Switzerland (2017).
- Outstanding Young Faculty Award, AIChE Singapore Local Section (2017).
- Faculty Young Researcher Award, NUS Engineering (2017).
- Teaching Honors List for AY2015/16, Faculty of Engineering NUS (2016).
- Highly Commendable Award for Research Project of the Year and Finalist for Energy Award, IChemE Singapore (2016).
- Best Paper Award, *Applied Energy* (2016).
- Featured by EMA in its exclusive 3Qs interview series that features industry leaders and innovators in energy domain, EMA (2016).
- Service Award, AIChE Singapore Local Section (2015).
- Award to participate in summer school on carbon dioxide capture and storage, International Energy Agency (2008).
- Best presenter and Excellent paper award, International Conference on Sustainable Petroleum Development, Beijing China (2007).
- Early Faculty Induction Program Fellowship, AICTE in India, awarded for academic excellence and to pursue a career in academia (2000).
- Gold Medalist, Sri Ram Engineering College, Affiliated to University of Madras (2000).

VISITING PROFESSORSHIPS

2023.02 – 2024.02	**Visiting Adjunct Professor**, Indian Institute of Technology Roorkee, India.
2023.01 – 2023.12	**Guangdong Overseas Talent Professor**, Tsinghua Shenzhen International Graduate School, China.
2019.07 – 2021.06	**Visiting Faculty**, Indian Institute of Technology, Madras, India.
2019.04 – 2022.03	**Visiting Professor**, Harbin Engineering University, Harbin, China.
2018.03 – 2023.02	**Visiting Professor**, CAS Guangzhou Institute of Energy Conversion (GIEC), Guangzhou, China.

EDITORIAL SERVICE & EDITORIAL BOARD MEMBER APPOINTMENTS

- Executive Editor, *Energy & Fuels* (ACS Publications), 2023.01 – present.
- Associate Editor, *Energy & Fuels* (ACS Publications), 2020.06 – present.
- Editorial Board Member, *Advances in Applied Energy* (Elsevier), 2021.09 – present.
- Editorial Board Member, *Current Opinion in Chemical Engineering* (Elsevier), 2021.09 – present.
- Editorial Board Member, *Applied Energy* (Elsevier), 2020.06 – present.
- Editorial Board Member, *Technology Review for Carbon Neutrality*, 2024.03 – present.
- Editorial Board Member, *Chinese Journal of Chemical Engineering*, 2025.05 – present.
- Editorial Board Member*, Innovation Energy*, 2025.05 – present.
- Editorial Board Member, *Fluid Phase Equilibria* (Elsevier), 2019.05 – 2025.04.
- Subject Editor, *Applied Energy* (Elsevier), 2018.09 – 2020.05.
- Associate Editor, *Journal of Natural Gas Science and Engineering* (Elsevier), 2015.03 – 2020.03.
- Editorial Board Member, *Processes* (MDPI), 2020.08 – 2021.08.

- Editorial Advisory Board Member, *Energy & Fuels* (ACS Publications), 2019.01 – 2020.05.
- Editorial Board Member, *Natural Gas Industry B* (KeAi Publishing), 2017.07 – 2020.05.
- Managing Guest Editor, Pioneers in Energy Research: Dendy Sloan in *Energy & Fuels*, 2025.
- Managing Guest Editor, 10th International Conference on Gas Hydrates (ICGH10) in *Energy & Fuels,* 2025.
- Guest Editor, 10th International Conference on Gas Hydrates (ICGH10) in *Applied Energy*, 2024.
- Managing Guest Editor, 2022 Pioneers in Energy Research: John Ripmeester in *Energy & Fuels*, 2022.
- Managing Guest Editor, Special issue on Recent Research Advances in China: Unconventional Gas in *Energy & Fuels* (ACS Publications), 2021.
- Managing Guest Editor, Special issue on Gas Hydrates and Applications in the *Journal of Natural Gas Science and Engineering* to honor Professor Raj Bishnoi (University of Calgary), 2016.

IMPACT & VISIBILITY

For more details, visit: https://blog.nus.edu.sg/lingalab/publications/

- Recognized as one of the **World's Most Influential Scientific Minds** and **Highly Cited Researcher in Engineering** by Clarivate in ***2024*** and ***2018***. This prestigious list compiles world-class researchers who have demonstrated exceptional research performance over the past 11 years. Clarivate highlights that *Highly Cited Researchers constitute only 1 in 1,000 of the world's scientists and social scientists*.
- Recognized as one of the **World's Best Engineering and Technology Scientists** in ***2025***. Notably, he is ranked #9 in Singapore, while the global ranking is #714. This prestigious recognition is based on h-index within the engineering and technology discipline, as calculated by Research.com.
- Awarded ***2023 NRF Investigatorship*** by National Research Foundation (NRF) Singapore, given to a small number of excellent Principal Investigators who have a track record of research achievements that identify them as leaders in their respective field(s) of research. The award caries S$3.5 million research fund for 5-year period.
- Ranked among the **top 2% scientists in the world in the Energy** sub-field in Elsevier-Stanford's list for five consecutive years since 2020 based on a composite indicator (c-score) for career data with a top 0.39 percentile (world rank #1224 of ~313,500 scientists in 2024). Also ranked in the single year analysis for six consecutive years since 2019 with a top 0.09 percentile (world rank #261 of ~285,000 scientists in 2023) in Energy sub-field.
- ***"Advances in Applied Energy Best Paper"*** award in 2022 presented at the International Conference on Applied Energy in the award year.
- Highlighted by Clarivate in ***2020 Research Fronts Report*** as a **key contributor of "core" highly cited papers** to gas hydrates research front for the period 2014-2019. Says Clarivate in Page 26, "*Notably, the top three most-cited papers in this Research Front are from a team led by Professor Praveen Linga at the National University of Singapore.*"
- **Five** "***Applied Energy Best Paper"*** awards received in 2016, 2017, 2018, 2019 and 2020, presented at the International Conference on Applied Energy in the respective award year.
- **Co-founder**, NewGen Gas Pte Ltd (2019), specializes in gas storage technology.
- **Twenty-nine** publications listed as "***Highly Cited Paper***" in Essential Science Indicators by Clarivate (formerly Thomson Reuters). This represents the top 1% globally in the field for the publication year. According to Clarivate, "*Highly Cited Papers are considered to be indicators of scientific excellence and top performance and can be used to benchmark research performance against field baselines worldwide*".

- **Thirty-seven** publications have been listed as "***h-core papers***" in google scholar metrics, contributing to the impact of the journal. According to google scholar, "*The h-core of a publication (journal) is a set of top cited h articles from the publication (journal)*" for the 5-yr period.
- **Seventeen** publications have received "***Most Cited Paper***" recognitions from highly reputed journals in Chemical Engineering and Energy & Fuels field. *Advances in Applied Energy* (2024), *Applied Energy* (2021, 2018), *Chemical Engineering Science* (2017; 2012), *Chinese Journal of Chemical Engineering* (2022), *Desalination* (2019), *Energy* (2022; 2018; 2017), *Energy & Fuels* (2024, 2023, 2022, 2020), *International Journal of Greenhouse Gas Control* (2017; 2015), *Journal of Natural Gas Science and Engineering* (2019).

JOURNAL PUBLICATIONS (PEER-REVIEWED)

ORCID Profile: http://orcid.org/0000-0002-1466-038X.

Research impact (as of 20-May-2025):

- **Journal Publications**: >200.
- **Citations**: >22,000 (Google Scholar); >19,000 (Scopus).
- **h-index**: 77 (Google Scholar); 75 (Scopus).
- **i1000-index** (publications cited ≥1000 times): 1 (Google Scholar), 1 (Scopus).
- **i100-index** (publications cited ≥100 times): 66 (Google Scholar), 61 (Scopus).
- **Citations per Publication** in SciVal: 93.7 (field average, T.305: 31.6)
- **FWCI (Field-Weighted Citation Impact)** in SciVal: 3.3 (field average: 1.0).
- **Publications in top 10 Journal (CiteScore) Percentile**: 69.5% (field average: 38.7%).
- **Publications in top 10 Citation Percentile in the world**: 74.1% (field average: 17.6%).

Bold first author represents under my supervision or work done at Linga Lab.

(J207) Li, Y.; Hou, C.; Song, Z.; Liu, X.; Mei, S.; Zhao, J.; Linga, P.; Yin, Z.; Tuning magnesium-induced CO_2 hydrate kinetics by hydrophilic and hydrophobic amino acids for effective hydrate-based CO_2 sequestration. *Chemical Engineering Journal* **2025**. doi:10.1016/j.cej.2025.163626.

(J206) Liao, Y.; Zheng, J.; Zhao, J.; Sun, B; Linga, P.; Impact of layered heterogeneity on hydrate dissociation dynamics and fluid production behavior of hydrate-bearing sediments. *Energy & Fuels* **2025**. doi:10.1021/acs.energyfuels.5c00435.

(J205) Sun, B.; Sun, J.; Liao, Y.; Dong, M.; Zhong, J.; Linga, P.; A potential commercialization method for gas production from off-shore hydrate reservoir. *Engineering* **2025**. doi:10.1016/j.eng.2025.04.016.

(J204) Li, S.; Gu, Y.; Moridis, G.; Linga, P.; Yin, Z.; Simulating Japan's Second Offshore Natural Gas Hydrate Field Production Test: Insights on Near-Well Permeability Evolution. *Energy & Fuels* **2025**. doi:10.1021/acs.energyfuels.5c00672.

(J203) **Xiao, M.;** Hondo, E.; Zhang, Y.; Yin, Z.; Linga, P.; Leucine-Enhanced sII Hydrate Kinetics for Hydrogen Storage. *Energy & Fuels* **2025**. doi:10.1021/acs.energyfuels.5c00375.

[Invited article for "Celebrating Authors of Most-Impactful Articles (2022)"]

(J202) Viriyakul, C.; Pornaroontham, P.; Katipot, I.; Kulpathipanja, S.; Linga, P.; Rangsunvigit, P.; A systematic investigation of kinetic promoters in seawater hydrate-based technology: Optimizing formation kinetics and storage capacity. *Gas Science and Engineering* **2025**. doi:10.1016/j.jgsce.2025.205575.

(J201) **Yodpetch, V**.; Zhang, Y.; Zheng, J.; Kulpathipanja, S.; Linga, P.; Rangsunvigit, P.; Experimental Study on CO_2 Hydrate Formation in Clay-Rich Sediments for Sub-Seafloor CO_2 Sequestration. *Chemical Engineering Journal* **2025**. doi:10.1016/j.cej.2025.160533.

(J200) **Hondo, E**.; Zhang, Y.; Xiao, M.; Dhamu, V.; Natalia, V.; Linga, P.; Optimization of Hydrogen Hydrate Formation Kinetics through Molecular Coupling of 1,3-Dioxane and L-leucine. *Energy & Fuels* **2025**. doi:10.1021/acs.energyfuels.4c05456.

[Invited contribution for the special issue "Pioneers in Energy Research 2025 – Dendy Sloan"]

(J199) **Vishwakarma, G**.; Dhamu, V.; Qureshi, M F.; Bhattacharjee, G.; Pradeep, T.; Linga, P.; Understanding the Kinetics of CO_2 Hydrate Formation in Dry Water for Carbon Capture and Storage: X-Ray Diffraction and In-situ Raman Studies. *ACS Applied Materials & Interfaces* **2025**. doi:10.1021/acsami.4c17727.

(J198) Gu, Y.; Liu, X.; Li, Y.; Lu, H.; Xu, C.; Ren, J.; Chen, G-J.; Linga, P.; Zhao, J.; Yin, Z.; Feasibility analysis of liquid CO_2 injection and sequestration as hydrates in South China Sea marine sediments over 100 years. *Applied Energy* **2025**. doi:10.1016/j.apenergy.2024.125068.

(J197) Zhang, J.; Li, Y.; Li, Y.; Lu, H.; Xiao, M.; Rao, Y.; Linga, P.; Chen, L.; Yin, Z.; Phase equilibria and guest gas occupancy characteristics of H2-DIOX sII hydrates based on calorimetric and Raman analysis. *Fluid Phase Equilibria* **2025**. doi:10.1016/j.fluid.2024.114262.

(J196) Jeenmuang, K.; Veluswamy, H. P.; Chalermsinsuwan, B.; Linga, P.; Pornaroontham, P.; Rangsunvigit, P.; Optimizing the impact and interaction of crystallizer size and experimental setup for sII methane hydrate formation using response surface methodology. *Fuel* **2025**. doi:10.1016/j.fuel.2024.133033.

(J195) **Dhamu, V.**; Xiao, M.; Qureshi, M. F.; Linga, P.; Deciphering the CO_2 hydrates formation dynamics in brine-saturated oceanic sediments using experimental and machine learning modelling approach. *Energy* **2024**. doi:10.1016/j.energy.2024.133802.

(J194) Li, Y.; Xu, C.; Zhu, J.; Lu, H.; Liu, Y.; Gu, Y.; Pan, Z.; Linga, P.; Yin, Z.; Comprehensive characterizations of core sediments recovered from Shenhu W17 well in South China sea and its impact on methane hydrate kinetics. *Gas Science and Engineering* **2024**. doi:10.1016/j.jgsce.2024.205482.

(J193) **Sun, J.**; Zhang, Y.; Chou, I.; Jiang, L.; Li, X.-S.; Linga, P.; Hydrate–based SF6 capture and sequestration: insights from thermodynamics, kinetics, in–situ Raman spectroscopy, and molecular dynamic simulation. *Chemical Engineering Journal* **2024**. doi:10.1016/j.cej.2024.156530.

(J192) Zhang, J.; Li, Y.; Rao, Y.; Li, Y.; He, T.; Linga, P.; Wang, X.; Chen, Q.; Yin, Z.; Probing the pathway of H_2-THF and H_2-DIOX sII hydrates formation: Implication on hydrate-based H_2 storage. *Applied Energy* **2024**. doi:10.1016/j.apenergy.2024.124289.

(J191) Gu, Y.; Li, S.; Song, Z.; Lu, H.; Xu, C.; Sun, J.; Yi, W.; Zhao, J.; Li, X.-S.; Linga, P.; Yin, Z.; Analysis on a five-spot well for enhancing energy recovery from silty natural gas hydrate deposits in the South China Sea. *Applied Energy* **2024**. doi:10.1016/j.apenergy.2024.124237.

(J190) **Ma, Y**.; Zhang, Y.; Xu, H.; Jeenmuang, K.; Bhattacharjee, G.; Linga, P.; Mixed Methane/Dioxane hydrate formation in seawater for solidified natural gas storage. *Energy & Fuels* **2024**. doi:10.1021/acs.energyfuels.4c03090.

[Invited submission for special issue related to ICGH10 (10th International Conference on Gas Hydrates)]

(J189) Li, Y.; Yin, Z.; Rao, Y.; Lu, H.; Xu, C.; Liu, X.; Li, Y.; Zhao, J.; Linga, P.; Ultra-rapid CO_2 hydrate nucleation and growth enabled by magnesium coupled with amino acid as promoter. *Energy & Fuels* **2024**. doi:10.1021/acs.energyfuels.4c01776.

[Invited submission for special issue related to ICGH10 (10th International Conference on Gas Hydrates)]

(J188) Bhawangirkar, D.; Yin, Z.; Zhang, B.; Wu, Q.; Kuang, Patankar, S.; Sun, B.; Linga, P.; How do varying THF concentrations affect the CH_4 cage occupancy in CH_4+THF sII hydrates? A thermodynamic approach. *Energy & Fuels* **2024**. doi:10.1021/acs.energyfuels.4c0213.

[Invited submission for special issue related to ICGH10 (10th International Conference on Gas Hydrates)]

(J187) **Lan, X.**; Chen, J.; Li, D.; Zheng, J.; Linga, P.; Gas Storage via Clathrate Hydrates: Advances, Challenges, and Prospects. *Gas Science and Engineering* **2024**. doi:10.1016/j.jgsce.2024.205388.

[Invited submission for 2024 Distinguished Scientists Special Issue]

(J186) **Dhamu, V.**; Qureshi, M. F.; Selvaraj, N.; Yuanmin, J. Y.; Guo, I. T.; Linga, P.; Dual Promotional Effect of l-Tryptophan and 1,3-Dioxane on CO_2 Hydrate Kinetics in Seawater under Static/Unstatic Conditions for Carbon Capture and Storage Application. *Energy & Fuels* **2024**. doi:10.1021/acs.energyfuels.4c01553.

[Invited submission for special issue related to ICGH10 (10th International Conference on Gas Hydrates)]

(J185) **Zheng, J.**; Zhang, Y.; Zhao, L.; Li, H.; Zhao, R.; Nie, X.; Deng, S.; Linga, P.; A hydrate-based post-combustion capture system integrated with cold energy: Thermodynamic analysis, process modeling and energy optimization. *Energy Conversion and Management* **2024**. doi:10.1016/j.enconman.2024.118656.

(J184) **Sun, J.**; Zhang, Y.; Bhattacharjee, G.; Li, X. S.; Jiang, L.; Linga, P.; Hydrate-based energy storage: Studying mixed CH_4/1,3-dioxane hydrates via thermodynamic modeling, in-situ Raman spectroscopy, and macroscopic kinetics. *Applied Energy* **2024**. doi:10.1016/j.apenergy.2024.123517.

[Invited submission for special issue related to ICGH10 (10th International Conference on Gas Hydrates)]

(J183) Paul, L.; Lee, J. D.; Linga, P.; Kumar, R.; Exploring thermodynamic viable conditions for separation of highly energy intensive H_2O and D_2O mixtures through gas hydrate based process. *Applied Energy* **2024**. doi:10.1016/j.apenergy.2024.123515.

[Invited submission for special issue related to ICGH10 (10th International Conference on Gas Hydrates)]

(J182) Ren, J.; Yin, Z.; Lu, H.; Xu, C.; Kuang, Z.; Deng, X.; Liu, Y.; Linga, P.; Effects of South China Sea clayey-silty sediments on the kinetics and morphology of CH_4 hydrate: Implication on energy recovery. *Applied Energy* **2024**. doi:10.1016/j.apenergy.2024.123399.

[Invited submission for special issue related to ICGH10 (10th International Conference on Gas Hydrates)]

(J181) **Ouyang, Q.**; Zheng, J.; Pandey, J. S.; Von Solms, N.; Linga, P.; Coupling amino acid injection and slow depressurization with hydrate swapping exploitation: An effective strategy to enhance in-situ CO_2 storage in hydrate-bearing sediment. *Applied Energy* **2024**. doi:10.1016/j.apenergy.2024.123300.

[Invited submission for special issue related to ICGH10 (10th International Conference on Gas Hydrates)]

(J180) Ren, J.; Yin, Z.; Chen, G.; Lu, H.; Xu, C.; Zeng, S.; Linga, P.; Effect of marine clay minerals on the thermodynamics of CH_4 hydrate: Evidence for the inhibition effect with implications. *Chemical Engineering Journal* **2024**. doi:10.1016/j.cej.2024.151148.

(J179) Zhang, J.; Yin, Z.; Khan, S. A.; Li, S.; Li, Q.; Liu, X.; Linga, P.; Path-dependent morphology of CH_4 hydrates and their dissociation studied with high-pressure microfluidics. *Lab on a Chip* **2024**. doi:10.1039/D3LC00950E.

(J178) **Zhao, J.**; Zhang, Y.; Liao, Y.; Zhang, K.; Yang, M.; Linga, P.; Formation and production characteristics of shallow marine hydrates considering overlying water erosion. *Energy & Fuels* **2024**. doi:10.1021/acs.energyfuels.3c04594.

(J177) **Dhamu, V.**; Mengqi, X.; Qureshi, M. F.; Yin, Z.; Jana, A. K.; Linga, P.; Evaluating CO_2 hydrate kinetics in multi-layered sediments using experimental and machine learning approach: Applicable to CO_2 sequestration. *Energy* **2024**. doi:10.1016/j.energy.2023.129947.

(J176) **Wu, Y.**; Zhang, Y.; Bhattacharjee, G.; He, Y.; Zhai, M.; Linga, P.; Seawater-based methane storage via mixed CH_4/1,3-dioxane hydrates: Insights from experimental and molecular dynamic simulations. *Chemical Engineering Journal* **2024**. doi:10.1016/j.cej.2023.147721.

(J175) **Jeenmuang, K.;** Pornaroontham, P.; Qureshi, M. F.; Linga, P.; Rangsunvigit, P.; Micro kinetic analysis of the CO_2 hydrate formation and dissociation with L-Tryptophan in brine via high pressure in situ Raman spectroscopy for CO_2 sequestration. *Chemical Engineering Journal* **2024**. doi:10.1016/j.cej.2023.147691.

(J174) **Zhang, Y.**; Clarke, M.; Linga, P.; Solid-Liquid-Vapour equilibrium conditions of tetra-iso-amyl ammonium bromide (TiAAB) semiclathrates formed from H_2. *Fluid Phase Equilibria* **2024**. doi:10.1016/j.fluid.2023.114010.

(J173) Zeng, S.; Yin, Z.; Ren, J.; Bhawangirkar, D.R.; Huang, L.; Linga, P.; Effect of $MgCl_2$ on CO_2 sequestration as hydrates in marine environment: A thermodynamic and kinetic investigation with morphology insights. *Energy* **2024**. doi:10.1016/j.energy.2023.129616.

(J172) **Sun, N**.; Zhang, Y.; Bhattacharjee, G.; Li, Y.; Qiu, N.; Du, S.; Linga, P.; Seawater-based sII hydrate formation promoted by 1,3-Dioxolane for energy storage. *Energy* **2024**. doi:10.1016/j.energy.2023.129606.

(J171) **Dhamu, V.**; Qureshi, M. F.; Bharckoltz, T. A.; Mhadeshwar, A. B.; Linga, P.; Evaluating liquid CO_2 hydrate formation kinetics, morphology, and stability in oceanic sediments on a lab scale using top injection. *Chemical Engineering Journal* **2023**. doi:10.1016/j.cej.2023.147200.

(J170) Xiao, P.; Li, J.J.; Chen, W.; Pang, W.X.; Peng, X.W.; Xie, Y.; Wang, X.H.; Deng, C.; Sun, C.Y.; Liu, B.; Zhu, Y.J.; Peng, Y.L.; Linga, P.; Chen, G.J.; Enhanced formation of methane hydrate from active ice with high gas uptake. *Nature Communications* **2023**. doi:10.1038/s41467-023-43487-6.

(J169) Li, Y.; Yin, Z.; Lu, H.; Xu, C.; Liu, X.; Huang, H.; Chen, D.; Linga, P.; Evaluation of amino acid L-Leucine as a kinetic promoter for CO_2 sequestration as hydrate: A kinetic and morphological study. *Journal of Environmental Chemical Engineering* **2023**. doi:10.1016/j.jece.2023.111363.

(J168) Zhang, J.; Li, Y.; Yin, Z.; Zheng, X. Y.; Linga, P.; How THF tunes the kinetics of H_2-THF hydrate? A kinetic study with morphology and calorimetric analysis. *Industrial & Engineering Chemistry Research* **2023**. doi:10.1021/acs.iecr.3c02869.

(J167) **Dhamu, V.**; Qureshi, M. F.; Abubakar, S.; Usadi, A.; Bharckoltz, T. A.; Mhadeshwar, A. B.; Linga, P.; Investigating high-pressure liquid CO_2 hydrate formation, dissociation kinetics, and morphology in brine and freshwater static system. *Energy & Fuels* **2023**. doi:10.1021/acs.energyfuels.3c01089.

[Invited contribution for the special issue “Highlighting Contributions from Our Editorial Board Members (2023)”]

(J166) Zhang, J.; Li, Y.; Linga, P.; He, T.; Zheng, X. Y.; Yin, Z.; Coupling amino acid L-Val with THF for superior hydrogen hydrate kinetics: Implication for hydrate-based hydrogen storage. *Chemical Engineering Journal* **2023**. doi:10.1016/j.cej.2023.143459.

(J165) **Zhang, Y.**; Xu, H.; Bhattacharjee, G.; Linga, P.; Methane storage in simulated seawater enabled by 1,3-Dioxane as an environmentally benign promoter. *Energy & Fuels* **2023**. doi:10.1021/acs.energyfuels.3c01036.

[Invited article for Top Cited Authors special issue in *Energy & Fuels* journal]

(J164) **Zheng, L.**; Zheng, J.; Wang, Z.; Gao, S.; Sun, B.; Linga, P., Effect of clay on methane hydrate formation and dissociation in sediment: Implications for energy recovery from clayey-sandy hydrate reservoirs. *Applied Energy* **2023**. doi:10.1016/j.apenergy.2023.121064.

(J163) Ren, J.; Zeng, S.; Chen, D.; Yang, M.; Linga, P., Yin. Z.; Roles of montmorillonite clay on the kinetics and morphology of CO_2 hydrate in hydrate-based CO_2 sequestration. *Applied Energy* **2023**. doi:10.1016/j.apenergy.2023.120997.

[ESI "*Highly Cited Paper*" (top 1% in Engineering)]

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[Invited submission featured under a special section "Progress in Applied Energy"; ESI "*Highly Cited Paper*" (top 1% in Engineering field); *"Most Cited Paper"* in 2021 (this constitutes the top 25 most cited of 5000+ publications in the journal from 2018-2021), Cited >300 times]

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[Invited submission for a special issue "PSE Advances in Natural Gas Value Chain"]

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(J80) **Yin, Z.**; Khurana, M.; Tan, H.K.; Linga, P.; A review of gas hydrate growth kinetic models *Chemical Engineering Journal* **2018**, 342, 9-29. doi:10.1016/j.cej.2018.01.120.

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(J79) **Too, J. L.**; Cheng, A.; Khoo, B. C.; Palmer, A.; Linga, P.; Hydraulic fracturing in a penny-shaped crack. Part II: Testing the frackability of methane hydrate-bearing sand. *Journal of Natural Gas Science and Engineering* **2018**, 52, 619-628. doi:10.1016/j.jngse.2018.01.046. [Cited >100 times]

(J78) **Too, J. L.**; Cheng, A.; Khoo, B. C.; Palmer, A.; Linga, P.; Hydraulic fracturing in a penny-shaped crack. Part I: Methodology and testing of frozen sand. *Journal of Natural Gas Science and Engineering* **2018**, 52, 609-618. doi:10.1016/j.jngse.2017.12.022.

(J77) **Yin, Z.**; Moridis, G.; Chong, Z. R.; Tan, H. K.; Linga, P.; Numerical analysis of experiments on thermally-induced dissociation of methane hydrates in porous media. *Industrial and Engineering Chemistry Research* **2018**, 57 (17), 5776-5791. doi:10.1021/acs.iecr.7b03256.

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(J75) **Khurana, M.**; Yin, Z.; Linga, P.; A review of clathrate hydrate nucleation *ACS Sustainable Chemistry and Engineering* **2017**, 5 (12), 11176-11203. doi:10.1021/acssuschemeng.7b03238.

[Invited review; ESI "*Highly Cited Paper*" (top 1% in Chemistry), Cited >300 times]

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(J73) **Veluswamy, H. P.**; Kumar, A.; Premasinghe, K.; Linga, P.; Effect of guest gas on the mixed tetrahydrofuran hydrate kinetics in a quiescent system. *Applied Energy* **2017**, 207, 573-583. doi:10.1016/j.apenergy.2017.06.101.

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(J72) **Veluswamy, H. P.**; Lee, P. Y.; Premesinghe, K.; Linga, P.; Effect of bio-friendly amino acids on the kinetics of methane hydrate formation and dissociation. *Industrial & Engineering Chemistry Research* **2017**, 56 (21), 6145-6154. doi:10.1021/acs.iecr.7b00427.

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(J68) Pandey, G.; Linga, P.; Sangwai, J.; High pressure rheology of gas hydrate formed from multiphase systems using modified couette rheometer *Review of Scientific Instruments* **2017**, 88 (2), 025102. doi:10.1063/1.4974750.

(J67) **Veluswamy, H. P.**; Kumar, A.; Kumar, R.; Linga, P. An innovative approach to enhance methane hydrate formation kinetics with leucine for energy storage application *Applied Energy* **2017**, 188, 190-199. doi:10.1016/j.apenergy.2016.12.002.

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(J64) **Zheng, J.**; Zhang, P.; Linga, P.; Semiclathrate hydrate process for pre-combustion capture of CO_2 at near ambient temperatures *Applied Energy* **2017**, 194, 267-278. doi:10.1016/j.apenergy.2016.10.118.

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(J62) He, Z.; Gupta, K.; Linga, P.; Jiang, J.; Molecular insights into the crystal nucleation and growth of CH_4 and CO_2 mixed hydrates from microsecond simulations *Journal of Physical Chemistry C* **2016**, 120 (44), 25225-25326. doi:10.1021/acs.jpcc.6b07780, Cited >100 times.

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(J58) **Yin, Z.**; Chong, Z. R.; Tan, H. K.; Linga, P.; Review of gas hydrate dissociation kinetic models for energy recovery. *Journal of Natural Gas Science and Engineering* **2016**, 35, 1362-1387. doi:10.1016/j.jngse.2016.04.050.

[Invited submission for a special issue on "Gas Hydrates and Applications" to honor Professor Raj Bishnoi of the University of Calgary; ESI "*Highly Cited Paper*" (top 1% in Engineering); "*Most Cited Paper*" recognition in 2019; Cited >200 times]

(J57) **Zheng, J.**; Babu, P.; Zhang, P.; Linga, P.; Impact of fixed bed reactor orientation, liquid saturation, bed volume and temperature on the clathrate hydrate process for pre-combustion carbon capture. *Journal of Natural Gas Science and Engineering* **2016**, 35, 1499-1510. doi:10.1016/j.jngse.2016.03.100.

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(J56) Kumar, A.; Kushwaha, O. S.; Rangsunvigit, P.; Linga, P.; Kumar, R.; Effect of additives on formation and decomposition kinetics of methane clathrate hydrates: Application in energy storage and transportation. *Canadian Journal of Chemical Engineering* **2016**, 94 (11), 2160-2167. doi:10.1002/cjce.22583.

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(J55) **Veluswamy, H. P.**; Prasad, P. S. R.; Linga, P., Mechanism of methane hydrate formation in the presence of hollow silica. *Korean Journal of Chemical Engineering* **2016**, 33 (7), 2050-2062. doi:10.1007/s11814-016-0039-0.

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(J51) **Chong, Z. R.**; Yang, S. H. B.; Babu, P.; Linga, P.; Li, X.-S., Review of natural gas hydrates as an energy resource: Prospects and Challenges. *Applied Energy* **2016**, 162, 1633-1652. doi:10.1016/j.apenergy.2014.12.061.

[Invited Review submission for a special issue for International Conference on Applied Energy (ICAE2014); Most downloaded applied energy article; ESI "*Highly Cited Paper*" (top 1% in Engineering field); "*Most Cited Paper*" recognition in 2018 (this constitutes the top 25 of 7000+ publications in the journal from 2013-2017); "*2016 Applied Energy Best Paper Award*", Cited >1500 times]

(J50) **Yang, S. H. B.**; Babu, P.; Chua, S. F. S.; Linga, P., Carbon dioxide hydrate kinetics in porous media with and without salts. *Applied Energy* **2016**, 162, 1131-1140. doi:10.1016/j.apenergy.2014.11.052.

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(J47) Lee, J.-M.; Cho, S.-J.; Lee, J.-D.; Linga, P.; Kang, K.-C.; Lee, J.; New insights on the kinetics of methane hydrate formation in a stirred tank reactor coupled with in-situ Raman spectroscopy. *Energy Technology* **2015**, 3 (9), 925-934. doi:10.1002/ente.201500066.

(J46) **Veluswamy, H. P.**; Ang, W. J.; Zhao, D.; Linga, P.; Influence of cationic and non-ionic surfactants on the kinetics of mixed hydrogen/tetrahydrofuran hydrates. *Chemical Engineering Science* **2015**, 132, 186-199. doi:10.1016/j.ces.2015.03.061.

(J45) **Babu, P.**; Linga, P.; Kumar, R.; Englezos, P.; A review of the hydrate based gas separation (HBGS) process for carbon dioxide pre-combustion capture. *Energy* **2015**, 85, 261-279. doi:10.1016/j.energy.2015.03.103.

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(J41) Loh, M.; Too, J. L.; Falser, S.; Linga, P.; Khoo, B. C.; Palmer, A.; Gas production from methane hydrates in a dual wellbore system. *Energy & Fuels* **2015**, 29 (1), 35-42. doi:10.1021/ef501769r.

(J40) **Veluswamy, H. P.**; Yew, J. C.; Linga, P.; New hydrate phase equilibrium data for two binary gas mixtures of hydrogen and propane coupled with kinetic study. *Journal of Chemical & Engineering Data* **2015**, 60 (2), 228-137. doi:10.1021/je500489d.

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(J39) Kumar, A.; Sakpal, T.; Linga, P.; Kumar, R.; Enhanced Carbon Dioxide Hydrate Formation Kinetics in a Fixed Bed Reactor Filled with Metallic Packing. *Chemical Engineering Science* **2015**, 122, 78-85. doi:10.1016/j.ces.2014.09.019.

(J38) **Babu, P.**; Datta, S.; Kumar, R.; Linga, P.; Impact of experimental pressure and temperature on semiclathrate hydrate formation for pre-combustion capture of CO_2 using tetra-n-butyl ammonium nitrate. *Energy* **2014**, 78, 458-464. doi:10.1016/j.energy.2014.10.033.

(J37) Kang, K. C.; Linga, P.; Park, K.-N.; Choi, S.-J.; Lee, J.-D.; Seawater desalination by gas hydrate process and removal characteristics of dissolved ions (Na^+, K^+, Mg^{2+}, Ca^{2+}, B^{3+}, Cl^-, SO_4^{2-}). *Desalination* **2014**, 353, 84-90. doi:10.1016/j.desal.2014.09.007.

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(J33) **Veluswamy, H. P.**; Yang, T.; Linga, P.; Crystal growth of hydrogen/tetra-n-butylammonium bromide semiclathrates based on morphology study. *Crystal Growth & Design* **2014**, 14 (4), 1950-1960. doi:10.1021/cg500074c.

(J32) **Mekala, P.**; Babu, P.; Sangwai, J.; Linga, P.; Formation and Dissociation Kinetics of Methane Hydrates in Seawater and Silica Sand. *Energy & Fuels* **2014**, 28 (4), 2708-2716. doi:10.1021/ef402445k, Cited >100 times.

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(J30) **Babu, P.**; Yao, M.; Datta, S.; Kumar, R.; Linga, P.; Thermodynamic and kinetic verification of tetra-n-butyl ammonium nitrate ($TBANO_3$) as a promoter for the clathrate process applicable to pre-combustion carbon dioxide capture. *Environmental Science & Technology* **2014**, 48 (6), 3550-3558. doi:10.1021/es4044819.

(J29) **Veluswamy, H. P.**; Kumar, R.; Linga, P.; Hydrogen storage in clathrate hydrates: Current state of the art and future directions. *Applied Energy* **2014**, 122, 112-132. doi:10.1016/j.apenergy.2014.01.063.

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(J24) **Babu, P.**; Yee, D.; Linga, P.; Palmer, A.; Khoo, B. C.; Tan, T. S.; Rangsunvigit, P., Morphology of methane hydrate formation in porous media. *Energy & Fuels* **2013**, 27, (6), 3364-3372. doi:10.1021/ef4004818, Cited >100 times.

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(J18) Kumar, A.; Sakpal, T.; Linga, P.; Kumar, R.; Influence of contact medium and surfactants on carbon dioxide clathrate hydrate kinetics. *Fuel* **2013**, 105, (3), 664-671. doi:10.1016/j.fuel.2012.10.031.

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(J7) Linga, P.; Haligva, C.; Nam, S.-C.; Ripmeester, J. A.; Englezos, P.; Gas hydrate formation in a variable volume bed of silica sand particles. *Energy & Fuels* **2009**, 23, (11), 5496–5507. doi:10.1021/ef900542m, Cited >200 times.

(J6) Kumar, R.; Linga, P.; Ripmeester, J., A.; Englezos, P.; A two-stage clathrate hydrate/membrane process for pre-combustion capture of carbon dioxide and hydrogen. Journal of Environmental Engineering **2009**, 135, (6), 411-417. doi:10.1061/(ASCE)EE.1943-7870.0000002, Cited >100 times.

(J5) Kumar, R.; Linga, P.; Moudrakovski, I.; Ripmeester, J. A.; Englezos, P.; Structure and kinetics of gas hydrates from methane/ethane/propane mixtures relevant to the design of natural gas hydrate storage and transport facilities. AIChE Journal **2008**, 54, (8), 2132-2144. doi:10.1002/aic.11527, Cited >100 times.

(J4) Linga, P.; Adeyemo, A.; Englezos, P.; Medium-Pressure Clathrate Hydrate/Membrane Hybrid Process for Postcombustion Capture of Carbon Dioxide. *Environmental Science & Technology* **2008**, 42, (1), 315-320. doi:10.1021/es071824k, Cited >200 times.

(J3) Linga, P.; Kumar, R.; Englezos, P.; The clathrate hydrate process for post and pre-combustion capture of carbon dioxide. *Journal of Hazardous Materials* **2007**, 149, (3), 625-629. doi:10.1016/j.jhazmat.2007.06.086.

[ESI "*Highly Cited Paper*" (Top 1% in Engineering field), Cited >600 times].

(J2) Linga, P.; Kumar, R.; Englezos, P.; Gas hydrate formation from hydrogen/carbon dioxide and nitrogen/carbon dioxide gas mixtures. *Chemical Engineering Science* **2007**, 62, (16), 4268-4276. doi:10.1016/j.ces.2007.04.033.

["*Most Cited Paper*" recognition in 2012 (Top 25 most cited articles among 3000+ publications from 2007-2011), Cited >400 times].

(J1) Linga, P.; Al-Saifi, N.; Englezos, P.; Comparison of the Luus-Jaakola optimization and Gauss-Newton methods for parameter estimation in ordinary differential equation models. *Industrial & Engineering Chemistry Research* **2006**, 45, (13), 4716-4725. doi:10.1021/ie060051q.

PATENTS (P) AND INVENTION DISCLOSURES (ID)

(P3) Bhattacharjee, G.; Loane, A.; Linga, P.; (**2024**) Process for Production of Hydrogen (WO 2024201256A1)

(P2) Linga, P.; Veluswamy, H. P.; Kumar, A.; Khurana, M. (**2020**) Apparatus and Method for Forming Gas Hydrates (WO 2020/117129).

(P1) Linga, P.; Babu, P.; Nambiar, A. (**2018**) A clathrate hydrate desalination method (WO 2018/156083).

(ID4) Linga, P.; Zheng, J.; Babu, P.; Kim, H.; (**2024**) Apparatus and method for forming semi-clathrate hydrates. (PCT/SG2024/050343).

(ID3) Bhattacharjee, G.; Loane, A.; Linga, P.; (**2023**) Process for Production of Hydrogen (Indian Provisional Patent Application No. 202311021045).

(ID2) Linga, P.; Veluswamy, H. P.; Kumar, A.; Khurana, M. (**2018**) Method and apparatus for hydrate production and storage in presence of thermodynamic promoter (SG Non-Provisional No. 10201810882W).

(ID1) Linga, P.; Babu, P.; Nambiar, A. (**2017**) A Clathrate hydrate desalination method (SG Non-Provisional No. 10201701459P).

BOOKS OR BOOK CHAPTERS

(BC2) Kumar, R.; Linga P. (2018) Gas Hydrates. In: White W.M. (eds) Encyclopedia of Geochemistry. Springer, Pages: 535-541, doi:10.1007/978-3-319-39193-9_177-1.

This Encyclopedia of Geochemistry series was a finalist for the Gold Category in PROSE Awards, Association of American Publishers' Professional and Scholarly Publishing Division

(BC1) Zheng, J.; Babu, P.; Linga P. (2016) Thermodynamics and Applications of CO_2 Hydrates. In: Aresta M., Dibenedetto A., Quaranta E. (eds) Reaction Mechanisms in Carbon Dioxide Conversion. Springer, Berlin, Heidelberg, Pages: 373-402, doi:10.1007/978-3-662-46831-9_10.

EDITORIAL & OPINION ARTICLES

Daraboina, N.; Kumar, R.; Linga, P. Recent Advances in Gas Hydrate Technologies: An Update from ICGH10, *Energy & Fuels*, **2025**. doi:10.1021/acs.energyfuels.4c06144.

Kumar, R.; Linga, P. 2022 Pioneers in Energy Research: John Ripmeester, *Energy & Fuels*, **2022**, 36 (18), 10405-10409. doi:10.1021/acs.energyfuels.2c02161.

Linga, P.; Chen, G.-J.; Liang, W.; Lu, Y.; Peng, S. Virtual Special Issue of Recent Research Advances in China: Unconventional Gas, *Energy & Fuels*, **2021**, 35 (13), 10341-10346. doi:10.1021/acs.energyfuels.1c01663.

Linga, P.; How Singapore can tap carbon capture technology to fight climate change post-Covid-19, Today, June **2020**, Link.

Linga, P.; Eco-friendly ways to harness natural gas efficiently, The Straits Times, June **2017**, Link.

Linga, P.; Clarke, M. A.; Englezos, P. Special issue: Gas hydrates and applications, *Journal of Natural Gas Science and Engineering*, **2016**, 35, 1353-1354. doi:10.1016/j.jngse.2016.07.006.

RESEARCH IN THE NEWS & INTERVIEWS

Note: The underlined text is hyperlinked to the news article. It is possible that some of the external links may be inactive now.

- La Repubblica (one of the most prominent online newspapers in Italy) featured an article that highlights our research and excerpts of my interview on the status of the technology related to CO2 sequestration via clathrate hydrates in deep-oceanic sediments (20 Jan 2025), "Storing carbon dioxide under the ocean is more than a theory".
- Featured by ExxonMobil in Energy Factor Asia Pacific Singapore Science: Innovation in Asia (21 May 2023), A Natural Solution for Net Zero.
- Our recent publication in *Energy & Environmental Science* (J155) on methane storage has been featured in the following news/media outlets:
  - NUS CDE Research Features (8 Mar 2023): Solid Natural Gas: An Avenue to a Safer, Cleaner and Brighter Future.
  - EurekAlert (9 Mar 2023): Solid natural gas: an avenue to a safer, cleaner and brighter future.
  - TechXplore (9 Mar 2023): Solid natural gas: An avenue to a safer, cleaner and brighter future.
  - Tạp chí Sở hữu Trí tuệ, Vietnam (15 Mar 2023): Natural gas solidification: New solutions for energy storage for the future.
  - Marcellus Drilling News (16 Mar 2023): Researchers Close to Storing & Using Natural Gas in Solid Form.
- Our recent publication in *Chemical Engineering Journal* (J142) on CO_2 storage has been featured in more than 15 news media outlets. A few of them are listed below
  - NUS Research News (07 Mar 2022): NUS research shows CO_2 could be stored below ocean floor.
  - Straits Times (07 Mar 2022): NUS researchers find way to store CO_2 beneath the ocean floor.
  - Phys Org (07 Mar 2022): Research shows carbon dioxide could be stored below ocean floor.
  - Azo Clean Tech (07 Mar 2022): New Study Confirms CO_2 Can Be Stored Below Ocean Floor Sediments.
  - Science Daily (07 Mar 2022): Carbon dioxide could be stored below ocean floor, research shows.
  - Innovation News Network (08 Mar 2022): Hydrates: A novel method to achieve carbon neutrality.
  - Nature World News (8-Mar-2022): Scientists Consider Storing Carbon in the Deep Down the Ocean Floor.
  - Yahoo News (12-Mar-2022): Storing carbon under the seafloor could be possible, study explores how.
  - MSN News (12-Mar-2022): Storing carbon under the seafloor could be possible, study explores how.

- Linga Lab research on CO_2 storage/sequestration was featured in Channel News Asia on a special programme (2019), "*Climate Change: A Wicked Problem*" series.
- Our recent publication in *Energy and Environmental Science* (J119) on rapid method for gas storage via gas hydrates has been featured in more than 20 news media outlets.
  - NUS Research News, 3 December 2020, A fast and safe way to store natural gas.
  - Chemistry World, 20 November 2020, Additive mixture speeds up process for making combustible ice.
  - CNA Online, 3 December 2020, NUS team invents 'fast and safe' way to convert natural gas to solid form, says method can boost energy security.
  - Mothership, 3 December 2020, NUS engineers invent a way to store natural gas in solid form in just 15 minutes.
  - Eureka, 3 December 2020. https://www.eurekalert.org/pub_releases/2020-12/nuos-nei120220.php.
  - Mirage News, 3 December 2020, NUS engineers invent fast and safe way to store natural gas for useful applications.
  - Trap Town Singapore, 3 December 2020, NUS team invents 'fast and safe' way to convert natural gas to solid form, says method can boost energy security.
  - News Beezer, 3 December 2020, The NUS team invents a "quick and safe" way to convert natural gas into solid form. This method can increase energy security.
  - Times of News, 3 December 2020, NUS team invents 'fast and safe' way to convert natural gas to solid form, says method can boost energy security.
  - 8world, 3 December 2020, 国大开发新混合剂 15分钟内将天然气凝结成固体.
  - TechXplore, 3 December 2020, Engineers invent fast and safe way to store natural gas for useful applications.
  - Scienmag, 3 December 2020, NUS Engineers Invent Fast And Safe Way To Store Natural Gas For Useful Applications.
  - India Education Diary, 3 December 2020, NUS engineers invent fast and safe way to store natural gas for useful applications.
  - Bioengineer.org, 3 December 2020, NUS engineers invent fast and safe way to store natural gas for useful applications.
  - Interesting Engineering, 4 December 2020, Singapore Researchers Develop Fast, Safe Method for Storing Natural Gas.
  - Azo Cleantech, 4 December 2020, NUS Engineers Formulate New Cleaner Additive Mixture to Convert Natural Gas into Solid.
  - Innovation Toronto, 4 December 2020, A new method to convert natural gas into a non-explosive solid that can be easily stored and transported.
  - New Atlas, 7 December 2020, New method quickly converts natural gas into solid form for storage.
  - Technology Networks, 7 December 2020, Safe and Affordable Storage of Natural Gas.
  - ScienceBlog, 7 December 2020, A Fast And Safe Way To Store Natural Gas.
  - Sohu News (China), 7 December 2020, https://m.sohu.com/a/436990515_99956743/?pvid=000115_3w_a.
  - Marcellus Drilling News, 8 December 2023, SNG: Researchers Convert NatGas to a Solid for Storage, Shipping.

- Slash Gear, 8 December 2020, https://www.slashgear.com/engineers-developed-a-method-to-convert-natural-gas-into-a-solid-08650119/.
- Tech Investor News, 8 December 2020, https://www.techinvestornews.com/Gadgets/Latest-Gadget-News/engineers-developed-a-method-to-convert-natural-gas-into-a-solid.
- Vesti.ru, 8 December 2020, https://www.vesti.ru/nauka/article/2496165.
- Australian Online News, 8 December 2020, https://australianonlinenews.com.au/2020/12/08/engineers-developed-a-method-to-convert-natural-gas-into-a-solid-slashgear/.
- HK News, 10 December 2020, https://hk.on.cc/hk/bkn/cnt/intnews/20201210/bkn-20201210190031276-1210_00992_001.html.
- Energy Industry Review, 11 December 2020, https://energyindustryreview.com/oil-gas/new-method-to-store-natural-gas-safely-and-affordably/.
- Siol.net Blog, 19 December 2020, https://siol.net/digisvet/novice/revolucionarno-odkritje-za-velike-uporabnike-naravnega-plina-video-541607.
- Medium, 23 December 2020, https://medium.com/technicity/scientists-develop-a-faster-safer-way-to-convert-natural-gas-into-a-solid-c13a9028fc1f.
- Science et Vie French Science Magazine, 7 March 2021, https://www.science-et-vie.com/nature-et-enviro/ingenierie-chimique-une-nouvelle-technique-permet-de-stocker-facilement-le-gaz-naturel-61550.

- My collaboration project on developing a new cooling technology for data centres with Keppel and SLNG (Singapore LNG) has been highlighted in several media/news outlets worldwide (Straits Times, Business Times, Hydrocarbon Engineering, Maritime Global News, O&G, LNG World News, FN Talk, Marine Link, Cooling Post, Data Economy, LNG Industry UK, Data Center Dynamics etc).
  - The Business Times Online, 21 October 2019, NUS, Keppel and SLNG tie-up to develop better cooling technology for data centres
  - Singapore Business Review, 21 October 2019, NUS, Keppel, SLNG to build cooling tech for data centres
  - Hydrocarbon Engineering, 21 October 2019, NUS, Keppel and SLNG to develop energy-efficient cooling technology for data centres
  - Maritime Global News, 21 October 2019, Singapore: LNG Terminal to Develop Data Center
  - O&G Links, 21 October 2019, Trio to develop LNG-based data center cooling technology
  - LNG World News, 21 October 2019, Trio to develop LNG-based data center cooling technology
  - Infomarine, 21 October 2019, Singapore to use its LNG terminal to develop data center cooling technology
  - Freight Comms, 21 October 2019, NUS, Keppel and SLNG join forces to develop new energy-efficient cooling technology for data centres
  - FN Talk, 21 October 2019, NUS, Keppel, SLNG in tie-up to develop better cooling technology for data centres
  - Safety 4 Sea, 21 October 2019, Singapore to use its LNG terminal to develop data center cooling technology
  - Marine Link, 21 October 2019, Singapore: LNG Terminal to Develop Data Center
  - LNG Industry (United Kingdom), October 21, 2019, Trio join forces to develop LNG-cooling system for data centres

- DatacenterDynamics, 22 October 2019, Singapore's LNG Terminal could be used to cool data centers

- Outreach programme on methane hydrates in China's CCTV, conducted in Qingdao 2018.
- Quoted by Channel News Asia Insider in an article "Stepping on the gas to keep Singapore's lights burning"
- Linga Lab research featured in a Channel News Asia special programme "*Powering the Future – Keeping Cool with LNG*" in 2018
- Interviewed by The National for an expert opinion on natural gas hydrates
- Interviewed by BBC News for an expert opinion on natural gas hydrates.
- Interviewed by The World Weekly for an expert opinion on natural gas hydrates.
- My project on SNG technology for natural gas storage has been highlighted in news: Special mention in Straits Times, Lianhe Zaobao and Channel News Asia.
- Publication [*Chem Eng J* (2016) 290, 161-173] was highlighted in Science Last Fortnight News.
- My hydrate based desalination project utilizing LNG cold energy featured in Business Times.

TEACHING RANGE

I have taught large (250+ students) and small classes (up to 75 students) for both undergraduate and postgraduate programs that spans across core and elective modules

- CN2125 – Heat and Mass Transfer
- CN4122 – Process Synthesis and Simulation
- CN4123 – Design Project, Cost estimation and profitability analysis
- CN4248 – Sustainable Process Engineering
- CN5192 – Future Fuel Options: Prospects and Technologies
- CN5194 – Carbon Capture Storage and Utilization
- CN5202 – Selected Topics in Energy Systems
- EG2401 – Engineering Professionalism

PROFESIONAL SERVICE TO SCIENTIFIC COMMUNITY

2025 International Scientific Committee, 31st PPC Symposium on Petroleum, Petrochemicals, and Polymers, Bangkok, June 25-26, 2025.

2025 Expert Roundtable Discussion on Decarbonization with well-known scientists by UN Secretary-General's Scientific Advisory Board, a group of independent scientists and UN chief scientists tasked with advising the UN system.

2024 Symposium Chair, Symposium in honour of Peter Englezos, Canadian Society of Chemical Engineering (CSChE) conference, October 6-9, 2024, Toronto, Canada.

2023 Conference Chair, 10th International Conference on Gas Hydrates (ICGH10), Singapore, July 9 – 14, 2023, Suntec City Conference Centre, Singapore.

2023 International Scientific Committee, 29th PPC Symposium on Petroleum, Petrochemicals, and Polymers, Bangkok, May 25, 2023.

2022 Session Chair, European Conference on Gas Hydrates, June 13-18, Lyon France, 2022.

2022 Scientific Committee Member, European Conference on Gas Hydrates, June 13-18, Lyon France, 2022.

2022 International Scientific Committee, 28th PPC Symposium on Petroleum, Petrochemicals, and Polymers, Bangkok, June 23, 2022.

2021 International Scientific Committee, 27th PPC Symposium on Petroleum, Petrochemicals, and Polymers, Bangkok, July 1, 2021.

2021 National Engineers Day (NED) organizing committee member, Singapore.

2020 International Scientific Committee, 26th PPC Symposium on Petroleum, Petrochemicals, and Polymers, Bangkok, July 23, 2020.

2019 Session Chair/Co-chair and Organizer of two sessions on “Gas Hydrates Science and Engineering”, AIChE Meeting, November 2019, Orlando USA.

2019 Session Chair, International Conference on Applied Energy (ICAE2019), August 2019, Vasteras, Sweden.

2018 Session Chair/Co-chair and Organizer of one session on “Gas Hydrates Science and Engineering”, AIChE Meeting, October 2018, Pittsburgh USA.

2018 Session Chair, International Symposium on In-situ Modification of Deposit Properties for Improving Mining, September 17-19, Taiyuan, China.

2018 Session Chair for two sessions, International Conference on Applied Energy (ICAE2018), August 2018, Hong Kong.

2018 Hydrate Youth Forum Organizing Committee Member, 2nd International Deepwater Oil and Gas Engineering Frontier Technology Seminar and International Hydrate Youth Forum, Qingdao, July 26-28, P R China.

2018 Session Chair, International Conference on Desalination (InDA2018), India, April 20-21, 2018.

2018 Session Chair, Offshore Technology Conference Asia (OTC Asia – 2018), Kuala Lumpur, Malaysia.

2018 Programme Committee Member, Society of Mining, Metallurgy and Exploration (SME), Offshore Technology Conference Asia (OTC Asia – 2018), Kuala Lumpur, Malaysia.

2017 Coordinator for “Gas Hydrates” joint workshop, 10th World Congress of Chemical Engineering, WCCE10 – 2017, 1 – 5 October, Barcelona, Spain.

2017 Session Chair/Co-Chair, 9th International Conference on Gas Hydrates, ICGH9, Denver, June 24-30, USA.

2017 Scientific Committee Member, 3rd International Conference on Fluid Flow, Heat and Mass Transfer, FFHMT – 2017, Ottawa, Canada.

2016 Secretary and Webmaster, AIChE Singapore Local Section, 2014 – 2021.

2016 Session Chair/Co-chair and Organizer of two sessions on “Gas Hydrates Science and Engineering”, AIChE Meeting, November 2016, San Francisco USA.

2016 Scientific Committee Member, Sriwijaya International Conference on Engineering, Science and Technology, SICEST – 2016, Bangka Island, Indonesia.

2016 Session Chair, International Conference on Applied Energy (ICAE2016), October 2016, Beijing China. Organized three sessions on “gas hydrates” with Professor Xiaosen Li (CAS-GIEC, China).

2016 Session Chair, Process Systems Engineering Asia (PSE Asia 2016), Tokyo, July 24-27.

2016 Scientific Committee Member and Conference Secretary, 8th Global Chinese Chemical Engineers Symposium, GCCES-8 – 2016, Singapore.

2016 Scientific Committee Member and Conference Secretary, 15th International Conference on Sustainable Energy Technologies, SET – 2016, Singapore.

2016 Scientific Committee Member, 3rd International Conference on Fluid Flow, Heat and Mass Transfer, FFHMT – 2016, Ottawa, Canada.

2015 Technical Program Committee Member, 65th Canadian Society of Chemical Engineering (CSChE) Conference, Calgary, 2015.

2015 Session Chair/Co-chair, 65th Canadian Society of Chemical Engineering (CSChE) Conference, Calgary October, 2015.

2015 Organized 3 special sessions on "CO_2 hydrates and their applications" in the 8th International Conference on Carbon Dioxide Utilization (ICCDU), July 2015.

2015 Local Organizing Committee Member, 8th International Conference on Carbon Dioxide Utilization (ICCDU), July 2015.

2015 Scientific Committee Member, 2nd International Conference on Fluid Flow, Heat and Mass Transfer, FFHMT – 2015, Ottawa, Canada.

2014 Breakout Session: Conducted a breakout discussion session on natural gas hydrate recovery along with Professor Richard Coffin (Texas A&M) and Professor Sudeep Punnathanam (IISc Bangalore India) in the Fiery Ice Workshop in Hyderabad India.

2014 Session Chair/Co-Chair, 8th International Conference on Gas Hydrates, ICGH 2014, Beijing, July 28-Aug 01.

2014 Session Chair for "Hydrates", In 6th International Conference on Applied Energy, ICAE 2014, Taipei, May 31 - June 2.

2014 Scientific Committee Member, New Trends in Transport Phenomena, NTTP – 2014, Ottawa, Canada.

2013 Session Chair/Co-Chair, International Conference on Electrochemical Materials and Technologies for Clean Sustainable Energy, CSE 2013, Guangzhou, July 5-9.

2012 Local Organizing Committee Member, 11th International Symposium on Process Systems Engineering Conference, July 2012.

2012 Co-Guest Editor, 14th Asia Pacific Confederation of Chemical Engineering Congress Conference Proceedings, Singapore, February 21-24.

2012 Scientific/Technical Program Committee Member, 14th Asia Pacific Confederation of Chemical Engineering Congress, Singapore, February 21-24.

2011 Contributed to the primer, "Carbon Capture and Storage/Utilization Technology Primer: A Summary" for the National Climate Change Secretariat and National Research Foundation.

2008 Student Volunteer for the 6th International Conference on Gas Hydrates (ICGH 2008) held in Vancouver (July 2008).

PLENARY, KEYNOTE, AWARD, INVITED TALKS AND SEMINARS

(IT78) Keynote Speaker, 2025 International Membrane Conference in Taiwan (IMCT) and International Symposium on AI-Driven Carbon-Neutral Technologies and Circular Bioeconomy (AICNCB), Taoyuan, 15-16 May 2025. Title: A cool way to store carbon dioxide via clathrate hydrates permanently.

(IT77) Keynote Speaker, Global Conference on Decarbonization of Energy and Materials (GCDEM), Singapore, 26-28 November 2024. Title: A cool way to store carbon dioxide via clathrate hydrates permanently.

(IT76) Invited Speaker, AIChE Annual Meeting, San Diego, 27 October-1 November 2024. Title: Carbon Dioxide Sequestration Via Gas Hydrates: A Potential Pathway Towards Decarbonization.

(IT75) Keynote Speaker, 10th Molecular Thermodynamics and Molecular Simulation (MTMS) Conference, Japan, Aug 27-29, 2024. Title: A cool way to store carbon dioxide via clathrate hydrates permanently.

(IT74) Plenary Speaker, 19th China Renewable Energy Conference, Natural Gas Hydrate Symposium, Xi'an China, Aug 16-18, 2024. Title: Sustainable Energy Storage Technologies via Clathrate Hydrates.

(IT73) Keynote Speaker, 33rd CRSI-ACS Symposium Series in Chemistry, Hyderabad India, July 04-06, 2024. Title: A sustainable way to store carbon dioxide via clathrate hydrates permanently.

(IT72) Keynote Speaker, CUE2024 - Applied Energy Symposium and Forum: Low Carbon Cities and Urban Energy Systems, Shenzhen China, May 11-13, 2024. Title: Clathrate hydrates: A cool way to store carbon dioxide permanently.

(IT71) Keynote Speaker, 13th Natural Gas Conversion Symposium (NGCS13), Xiamen China, Apr 21-25, 2024. Title: A sustainable way to store carbon dioxide via clathrate hydrates in deep oceanic sediments.

(IT70) Keynote Speaker, 104th Chemical Society of Japan Annual Meeting, Tokyo Japan, Mar 18-21, 2024. Title: Clathrate hydrates: A cool way to store carbon dioxide permanently.

(IT69) Plenary Speaker, 5th International Technical Symposium on Deepwater Oil and Gas Engineering & 4th International Youth Forum on Gas Hydrate, Qingdao China, Oct 13-15, 2023. Title: Clathrate Hydrates: A "Cool" Way to Capture and Store CO_2

(IT68) Plenary Speaker and Chief Guest, 2nd International Conference on Clean Energy. Materials and Technologies (ICCEMT 2023), Dehradun, India, 20-22 September 2023. Title: Clathrate Hydrates: A "Cool" Way to Store CO_2.

(IT67) Plenary Speaker, 29th PPC Symposium on Petroleum, Petrochemicals, and Polymers, Bangkok, Thailand, 25 May 2023. Clathrate Hydrates: A "Cool" Way to Capture and Store CO_2.

(IT66) Keynote Speaker, China Renewable Energy Academic Conference, Nanjing, China, April 1-3, 2023 (webinar). Title: Clathrate hydrate, what can Engineers do with it?

(IT65) Keynote Speaker, Energy Summit, Chennai, India, December 8-9, 2022. Title: Energy Storage via Clathrate Hydrates.

(IT64) Keynote Speaker, Molecular Materials Conference, Chennai, India, December 5-7, 2022. Title: Clathrate Hydrates: A "Cool" Way to Capture/Store CO_2.

(IT63) Keynote Speaker, International Conference on Chemical Engineering Enabling Transition Towards Sustainable Future (ChemTSF), Roorkee, India, September 8-10, 2022. Title: Long term and stable CO_2 hydrate-based storage.

(IT62) Keynote Speaker, 28th PPC Symposium on Petroleum, Petrochemicals, and Polymers, Bangkok, Thailand, June 23, 2022 (virtual conference). Title: Long term and stable CO_2 hydrate-based storage.

(IT61) Plenary Speaker, 3rd Youth Hydrate Conference, Qingdao, China, December 20-21, 2021 (webinar). Title: Clathrate hydrate, what can Engineers do with it?

(IT60) Plenary Speaker, GDR Gas Hydrates 2021, France Gas Hydrate Community conference, France, October 21-22, 2021 (webinar). Title: Innovative applications with clathrate hydrate as technology enabler.

(IT59) Invited Speaker, Challenges, and opportunities in accelerating low carbon energy transitions, Singapore Energy Centre (SgEC), Singapore, October 12, 2021 (webinar). Title: Long term and stable CO_2 hydrate-based storage.

(IT58) Keynote Speaker, Chemical Engineering Association 2022 inauguration, National Institute of Technology, Tiruchirappalli India, September 28, 2021 (webinar). Title: Clathrate hydrate, what can Engineers do with it?

(IT57) Keynote Speaker, Workshop "CO_2 capture, sequestration, storage and utilization for a greener tomorrow" Department of Chemical Engineering, BITS Pilani Hyderabad Campus, India, September 04, 2021 (webinar). Title: Long term and stable CO_2 hydrate-based storage.

(IT55) Keynote Speaker, 27th PPC Symposium on Petroleum, Petrochemicals, and Polymers, Bangkok, Thailand, July 1, 2021 (virtual conference). Title: Clathrate Hydrates for Energy Storage.

(IT54) Award Lecture, 86th Annual Conference of the Society of Chemical Engineers, Japan (SCEJ), Osaka, Japan, March 19-21, 2021. As part of my Outstanding Asia Researcher and Engineer award. Title: Clathrate hydrate, what can Engineers do with it?

(IT53) Keynote Speaker, 2nd International Symposium on In-situ Modification of Deposit Properties for Improving Mining, November 06-08, 2020, Taiyuan (via Webinar), China, Title: Is Methane Hydrate a Boon or a Bane?

(IT52) Invited Speaker, Norway-Singapore Science Week Webinar Series, Title: Carbon Dioxide Capture and Storage via Clathrate Hydrates: Prospects and Challenges, November 02, 2020.

(IT51) Invited Speaker, Norway-Singapore Science Week Webinar Series, Title: LNG Cold Energy Utilization: Prospects and Challenges, October 31, 2020.

(IT50) Public Panel discussion, VAIBHAV Summit, October 15, 2020. Invited public panel presentation and discussion on Energy Vertical (Advance Fossil and Nuclear Technologies) by the Government of India. Other panel members included, Prof. Mukul Sharma (Texas A&M), Prof. Jay Gore (Purdue University) etc.

(IT49) Public Lecture, Seminar series on Clean Water: Emerging Frontiers, Online, July 01, 2020. Invited Public lecture jointly hosted by International Center for Clean Water and IIT Madras. Title: Hydrate based Desalination (HyDesal) for Clean Water.

(IT48) Plenary Speaker, International Conference on Innovations in Thermo-Fluid Engineering and Sciences [ICITFES-2020], NIT Rourkela, India, February 10-12, 2020., declined due to COVID-19.

(IT47) Invited Industry Webinar, ExxonMobil Research and Engineering (EMRE), Annandale, NJ USA, January 20, 2020. Title: CO_2 Storage via Clathrate Hydrates: Prospects and Challenges?

(IT46) Plenary Speaker, International Symposium on Natural Gas Value Chain [ISNG-2019], Chennai India, December 10-11, 2019. Title: Methane Hydrates: A Future Clean Energy Resource.

(IT45) Invited Speaker, Joint workshop on Energy by NUS and University of Calgary, Calgary, July 7-9, 2019. Title: Significance of gas hydrate research.

(IT44) Keynote Speaker, 25th PPC Symposium on Petroleum, Petrochemicals, and Polymers, Bangkok, May 25, 2019. Title: Clathrate Hydrate Technologies to Strengthen Energy-Water Nexus.

(IT43) Invited Speaker, 15th International Conference on Properties and Phase Equilibria for Products and Process Design (PPEPPD 2019), Vancouver, Canada May 12-16, 2019. Title: Solidified Natural Gas Technology (SNG) via Clathrate Hydrates for Gas Storage.

(IT42) Invited Speaker, Advances in Gas Hydrate Production Technology, Offshore Technology Conference (OTC2019), Houston, USA, May 6-9, 2019. Title: Effect of hydrate saturation on the production behaviour of aqueous-rich methane hydrate bearing sediment via depressurization.

(IT41) Keynote Speaker, International Conference on Unconventional Energy Resources (ICUER 2019), RGIPT, Rae Bareli, India, February 28-March 01, 2019. Title: Methane Hydrates: A Future Clean Energy Resource.

(IT40) Keynote Speaker, 2nd International Conference on Energy and Power (ICEP 2018), Sydney, Australia, December 13-15, 2018. Title: Clathrate Hydrate: A Technology Enabler to Strengthen Energy-Water Nexus.

(IT39) Keynote Speaker, International Conference on Advances and Challenges for Sustainable Ecosystem, December 05-08, Trichy, India, 2018. Title: Sustainable Hydrate Energy Technologies.

(IT38) Keynote Speaker, International Symposium on In-situ Modification of Deposit Properties for Improving Mining, September 17-19, Taiyuan, China, 2018. Title: Energy Recovery from Natural Gas Hydrates: Prospects and Challenges.

(IT37) Keynote Speaker, 2nd International Technical Symposium on Deepwater Oil and Gas Engineering & International Youth Forum on Gas Hydrate, Qingdao China, July 26-28, 2018.

(IT36) Keynote Speaker, 24th PPC Symposium on Petroleum, Petrochemicals, and Polymers, Bangkok, June 05, 2018. Title: Clathrate Hydrate: A Technology Enabler to Strengthen Energy-Water Nexus.

(IT35) Invited Speaker, Society of Petroleum Engineering Singapore Section, Singapore, April 26, 2018. Title: Energy Recovery from Natural Gas Hydrates: Prospects and Challenges.

(IT34) Keynote Speaker, International Conference on Desalination (InDA2018), India, April 20-21, 2018. Title: Clathrate Hydrate: A Technology Enabler to Strengthen Energy-Water Nexus.

(IT33) Invited Speaker, ExxonMobil Singapore Energy Center Workshop, Singapore, February 27, 2018. Title: Hydrate Energy Technologies at NUS.

(IT33) Keynote Speaker, World Congress of Chemical Engineering (WCCE10), Barcelona, Spain, October 2, 2017. Title: SNG Technology for Gas Storage via Clathrates.

(IT32) Invited Speaker, First China-Singapore Frontier Technology Innovation Conference, Chongqing, July 16, 2017. Title: Gas Hydrate: A Technology Enabler for Innovative and Sustainable Technologies.

(IT31) Invited Speaker, 23rd PPC Symposium on Petroleum, Petrochemicals, and Polymers, Bangkok, May 23, 2017. Title: Energy Recovery from Natural Gas Hydrates: Prospects and Challenges.

(IT30) Keynote Speaker, International Workshop on Gas Hydrates, Guangzhou, China, April 10, 2017. Title: Clathrate Hydrate – A Technology Enabler for Sustainable Applications.

(IT29) Invited Speaker, International Conference on Sustainable Development for Energy and Environment (ICSDEE2017), Pune India, January 17, 2017. Title: Clathrate hydrate: A technology enabler for innovative and sustainable applications.

(IT28) Keynote Speaker, International Conference on Energy and Power (ICEP 2016), Melbourne, Australia, December 14-16, 2016. Title: Clathrate Hydrates: Innovative Applications by Utilizing LNG Cold Energy.

(IT27) Invited Speaker, Workshop on Public Understanding of Risk in Asia, Singapore, October 4, 2016. Title: Hydrate Risk Management.

(IT26) Keynote Speaker, 2nd International Conference on Harnessing Engineering Technology & Innovation for Sustainable Growth (HETIS 2016), Chandigarh, India, Sep 29th – Oct 1st, 2016. Title: Clathrate hydrate: A technology enabler for innovative and sustainable applications.

(IT25) Invited Speaker, Keppel-NUS Corporate Laboratory Workshop, Singapore, August 15, 2016. Title: Hydrate technologies for LNG cold energy utilization.

(IT24) Keynote Speaker, Process Systems Engineering Asia (PSE Asia 2016) Conference, Tokyo, Japan, July 24-27, 2016. Title: The clathrate hydrate process for innovative applications.

(IT23) Keynote Speaker, International Symposium on Coal Mine Disaster Dynamics and Control, Chongqing China, May 27-28, 2016. Title: Gas hydrates: A future energy resource and a technology enabler for clean energy applications.

(IT22) Invited Speaker, 22nd PPC Symposium on Petroleum, Petrochemicals, and Polymers, Bangkok, May 24, 2016. Title: Clathrate Hydrates: Opportunity to develop innovative applications targeting Energy-Water nexus.

(IT21) Invited Speaker, Asia Pacific Ceramic Cooperation (APCC) Summit, Singapore, February 29, 2016. Title: Clathrate Hydrates: Science, Engineering and Technological Developments.

(IT20) Keynote Speaker, International Workshop on Future Energy Resources, IWFER 2015, Chennai, India, December 22, 2015. Title: Energy Recovery from Natural Gas Hydrates: Prospects and Challenges.

(IT19) Invited Speaker, International Conference on Advances in Energy Research (ICAER 2015), Mumbai, December 15-17, 2015. Title: Energy Recovery from Natural Gas Hydrates: Prospects and Challenges.

(IT18) Invited Speaker, American Institute of Chemical Engineers (AIChE) Annual Meeting, Salt Lake City USA, November 8-13, 2015. Title: Semiclathrate hydrates for CO_2 capture: Prospects and Challenges.

(IT17) Invited Speaker, Canadian Society of Chemical Engineering (CSChE) Conference, Calgary Canada, October 4-7, 2015. Title: Energy Recovery from Natural Gas Hydrates: Prospects and Challenges.

(IT16) Invited Speaker, Sustainability, Environment & Energy Research (SEER), NUS Singapore, August 27, 2015. Title: Energy Recovery from Natural Gas Hydrates: Prospects and Challenges.

(IT15) Invited Speaker, Technology Sharing Session for Oil & Gas Industry, Singapore, May 19, 2015. Title: Energy Recovery from Natural Gas Hydrates: Prospects and Challenges.

(IT14) Invited Speaker, 21st PPC Symposium on Petroleum, Petrochemicals, and Polymers, Bangkok, April 21, 2015. Title: The clathrate hydrate process for innovative applications.

(IT13) Invited Speaker, Joint workshop on Energy by NUS-IITB, Singapore, February 25, 2015. Title: Energy Recovery from Natural Gas Hydrates: Prospects and Challenges.

(IT12) Invited Speaker, 9th International Workshop on Methane Hydrates Research & Development, Hyderabad, India, November 11, 2014. Title: Energy Recovery from Natural Gas Hydrates: Prospects and Challenges.

(IT11) Invited Speaker, 14th CHEMECA conference, Perth, Australia, October 1, 2014. Title: A novel method to capture carbon dioxide using the hydrate based gas separation (HBGS) process.

(IT10) Keynote Speaker, 5th Sriwijaya International Seminar on Energy and Environmental Science and Technology, SISEEST 2014, Palembang, Indonesia, September 10, 2014. Title: The clathrate process for CO_2 Capture and Desalination: Opportunities and Challenges.

(IT9) Invited Speaker, 20th PPC Symposium on Petroleum, Petrochemicals, and Polymers, Bangkok, April 22, 2014. Title: Hydrogen storage in clathrate hydrates.

(IT8) Invited Speaker, Chemcon Conference, Mumbai, India, December 29, 2013. Title: Hydrate Based Gas Separation (HBGS) process for carbon dioxide capture.

(IT7) Keynote Speaker, International Conference on Electrochemical Materials and Technologies for Clean Sustainable Energy, CSE 2013, Guangzhou, China, July 9, 2013. Title: Hydrogen storage in clathrate hydrates.

(IT6) Invited Speaker, 19th PPC Symposium on Petroleum, Petrochemicals, and Polymers, Bangkok, April 21, 2013. Title: Hydrate based gas separation (HBGS) process for pre-combustion capture of carbon dioxide from IGCC power plants.

(IT5) Keynote Speaker, National Level Seminar on Natural Gas Hydrates, Madurai, India, October 20, 2012. Title: Gas hydrates: An opportunity for innovative technologies and a future energy resource.

(IT4) Invited Speaker, International Workshop on Natural Gas Hydrates - Exploration and Production, IIT Madras: Madras, India, August 9, 2012. Title: Gas hydrates: An opportunity for innovative technologies and a future energy resource.

(IT3) Invited Speaker,14th Asia Pacific Confederation of Chemical Engineering Conference Singapore, February 23, 2012. Title: The Clathrate Hydrate Process for Pre-combustion Capture of CO2 from IGCC Power Plants.

(IT2) Invited Speaker, International Symposium on Gas Hydrates and its Applications, Ulsan City, Korea, May 15, 2009. Title: The Clathrate Hydrate Process for Pre and Post Combustion Capture of Carbon Dioxide.

(IT1) Invited Speaker, International Conference on Sustainable Petroleum Development, Beijing, China, May 8, 2007. Title: The Clathrate Hydrate Process for Pre and Post Combustion Capture of Carbon Dioxide.

(IS66) Invited Seminar, National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan, Aug 30, 2024. Title: Sustainable Energy Storage Technologies via Clathrate Hydrates.

(IS65) Invited Seminar, University of Hyderabad, India, July 05, 2024. Title: Sustainable Energy Technologies via Clathrate Hydrates.

(IS64) Invited Seminar, Guangzhou Institute of Energy Conversion (CAS-GIEC), China, April 25, 2024. Title: Sustainable Energy Technologies via Clathrate Hydrates.

(IS63) Invited Seminar, Tianjin University, China, October 16, 2023. Title: Clathrate Hydrates: A cool way to store carbon dioxide.

(IS62) Invited Seminar, Qingdao Institute of Marine Geology, China, October 13, 2023. Title: Clathrate Hydrates: A cool way to store carbon dioxide.

(IS61) Invited Seminar, Peking University, China, August 05, 2023. Title: Clathrate Hydrates: A cool way to store carbon dioxide.

(IS60) Invited Industry Seminar, CNOOC Research Institute, China, August 04, 2023. Title: Clathrate Hydrates: A cool way to store carbon dioxide.

(IS59) Invited Seminar, China University of Petroleum Beijing, China, August 04, 2023. Title: Clathrate Hydrate Research at NUS.

(IS58) Invited Seminar, Dalian University of Technology, China, August 02, 2023. Title: Energy Storage via Clathrate Hydrates.

(IS57) Invited Institute Seminar, Tsinghua University Shenzhen, China, August 01, 2023. Title: Clathrate Hydrates: A cool way to capture and store carbon dioxide.

(IS56) Invited Seminar, Guangzhou Marine Geological Society (GMGS), China, July 31, 2023. Title: Clathrate Hydrates: A cool way to store carbon dioxide.

(IS55) Invited Seminar, Frontiers in Chemical Engineering webinar series, Indian Institute of Technology Guwahati (IITG), India, July 29, 2022. Title: Innovative applications with clathrate hydrate as a technology enabler.

(IS54) Invited Seminar, Chemical and Biomolecular Engineering, National University of Singapore, Singapore, May 04, 2022. Title: Innovative applications with clathrate hydrate as a technology enabler.

(IS53) Invited Seminar, CSIR Indian Institute of Petroleum (CSIR-IIP), India, April 21, 2022. Title: Long term and stable CO_2 hydrate based storage (CO_2-HyStore)

(IS52) Invited Seminar, Department of Chemical Engineering, Indian Institute of Technology Roorkee (IIT-R), India, April 19, 2022. Title: Innovative applications with gas hydrate as a technology enabler

(IS51) Invited Webinar series, Centre for Desalination Technologies, King Abdulaziz University, May 06, 2021. Title: Gas Hydrate Applications: Future Energy Storage

(IS50) Invited Webinar series, Centre for Desalination Technologies, King Abdulaziz University, April 29, 2021. Title: Gas Hydrate Applications: Gas Storage

(IS49) Invited Webinar series, Centre for Desalination Technologies, King Abdulaziz University, April 22, 2021. Title: Gas Hydrate Applications: Hydrate based Desalination (HyDesal)

(IS48) Invited Webinar, Department of Chemical Sciences, Tata Institute of Fundamental Research (TIFR), India, October 26, 2020. Title: Clathrate hydrate, what can Engineers do with it?

(IS47) Invited Seminar, Department of Chemical Engineering, Vellore Institute of Technology (VIT), India, December 12, 2019. Title: Clathrate Hydrate, what can Engineers do with it?

(IS46) Invited Workshop Seminar, Indian Institute of Technology Madras, Chennai, India, December 9, 2019, as part of the SPARC programme with IITM. Title: Methane Hydrates: A Future Clean Energy Resource

(IS45) Invited Industry Seminar, ExxonMobil Research and Engineering (EMRE), Annandale, NJ USA, November 18, 2019. Title: Clathrate Hydrate, what can Engineers do with it?

(IS44) Invited Institute Seminar, Center for Gas Hydrate Research, Guangzhou Institute of Energy Conversion - CAS, Guangzhou, China, October 25, 2019, as part of my Visiting Professorship. Title: Clathrate Hydrate, what can Engineers do with it?

(IS43) Invited Seminar, Department of Chemical Engineering, South China University of Technology (SCUT), P R China, October 24, 2019. Title: Clathrate Hydrate, what can Engineers do with it?

(IS42) Invited Seminar, Faculty of Engineering, China University of Geosciences Wuhan (CUG Wuhan), P R China, October 23, 2019. Title: Methane Hydrates: A Future Clean Energy Resource

(IS41) Invited Seminar, Department of Chemical Engineering, Sun Yat Sen University Zhuhai, P R China, October 21, 2019. Title: Clathrate Hydrate, what can Engineers do with it?

(IS40) Invited Seminar, Centre for Chemical Engineering (SPIN), Ecole des Mines de Saint-Étienne, France, July 18, 2019. Title: Clathrate Hydrate, what can Engineers do with it?

(IS39) Invited Seminar, Department of Chemical Engineering, Indian Institute of Technology Madras (IIT-M), India, June 20, 2019. Title: Clathrate Hydrate, what can Engineers do with it?

(IS38) Invited Seminar, Department of Mechanical Engineering, National Institute of Technology Trichy (NIT-T), India, December 06, 2018. Title: Sustainable Hydrate Energy Technologies

(IS37) Invited Seminar, Department of Chemical Engineering, National Taiwan University (NTU), Taipei, Taiwan, November 12, 2018. Title: Natural gas hydrates: A boon or a bane.

(IS36) Invited Seminar, Department of Chemical Engineering, National Taiwan University of Science and Technology (NTUST), Taipei, Taiwan, November 10, 2018. Title: Gas hydrate – A technology enabler to strengthen energy-water nexus.

(IS35) Invited Seminar, Department of Chemical Engineering, China University of Petroleum (CUP Beijing), China, September 20, 2018. Title: Clathrate hydrate: A technology enabler for innovative and sustainable applications.

(IS34) Invited Seminar, Department of Ocean Engineering, Harbin Engineering University (HEU), China, August 04, 2018. Title: Hydrate Energy Sustainable Technologies.

(IS33) Invited Seminar, Department of Mining and Safety Engineering, Heilongjiang University of Science and Technology (HUST), China, August 03, 2018. Title: Hydrate Energy Technologies.

(IS32) Invited Seminar, Faculty of New Energy and Environment, Jilin University, China, August 01, 2018. Title: Hydrate Energy Technologies.

(IS31) Invited Seminar, Department of Energy and Power Engineering, Dalian University of Technology (DUT), China, July 30, 2018. Title. Clathrate hydrate: A technology enabler for innovative and sustainable applications.

(IS30) Invited Seminar, Department of Mechanical Engineering, National Institute of Technology Trichy (NIT-T), India, April 23, 2018. Title: Clathrate Hydrate: A Technology Enabler for Sustainable and Innovative Applications.

(IS29) Invited Seminar, College of Petroleum and Geosciences, King Fahd University of Petroleum and Minerals (KFUPM), Saudi Arabia, September 20, 2017. Title: Clathrate Hydrate: A Technology Enabler for Sustainable and Innovative Applications.

(IS28) Invited Seminar, Clean Combustion Research Center, King Abdullah University of Science and Technology (KAUST), Saudi Arabia, September 18, 2017. Title: Gas hydrate: A technology enabler for innovative and sustainable applications.

(IS27) Invited Seminar, Department of Mechanical Engineering, Shanghai Jiao Tong University, China, July 21, 2017. Title: Gas Hydrate: A Technology Enabler for Innovative and Sustainable Applications.

(IS26) Invited Seminar, Key Lab of Gas Hydrate, Qingdao Institute of Marine Geology, China, July 19, 2017. Title: Energy Recovery from Natural Gas Hydrates: Prospects and Challenges.

(IS25) Distinguished Lecture (Invited), Department of Power Engineering and State Key Lab of Coal Mine Disaster Dynamics and Control, Chongqing University, China, July 17, 2017. Title: Energy Recovery from Natural Gas Hydrates: Prospects and Challenges.

(IS24) Invited Seminar, Department of Chemical Engineering, Indian Institute of Technology Delhi, India, September 29, 2016.

(IS23) Invited Seminar, Department of Mechanical Engineering, Keio University, Japan, June 28, 2016.

(IS22) Invited Seminar, Department of Chemical Engineering, National Taiwan University (NTU), Taiwan, June 22, 2016.

(IS21) Invited Seminar, Department of Chemical Engineering, National Tsing Hua University (NTHU), Taiwan, June 21, 2016.

(IS20) Invited Seminar, Center for Gas Hydrate Research, Guangzhou Institute of Energy Conversion - CAS, Guangzhou, China, June 1, 2016.

(IS19) Invited Seminar, Department of Energy Engineering, Dalian University of Technology (DUT) Dalian, China, May 30, 2016.

(IS18) Invited Seminar, Department of Chemical Engineering, Universiti Teknologi Petronas (UTP) Ipoh, Malaysia, January 28, 2016.

(IS17) Invited Seminar, Department of Chemical Engineering, Sri Ram Engineering College, Chennai, India, January 18, 2016.

(IS16) Invited Seminar, Inaugural speaker in the seminar series jointly held by IIChE- Pune chapter and the National Chemical Laboratory in Pune, India, December 18, 2015.

(IS15) Invited Seminar, Department of Chemical Engineering, Indian Institute of Technology (IIT) Bombay, December 14, 2015.

(IS14) Invited Seminar, Department of Chemical Engineering, Rice University, Houston, November 13, 2015.

(IS13) Invited Seminar, Department of Petroleum Engineering, University of Tulsa, Tulsa, November 12, 2015.

(IS12) Invited Seminar, Department of Ocean Engineering, Indian Institute of Technology, Madras, July 23, 2015.

(IS11) Invited Seminar, Center for Hydrate Research, Colorado School of Mines, Golden, June 22, 2015.

(IS10) Invited Seminar, National Geophysical Research Institute (CSIR-NGRI), Hyderabad, February 19, 2015.

(IS9) Invited Seminar, Indian Institute of Chemical Technology (CSIR-IICT), Hyderabad, February 19, 2015.

(IS8) Invited Seminar, Chinese Academy of Sciences – Institute of Process Engineering (IPE), Beijing, July 31, 2014.

(IS7) Invited Seminar, Korea Institute of Industrial Technology (KITECH), South Korea, May 22, 2014.

(IS6) Invited Seminar, Korea Advanced Institute of Science and Technology (KAIST), South Korea, May 19, 2014.

(IS5) Invited Seminar, National Chemical Laboratory-Pune, India, December 31, 2013. Title: Innovative applications of gas hydrates.

(IS4) Invited Seminar, The University of British Columbia, Vancouver, Canada, 2013. Title: Progress on the Hydrate Based Gas Separation (HBGS) Process for Carbon Dioxide Capture.

(IS3) Invited Seminar, South China University of Science and Technology, Guangzhou, China, July 11, 2013. Title: Gas hydrates: An opportunity for innovative technologies.

(IS2) Invited Seminar, Center for Gas Hydrate Research, Guangzhou Institute of Energy Conversion - CAS, Guangzhou, China, July 10, 2013. Title: Progress on the Clathrate Hydrate Process for Pre-combustion Capture of CO_2 from IGCC Power Plants.

(IS1) Invited Seminar, Petroleum and Petrochemical College, Chulalongkorn University, Bangkok, Thailand, January 18, 2013. Title: Gas Hydrates: An opportunity for innovative technologies.

LIST OF CONFERENCE PROCEEDINGS AND TALKS

(CP48) Kim, H.; Zheng, J.*; Yin, Z.; Linga, P., Kinetic study of tetra-n-butylammonium bromide hydrate as a cold storage and transport material. In 12th International Conference on Applied Energy (ICAE2020), Bangkok / Virtual, December 1-10, 2020.

(CP47) Wan, Q.; Yin, Z.*; Si, H.; Linga, P., Fluid production behavior of water-saturated hydrate-bearing sediments below the quadruple point of CH4+H2O. In 12th International Conference on Applied Energy (ICAE2020), Bangkok / Virtual, December 1-10, 2020.

(CP46) Bhattacharjee, G.*; Veluswamy, H. P.; Kumar, R.; Linga, P., Studying the kinetics of mixed CH4-THF hydrate formation at ambient temperature. In 11th International Conference on Applied Energy (ICAE), Vasteras, Sweden, August 12-16, 2019.

(CP45) Yin, Z.; Li, H.; Linga, P.*, Multi-Scale Experimental Investigation on the Kinetic Behavior of CH4-Hydrate in Sandy Media. In 11th International Conference on Applied Energy (ICAE), Vasteras, Sweden, August 12-16, 2019

(CP44) Bhattacharjee, G.*; Veluswamy, H. P.; Kumar, R.; Linga, P., Investigation of Kinetics of mixed natural gas hydrate formation for energy storage applications. In 11th International Conference on Applied Energy (ICAE), Vasteras, Sweden, August 12-16, 2019.

(CP43) Yin, Z.*, Moridis, G.; Chong, Z. R..; Linga, P., Kinetic Behavior of CH-Hydrate Formation in a Sandy Medium Induced by a Multi-Stage Cooling Process. In Offshore Technology Conference (OTC) 2019, Kuala Lumpur, May 6-9, 2019.

(CP42) Kumar, A.; Veluswamy, H. P.; Kumar, R.; Linga, P.*, Kinetic Promotion of Mixed Methane-THF Hydrate by Additives: Opportune to Energy Storage. In 10th International Conference on Applied Energy (ICAE), Hong Kong, 2018. *Proceedings published in Energy Procedia (2019), 158, 5287-5292.*

(CP41) Yin, Z.*; Chong, Z. R.; Linga, P., Effect of Multi-Stage Cooling on the Kinetic Behavior of Methane Hydrate Formation in Sandy Medium. In 10th International Conference on Applied Energy (ICAE), Hong Kong, 2018. *Proceedings published in Energy Procedia (2019), 158, 5374-5381.*

(CP40) Zheng, J.*; Loganathan, N. K.; Linga, P., Natural Gas Storage via Clathrate Hydrate Formation: Effect of Carbon Dioxide and Experimental Conditions. In 10th International Conference on Applied Energy (ICAE), Hong Kong, August 22-25, 2018. *Proceedings published in Energy Procedia (2019), 158, 5535-5540.*

(CP39) Chong, Z. R.*; Yin, Z.; Khoo, B. C.; Linga, P., Enhanced gas recovery from water saturated hydrate bearing sediments using horizontal wellbore. In Offshore Technology Conference (OTC) Asia 2018, Kuala Lumpur, March 20-23, 2018.

(CP38) Yin, Z.*, Moridis, G.; Tan, H. K.; Linga, P., Numerical Modelling of Methane Hydrate Dissociation in Sandy Porous Media by Depressurization with a Parametric Study. In Offshore Technology Conference (OTC) Asia 2018, Kuala Lumpur, March 20-23, 2018.

(CP37) Too, J.L.*; Cheng, A.; Linga, P., Fracturing Methane Hydrate in Sand: A Review of the Current Status. In Offshore Technology Conference (OTC) Asia 2018, Kuala Lumpur, March 20-23, 2018.

(CP36) Yin, Z*, Moridis, G.; Tan, H. K.; Linga, P., Calibration and validation of a numerical model against experimental data of methane hydrate formation in a sandy porous medium. In AGU 2017 Fall Meeting, New Orleans, December 10 – 15, 2017.

(CP35) Chong, Z. R.*, Yin, Z.; Zhao, J.; Linga, P., Recovering natural gas from gas hydrates using horizontal wellbore. In World Engineers Summit - Applied Energy Symposium & Forum: Low Carbon Cities & Urban Energy Joint Conference, Singapore, 19-21 July 2017.

(CP34) Yin, Z.*; Chong, Z. R.; Moridis, G.; Linga, P., Numerical modelling of methane hydrate dissociation by depressurization with a flow regime transition study in a vertical flow line. In 9th International Conference on Gas Hydrates, Colorado, USA, June 25 – 30, 2017.

(CP33) He, Z. J.*; Linga, P.; Jiang, J. W, Molecular Dynamics Study on the Formation of Carbon Dioxide Hydrates from Two-Phase System of Water and Liquid Carbon Dioxide. In 9th International Conference on Gas Hydrates, Colorado, USA, June 25-30, 2017.

(CP32) He, Z. J.*; Linga, P.; Jiang, J. W, Effects of Silica and Graphite Surfaces on the Formation of CH_4 Hydrates: A Molecular Simulation Study. In 9th International Conference on Gas Hydrates, Colorado, USA, June 25-30, 2017.

(CP31) Pandey, G*; Nair, V.C.; Linga, P.; Sangwai, J.S. High Pressure Rheological Studies of Methane Hydrate Slurries Formed From Water Hexane Multiphase Systems. In 9th International Conference on Gas Hydrates, Colorado, USA, June 25-30, 2017.

(CP30) Kumar, A.*; Veluswamy, H.P.; Kumar, S.; Kumar, R.; Linga P. Study of Mixed Methane/Tetrahydrofuran Hydrates in Saline Water: Application to Methane Gas Storage & Transportation. In 9th International Conference on Gas Hydrates, Colorado, USA, June 25-30, 2017.

(CP29) Kumar, A.*; Daraboina, N.; Kumar, R.; Linga P. Study of Tetrahydrofuran -Methane Mixed Hydrates Using High Pressure Differential Scanning Calorimetry. In 9th International Conference on Gas Hydrates, Colorado, USA, June 25-30, 2017.

(CP28) Veluswamy, H.P.; Kumar, A.*; Kumar, S.; Kumar, R.; Linga P. Natural Gas Storage Via SNG (Solidified Natural Gas) Technology – Pathway to Commercialization, In 9th International Conference on Gas Hydrates, Colorado, USA, June 25-30, 2017.

(CP27) Zheng, J.*; Khurana, M.; Zhang, P.; Linga P. Systematic evaluation of semiclathrate-based pre-combustion CO2 capture in presence of tetra-n-butylammonium fluoride (TBAF): effect of TBAF concentration and kinetic additives. In 9th International Conference on Gas Hydrates, Colorado, USA, June 25-30, 2017.

(CP26) Zheng, J.*; Khurana, M.; Zhang, P.; Linga P. Kinetic evaluation of clathrate process for pre-combustion capture in fixed bed reactor employing cyclopentane and cyclopentane/ tetrahydrofuran mixture as promoter. In 9th International Conference on Gas Hydrates, Colorado, USA, June 25-30, 2017.

(CP25) Khurana, M.; Zheng, J.*; Linga, P. Process evaluation of pre-combustion CO2 capture from fuel gas using gas hydrates. In 9th International Conference on Gas Hydrates, Colorado, USA, June 25-30, 2017.

(CP24) Too, J.L.*; Linga, P; Palmer, A.; Khoo, B.C.; Cheng, A. Hydraulic Fracturing of High Saturation Hydrate-bearing Sand. In 9th International Conference on Gas Hydrates, Colorado, USA, June 25-30, 2017.

(CP23) Kiran, B; Babu, P*; Karimi, I A; Linga, P. Optimum heat exchanger network for LNG cold energy utilisation in clathrate hydrate based desalination. In 9th International Conference on Gas Hydrates, Colorado, USA, June 25-30, 2017.

(CP22) Babu, P*; Nambiar, A; Linga, P. Optimization of process conditions for clathrate hydrate based desalination process. In 9th International Conference on Gas Hydrates, Colorado, USA, June 25-30, 2017.

(CP21) Chong, Z. R.*; Yin, Z.; Linga, P., Experimental study on the production behavior from hydrate bearing sediment incorporating a horizontal wellbore. In 9th International Conference on Gas Hydrates, Colorado, USA, June 25-30, 2017.

(CP20) Chong, Z. R.*; Yin, Z.; Linga, P., Experimental analysis on the production behavior from hydrate bearing sediment using depressurization method. In 9th International Conference on Gas Hydrates, Colorado, USA, June 25-30, 2017.

(CP19) Chong, Z. R.; Yin, Z.; Linga, P.*, Production behavior from hydrate bearing marine sediments using depressurization approach. In 8th International Conference on Applied Energy, Beijing China, 2016. *Proceedings published in Energy Procedia (2017), 105, 4963-4969.*

(CP18) Veluswamy, H. P.; Premasinghe, K. P.; Linga, P.*, CO_2 Hydrates – Effect of additives and operating conditions on the morphology and hydrate growth. In 8th International Conference on Applied Energy, Beijing China, 2016. *Proceedings published in Energy Procedia (2017), 105, 5048-5054.*

(CP17) Veluswamy, H.P.*; Yang, T.; Linga, P.; Morphology study on hydrogen/tetrabutylammonium bromide semiclathrate crystals. In 8th International Conference on Gas Hydrates, Beijing, 2014.

(CP16) Veluswamy, H.P.*; Yew, J.C.; Linga, P.; Macroscopic kinetics of mixed hydrogen hydrate formation with propane as a promoter. In 8th International Conference on Gas Hydrates, Beijing, 2014.

(CP15) Daraboina, N.*; Linga, P.; Ripmeester, J.; Walker, V.K.; Englezos, P.; The unusual behavior of methane/ethane/propane hydrate crystals in the presence of inhibitor at low pressure. In 8th International Conference on Gas Hydrates, Beijing, 2014.

(CP14) Loh, M.*; Too, J. L.; Falser, S.; Linga, P.; Khoo, B.C.; Palmer, A. C.; Gas production from methane hydrates in a dual wellbore system. In 8th International Conference on Gas Hydrates, Beijing, 2014.

(CP13) Too, J. L.*; Loh, M.; Linga, P.; Khoo, B.C.; Palmer, A. C.; Hydraulic fracturing of hydrates to increase the production of methane hydrates. In 8th International Conference on Gas Hydrates, Beijing, 2014.

(CP12) Mekala, P.; Babu, P.*; Sangwai, J.S.; Linga, P., Methane hydrate formation and dissociation in seawater and silica sand. In 8th International Conference on Gas Hydrates, Beijing, 2014.

(CP11) Babu, P.*; Ho, C.Y.; Kumar, R.; Linga, P., Effect of liquid promoters on hydrate formation in a fixed bed column with silica sand. In 8th International Conference on Gas Hydrates, Beijing, 2014.

(CP10) Babu, P.*; Yao, M.; Datta, S.; Kumar, R.; Linga, P., Impact of tetra-n-butyl ammonium nitrate (TBANO3) on hydrate formation from fuel gas mixture. In 8th International Conference on Gas Hydrates, Beijing, 2014.

(CP9) Kumar, A.*; Linga, P.; Kumar, R.; Carbon dioxide capture from a flue gas and fuel mixture by hydrate formation in silica gel and silica sand media. In 8th International Conference on Gas Hydrates, Beijing, 2014.

(CP8) Babu, P.*; Kumar, R.; Linga, P., Fixed bed reactor design: An opportunity to apply the clathrate process for carbon dioxide capture and seawater desalination. In 8th International Conference on Gas Hydrates, Beijing, 2014.

(CP7) Babu, P.; Yang, S. H. B.; Dasgupta, S.; Linga, P.*, Methane Production from Natural Gas Hydrates via Carbon Dioxide Fixation. In 6th International Conference on Applied Energy, Taipei, 2014. *Proceedings published in Energy Procedia (2014), 61, 1776-1779*

(CP6) Babu, P.; Chin, W. I.; Kumar, R.; Linga, P.*, The impact of pressure and temperature on tetra-n-butyl ammonium bromide semi-clathrate process for carbon dioxide capture. In 6th International Conference on Applied Energy, Taipei, 2014. *Proceedings published in Energy Procedia (2014), 61, 1780-1783*

(CP5) Daraboina, N.; Linga, P.; Ripmeester, J.; Englezos, P., Experimental investigation of the effect of poly-N-vinyl pyrrolidone on methane/propane clathrate in the presence of silica sand. In 7th International Conference on Gas Hydrates, Edinburgh, 2011.

(CP4) Linga, P.*; Ripmeester, J. A.; Englezos, P., Assessment of the medium-pressure clathrate hydrate process for CO2 capture in a new apparatus. In 6th International Conference on Gas Hydrates, Vancouver, 2008.

(CP3) Nam, S.-C.; Linga, P.*; Haligva, C.; Ripmeester, J. A.; Englezos, P., Kinetics of hydrate formation and decomposition of methane in porous media. In 6th International Conference on Gas Hydrates, Vancouver, 2008.

(CP2) Kumar, R.; Linga, P.*; Englezos, P., Pre and Post Combustion Capture of Carbon dioxide via Hydrate Crystallization. In EIC Climate Change Conference, Ottawa, 2006.

(CP1) Linga, P.; Kumar, R.; Englezos, P.*, The clathrate hydrate process for post and pre combustion capture of carbon dioxide. In Protection and Restoration of the Environment VIII, Chania, 2006.

(CT43) Vishwakarma, G.*, Linga P., Role of clathrate hydrates in altering the chemical composition of comets, Invited talk at Physical Research Laboratory, Thaltej Campus, Ahmedabad, 13 December 2024

(CT42) Vishwakarma, G.*, Linga P., Vacuum Ultraviolet Photolysis of Clathrate Hydrates under Cometary Conditions, Invited talk at Physical Research Laboratory, Main Campus, Ahmedabad, 12 December 2024

(CT41) Vishwakarma, G.*, Pradeep, T., Linga P., Dry Water CO2 Hydrate for Carbon Capture and Storage, CoE International Conference on Molecular Materials and Functions – 2024, Chennai, 09-11 December 2024

(CT40) Dhamu V.*, Qureshi M.F., Linga P., Robust Insights into CO_2 Hydrate Kinetics in Brine-Saturated Sediments Using Experimental and Machine Learning Approaches for Ccus Application, In AIChE Annual Meeting, San Diego, 27 October-1 November 2024

(CT39) Dhamu V.*, Qureshi M.F., Linga P., An L-Tryptophan and 1,3 Dioxane Synergic Study on CO_2 Hydrate Kinetic with Seawater: Applicable to CO_2 Sequestration Via Gas Hydrate, In AIChE Annual Meeting, San Diego, 27 October-1 November 2024

(CT38) Dhamu V.*, Xiao M., Qureshi M.F., Linga P., Effect of the sediment sizes on the CO_2 hydrate formation: Applicable to Carbon Capture and Sequestration, 9th International Conference on Advances in Energy Research, Mumbai, India 12-14 December 2023.

(CT37) Dhamu, V.*, Qureshi, M. F., & Linga, P. (2023, November). Development of Machine Learning [ML] Based Model for Predicting CO_2 Hydrate Formation Kinetics in Porous Media. In AIChE Annual Meeting. Orlando, Florida, 5-10 November 2023.

(CT36) Dhamu V.*, Qureshi, M. F., Linga, P. CO_2 hydrate formation kinetics and morphological study at high-pressure conditions, International Conference of Gas hydrate 10, (ICGH10), Singapore, July 9-14, 2023.

(CT35) Xiao M*, Dhamu V., Qureshi, M. F., Linga, P. Kinetics and morphology of CO_2 hydrate formation in sediments with different porosity in saline and un-saline conditions, International Conference of Gas hydrate 10, (ICGH10), Singapore, July 9-14, 2023

(CT34) Qureshi, M. F., Dhamu V.*, Linga, P. Demonstrating the stability of the CO2 hydrate in oceanic sediments for CO_2 sequestration on the laboratory scale, International Conference of Gas hydrate 10 (ICGH10), Singapore, July 9-14, 2023

(CT33) Zheng, J.*; Kim, H.; Babu, P.; Linga, P. Kinetic evaluation of tetra-n-butylammonium bromide hydrate formation: Application for cold energy transport and distribution. In 10th International Conference on Gas Hydrates (ICGH10), Singapore, July 9-14, 2023.

(CT32) Qureshi M.F., Dhamu V.*, Usadi A., Barckholtz T.A., Mhadeshwar A.B., and Linga P., Assessing the stability of the CO_2 hydrate in oceanic sediments for CO2 sequestration", In Energy Summit, Chennai, India, 5-8 December, 2022.

(CT31) Qureshi, M. F., Dhamu, V*., Usadi, A., Barckholtz, T., Mhadeshwar, A. B., & Linga, P. Evaluating CO 2 Hydrate Stability in Oceanic Sediments for CO 2 Sequestration. In 2022 AIChE Annual Meeting, Phoenix, November 13-18, 2022.

(CT30) Zheng, J.*; Kim, H.; Babu P.; Linga, P. Formation kinetics and flow behavior of semi-clathrate hydrate slurry in a flow loop: application for cold energy transport and distribution. In 2022 AIChE Annual Meeting, Phoenix, November 13-18, 2022.

(CT29) Qureshi, MF.; Dhamu, V.; Usadi, A.; Barckholtz, TA.; Mhadeshwar, A.; Linga, P.*, Demonstrating CO_2 hydrate stability in oceanic sediments on lab scale to promote CO_2 sequestration. In European Conference on Gas Hydrates, Lyon, France. 13-16 June 2022.

(CT28) Kim, H.*; Zheng, J.; Babu, P.; Linga, P., Study on tetra-n-butylammonium bromide hydrate formation kinetics for cold storage and transport. In European Conference on Gas Hydrate(ECGH), Lyon, France, June 13-16, 2022.

(CT27) Zhang Y.; Xu H.; Linga, P.*, A thermodynamic and kinetic study on the mixed H2/Dixoane sII hydrate for hydrogen storage. In ECGH, Lyon, June 13-16, 2022.

(CT26) Babu, P.; Chong, Z. R.; Nambiar, A.; Daraboina, N.; Linga, P.*, Techno economic analysis of clathrate hydrate based desalination (HyDesal) process utilizing LNG Cold Energy. In AIChE Annual Meeting, Orlando, November 9 – 15, 2019.

(CT25) Bhattacharjee, G.*; Veluswamy, H. P.; Nambiar, A.; Kumar, R.; Linga, P., A Fundamental Comparison of the Stability and Dissociation Aspects of Structure I and Structure II Hydrates from the Perspective of Feasible Natural Gas Storage. In AIChE Annual Meeting, Orlando, November 9 – 15, 2019.

(CT24) Gaekwad, N.*; Kushwaha, O. S.; Linga, P.; Sangwai, J.; Kumar, R.; Structure H Hydrate Formation with LMGS and CO_2, in Ice and Water. In AIChE Annual Meeting, Orlando, November 9 – 15, 2019.

(CT23) Veluswamy, H. P.*; Kumar, A.; Linga, P., Stability Assessment of Hydrate Pellets for Energy Storage. In AIChE Annual Meeting, Pittsburgh, October 29 – 02, 2018.

(CT22) Babu, P.*; Nambiar, A.; Linga, P., Evaluation of CO2/C3H8 Gas Mixture for Clathrate Hydrate Based Desalination (HyDesal) Process. In AIChE Annual Meeting, Pittsburgh, October 29 – 02, 2018.

(CT21) Babu, P.*; Nambiar, A.; Linga, P., The state of the art prototype design for clathrate hydrate based desalination (HyDesal) process utilizing LNG Cold Energy. In AIChE Annual Meeting, Pittsburgh, October 29 – 02, 2018.

(CT20) Khurana, M.*; Linga, P., Numerical simulation of hydrates in porous media for clathrate based applications. In AIChE Annual Meeting, Pittsburgh, October 29 – 02, 2018.

(CT19) Yin, Z*, Moridis, G.; Tan, H. K.; Linga, P., Calibration of a numerical model against experimental data of methane hydrate formation and dissociation in a sandy porous medium. In 11th International Methane Hydrate R&D Workshop (Fiery Ice), Corpus Christi, December 6 – 8, 2017.

(CT18) Chong, Z. R.*, Yin, Z.; Zhao, J.; Linga, P., Energy recovery from natural gas hydrates: effect of horizontal flow conduit incorporation on gas and water production. In International Meeting on Petroleum Engineering, Singapore, 16-17 November 2017.

(CT17) Yin, Z.*; Chong, Z. R.; Moridis, G.; Linga, P., Energy recovery from natural gas hydrates: modelling of natural gas hydrate dissociation in porous media by depressurization with a parametric study. In Petroleum Engineering Meeting, Singapore, November 16 – 17, 2017.

(CT16) Yin, Z*, Moridis, G.; Tan, H. K.; Linga, P., Numerical modelling of natural gas hydrate dissociation and fluids flow behavior in sandy porous medium. In Applied Energy Symposium & Forum (WES-CUE) 2017, Singapore, June 18 – 21, 2017.

(CT15) Veluswamy, H. P.; Linga, P.*, SNG Technology via Clathrate Hydrates for Large Scale Storage of Natural Gas. In AIChE Annual Meeting, San Francisco, November 13 – 18, 2016.

(CT14) Chong, Z. R.; Linga, P.*, Natural Gas Hydrates in Marine Locations: Effect of Stimulation Temperature on Gas and Water Production. In AIChE Annual Meeting, San Francisco, November 13 – 18, 2016.

(CT13) Babu, P.; Linga, P.*, Progress on the hydrate based gas separation (HBGS) process for carbon dioxide capture. In AIChE Annual Meeting, Salt Lake City, 2015.

(CT12) Babu, P.*; Zheng, J.; Linga, P., Effect of tetrahydrofuran on the clathrate process for pre-combustion capture of carbon dioxide. In 65th CSChE, Calgary, October 4-7, 2015.

(CT11) Babu, P.; Linga, P.*, Potential for Semiclathrates for CO_2 capture. In 19th Symposium on Thermophysical Properties, Boulder, 2015.

(CT10) Babu, P.; Kumar, R.; Linga, P.*, Semiclathrates for CO_2 capture. In AIChE Annual Meeting, Atlanta, 2014.

(CT9) Mekala, P.; Babu, P.; Sangwai, J.*; Linga, P., Experimental Investigations on Natural Gas Recovery from Gas Hydrates using Thermal Stimulation. In International Symposium on Fusion Technology in Oil and Gas Development, South Korea, January 2014.

(CT8) Babu, P.; Kumar, R.; Linga, P.*, Progress on the hydrate based gas separation (HBGS) process for carbon dioxide capture. In AIChE Annual Meeting, San Francisco, 2013.

(CT7) Babu, P.; Yee, D.; Linga, P.*; Palmer, A.; Khoo, B. C.; Tan, T. S.; Rangsunvigit, P., Transient Hydrate Formation/Dissociation of Methane Hydrates in Porous Media at Hydrate Stable Conditions. In 2013 AIChE Annual Meeting, San Francisco, 2013.

(CT6) Babu, P.; Linga, P.*, The clathrate process for pre-combustion capture of carbon dioxide employing a novel fixed bed reactor. In 2012 AIChE Annual Meeting, Pittsburgh, 2012.

(CT5) Linga, P.*; Haligva, C.; Ripmeester, J. A.; Englezos, P., Enhanced rate of hydrate formation in a silica sand matrix compared to a stirred vessel. In 237th ACS National Meeting & Exposition, Fuel Chemistry Division, Salt Lake City, 2009.

(CT4) Linga, P.; Kumar, R.*; Ripmeester, J. A.; Englezos, P., Progress on the gas hydrate process for CO_2/N_2 and CO_2/H_2 separation using a large scale apparatus. In 237th ACS National Meeting & Exposition, Fuel Chemistry Division, Salt Lake City, 2009.

(CT3) Kumar, R.*; Linga, P.; Ripmeester, J. A.; Englezos, P., Capture of carbon dioxide through clathrate hydrate crystallization In 8th World Congress of Chemical Engineering: Incorporating the 59th Canadian Chemical Engineering Conference and the 24th Inter American Congress of Chemical Engineering, Montreal, 2009; p 512.

(CT2) Kumar, R.*; Linga, P.; Adeyemo, A.; Ripmeester, J. A.; Englezos, P., Post-combustion capture of carbon dioxide by clathrate hydrate crystallization. In CHEMRAWN-XVII and ICCDU-IX Conference on Greenhouse Gases Mitigation and Utilization, Kingston, Canada, 2007.

(CT1) Linga, P.; Kumar, R.*; Englezos, P., Pre and post-combustion capture of carbon dioxide by clathrate hydrate crystallization. In CSChE Conference, Sherbrooke, 2006.

RESEARCH GRANTS

Key facts: Secured research funds to the tune of S$18.0 million (>USD$12 million)

2024 Hydrogen storage via clathrate hydrates, Chevron, Principal Investigator, S$139,000 (2024.11 to 2026.11).

2023 Solidified Natural Gas (SNG) Storage Technology, NRF Investigratorship, Principal Investigator, S$3,250,000 (2023.04-2028.03).

2022 Stable and long term CO_2 hydrate based storage (CO_2-HyStore) in deep ocean sediments, A*STAR, Principal Investigator, S$1,999,872 (2022.04-2025.03).

2022 Holistic Development of Clathrate Hydrate based Hydrogen Storage Technology, MOE TIER 1, S$200,000, Principal Investigator (2022.03-2025.02).

2021 Industry Project on CO_2 Sequestration, ExxonMobil, Principal Investigator, S$345,000 (2021.05 to 2025.03).

2020 Gas Hydrate Technology for Clean Water and Environment, International collaborative grant, MOE TIER 1, S$50,000, Principal Investigator (2020.03-2023.07).

2019 Integration of Cold Energy for Sustainable and Energy Efficient Data-Centres (ICE-SEED), NRF-IMDA, S$2.49 million, Principal Investigator (2019.08 to 2023.01).

2019 Industry Project on CO_2 Sequestration, ExxonMobil, Principal Investigator, S$345,000 (2019.01 to 2022.12).

2018 Semiclathrates as Thermal Energy Carrier & Storage for District Cooling Systems, MOE TIER 1, SGD$150,527, Principal Investigator (2018.01 to 2021.02).

2016 A Cost-Effective Solidified Natural Gas (SNG) Technology for Energy Storage to Strengthen Energy Resilience in Singapore, Lloyd's Register Global Technology Centre Pte Ltd, SGD$250,000, Principal Investigator (2016.06 to 2019.05).

2016 A Cost-Effective Solidified Natural Gas (SNG) Technology for Energy Storage to Strengthen Energy Resilience in Singapore, Energy Market Authority Office, National Research Foundation, SGD$1.8 million, Principal Investigator (2016.06 to 2019.05).

2016 Understanding the behavior of methane hydrate formation and dissociation, Lloyd's Register Global Technology Centre Pte Ltd, SGD$100,000, Principal Investigator (2016.01 to 2019.12).

2016 LNG Cold Energy Utilization to Desalinate Seawater Employing the Hydrate Based Desalination (HBD) Process, BG Group, SGD$120,000, Principal Investigator (2016.01 to 2019.01).

2015 LNG Cold Energy Utilization to Desalinate Seawater Employing the Hydrate Based Desalination (HBD) Process, Energy Market Authority Office, National Research Foundation, SGD$1.37 million, Principal Investigator (2015.08 to 2019.01).

2015 Energy minimization at the SLNG regasification terminal: Boil-off gas management and process integration, Energy Market Authority Office, National Research Foundation, SGD$1.08 million, Co-Principal Investigator (2015.08 to 2018.07).

2014 Natural Gas Center: Preparing Singapore for the emerging global natural gas economy, National University of Singapore, University Strategic Funding, SGD$3.97 million, Co-Principal Investigator (2014.09 to 2017.08); Project Lead for Natural Gas Hydrates.

2014 Methane production from natural gas hydrates via carbon dioxide fixation, National University of Singapore, Faculty Strategic Funding, SGD$233,642, Principal Investigator (2014.04 to 2016.03).

2013 CO_2 Utilization by catalytic hydrogenation with solar hydrogen: from molecules to reactors, National University of Singapore, SGD$38,000, Co-Principal Investigator (2013.05 to 2014.04).

2013 CO_2 Sequestration and CH_4 production from naturally occurring hydrate deposits, MOE TIER 1, SGD$173,903, Principal Investigator (2013.03 to 2016.02).

2012 Production and site investigation of natural gas hydrates, CORE at the National University of Singapore, SGD$150,000, Co-Principal Investigator (2012.02 to 2015.01).

2010 Pre-combustion capture of carbon dioxide based on gas hydrate formation, MOE TIER 1, SGD$179,937, Principal Investigator (2010.08 to 2013.07).

GRADUATE STUDENTS SUPERVISED

1. Ponnivalavan BABU, PhD, National University of Singapore (2010 – 2014, graduated), currently as research fellow at Linga Lab.
2. Hari Prakash VELUSWAMY, PhD, National University of Singapore (2011-2015, graduated), now a faculty at Indian Institute of Technology (IIT), Roorkee.
3. Jun Lin TOO, PhD, National University of Singapore (2013-2017, graduated), working in an industry in Singapore.
4. Zheng Rong CHONG, PhD, National University of Singapore (2014-2017, graduated), working in an industry in Singapore.
5. Junjie ZHENG, PhD, National University of Singapore (2014 – 2018, graduated), currently a research fellow at Linga Lab.
6. Zhenyuan YIN, PhD, National University of Singapore (2016-2019, graduated). Currently a faculty in Tsinghua University China.
7. Gaurav PANDEY, PhD, IIT Madras – NUS Joint PhD program (2016-2019, graduated), currently, now a faculty in UPES India.
8. Ye ZHANG, PhD, National University of Singapore (2020-2022, graduated), currently research fellow at Linga Lab.
9. Vikas DAMMU, PhD, National University of Singapore (2021-present).
10. Emmerson HONDO, PhD, National University of Singapore (2023-present).
11. LEE Chang Houng, PhD, National University of Singapore (2024-present).
12. MA Yunhan, PhD, National University of Singapore (2024-present).

Masters Students:

1. Matilda LOH, MEng, National University of Singapore (2013, graduated), currently working in an industry.
2. She Hern Bryan YANG, MEng, National University of Singapore, (2014, graduated). Currently working in an industry in Singapore.
3. Abhishek P. NAMBIAR, MSc (project), National University of Singapore (2014, graduated). Currently working in an industry in Singapore.
4. Niranjan Kumar LOGANATHAN, MEng, National University of Singapore (2018-2019, graduated), in Industry.
5. Marcus Neale Goh Zheng Jie, MEng, National University of Singapore (2019-2020, graduated), currently, working in an industry in Singapore.
6. Himanshu KHANDELWAL, MEng, National University of Singapore (2019-2020, graduated), currently working in an industry in India.
7. XU Huanzhi, MEng, National University of Singapore (2022-2024).
8. ZHOU Ning, MEng, National University of Singapore (2022-2023).
9. XIAO Mengqi, MEng, National University of Singapore (2022-2024).

10. MA Yunhan, MEng, National University of Singapore (2022-2024).
11. Zhankui LU, MEng, National University of Singapore (2023-present).
12. Mingle XU, MEng, National University of Singapore (2023-present).

International Visiting Students:

1. Atsadawuth SIANGSAI, PhD, visiting scholar for 3 months in 2012, Chulalongkorn University, graduated in May 2015. Working in an industry in Thailand.
2. Prathyusha MEKALA, PhD, visiting scholar for 3 months (Jun-Aug 2013), Indian Institute of Technology Madras, graduated in 2014, now working in an industry in India.
3. Kazuki FUKUZAWA, MSc, visiting scholar for 1 month (Sep-Oct 2016), Keio University, Japan.
4. Yuta ARAI, MSc, visiting scholar for 1 month (Aug-Sep 2017), Keio University, Japan.
5. Hyunho KIM, PhD, visiting student for 5 months (Jan-May 2018), Seoul National University, South Korea. Currently, a research fellow in Linga Lab.
6. Jia-nan Zheng, PhD, visiting student for 3 months (May-July 2018), Dalian University of Technology, China. Currently a postdoc in DUT China.
7. Bingbing Chen, PhD, visiting student for 4 months (May-August 2019), Dalian University of Technology, China.
8. Akash Govind, BEng, visiting internship student for 4 months (May-August 2019), NIT Tiruchirappalli, India. Currently, pursuing his masters degree in USA.
9. Katipot Inkong, PhD, visiting student for 4 months (Jan-Apr, 2019), Chulalongkorn University, Thailand. Currently, as research fellow in Thailand.
10. Qingcui Wan, PhD, visiting student for 1 year (2019.09 – 2020.09), Chongqing University, China.
11. Qiang Gao, PhD, visiting student for 1 year (2020.01 – 2020.12), Taiyuan University of Technology, China.
12. Namrata Gaikwad, visiting student for 1 year (2020.01 – 2020.03), Indian Institute of Technology Madras, India.
13. ZHANG Yue, visiting student for 1 year (2021.01 – 2022.01), Tianjin University.
14. Youqiang LIAO, visiting student for 1 year (2021.01 – 2022.01), China University of Petroleum Qingdao China.
15. ZHAO Jie, visiting student for 1 year (2021.01 – 2022.01), Dalian University of Technology, China.
16. Kan Jeenmuang, PhD, visiting student for 6 months (Sep-Feb 2023), Chulalongkorn University, Thailand.
17. Viphada Yodpetch, PhD, visiting student for 6 months (Mar-Aug 2023), Chulalongkorn University, Thailand.
18. Zheng Liu, PhD visiting student for 1 year (2022), China University of Petroleum, Qingdao, China
19. Jiyue Sun, PhD visitng student for 1 year (2022), CAS Institute of Deep-sea Science and Engineering, China.
20. Xiaoya Xu, PhD visiting student for 1 year (2022), China University of Petroleum, Beijing China.
21. Sun Ningru, PhD visiting student for 1 year (2022), HEU Harbin, China.
22. Yongji Wu, PhD visiting student for 1 year (2022), HIT Harbin, China.

23. Hao Peng, PhD visiting student for 1 year (Jan-Dec 2023), Guangzhou Institute of Energy Conversion, China.
24. Qian Ouyang, PhD visiting student for 6 months (2023), Denmark Technical University, Denmark.
25. Gaurav Vishwakarma, PhD visiting student (2023), Indian Institute of Technology Madras, India.
26. Junjie REN, PhD visiting student for 1 year (2024), Tsinghua SIGS, China.
27. YANG Ning, PhD visiting student for 1 year (2024), China University of Petroleum, Qingdao, China.
28. ZOU Chenwei, PhD visiting student for 1 year (2024), China University of Petroleum, Qingdao, China.
29. Faling YIN, PhD visiting student for 1 year (2025), China University of Petroleum, Qingdao, China.

RESEARCH FELLOWS, ASSOCIATES & ENGINEERS SUPERVISED

1. Dr. Xiaodong Shen, Visiting Scientist from Chengdu University of Technology (2025.01 – present)
2. Dr. Xiuping Zhong, Visiting Scientist from Jilin University (2024.04 – present).
3. Dr. Gaurav Vishwakarma, Research Fellow (2024.04 – present).
4. Dr. Kan Jeenmuang, Research Fellow (2024.02 – present).
5. Dr. Tingting Luo, Visiting Scientist from China University of Mining and Technology (2024.01 – 2024.12).
6. Dr. Zhang Ye, Research Fellow (2023.01 – present).
7. Dr. Zhang Yue, Research Fellow (2023.01 – 2024.12).
8. Dr. Jun Chen, Visiting Scientist from Xiangnan University (2023.01 – 2023.12).
9. Dr. M Fahed QURESHI, Research Fellow (2019.09 – present).
10. Dr. Junjie ZHENG, Research Fellow (2018.12 – 2024.12).
11. Dr. Gaurav BHATTACHARJEE, Research Fellow (2018.10 – 2023.12).
12. Dr. Ponnivalavan BABU, Research Fellow (2014.10 – 2019.01), Senior Research Fellow (2020.01 – 2023.07), now at University of Tulsa USA.
13. Dr. Hyunho KIM, Research Fellow (2020.03 – 2022.03), now working in industry in South Korea.
14. Dr. Zhenyuan YIN, Research Fellow (2020.02 – 2020.12), now a faculty at Tsinghua University.
15. Dr. Qiang ZHANG, Visiting Scientist from Heilongjiang University of Science and Technology (2019.12 – 2020.12), now associate professor in the institute.
16. Dr. Li HUANG, Visiting Scientist from QIMG China (2018.11 – 2019.11), now a faculty in Qingdao Institute of Marine Geology, China.
17. Dr. Zheng Rong CHONG, Research Fellow (2017.09 – 2019.05), now in Chemical and Process Industry.
18. Dr. Jun Lin TOO, Research Fellow (2017.03 – 2019.03), now in Oil and Gas Industry Singapore.
19. Dr. Tianbiao HE, Research Fellow (2017.07 – 2018.05), now Professor in Zhejiang University, China.

20. Dr. Zhongjin HE, Research Fellow (2015.06 – 2018.08), now Professor in China University of Geosciences Wuhan, P. R. China.
21. Dr. Asheesh KUMAR, Research Associate (2016.05 – 2018.07), now Ramanujan Fellow, Institute of Petroleum Engineering (IPE), Dehradun, India.
22. Dr. Hari Prakash VELUSWAMY, Research Fellow (2015.11 – 2019.10), now a faculty at Indian Institute of Technology (IIT) Roorkee, India.
23. Dr. Maninder KHURANA, Research Fellow (2016.05 – 2020.10), now an entrepreneur.
24. Mr. Abhishek P. NAMBIAR, Research Engineer (2015.10 – 2019.01), now in Industry.
25. Dr. Jianzhong ZHAO, Visiting Scientist from TUT China (2017.01 – 2017.12), now a faculty in Taiyuan University of Technology, China.
26. Dr. Baoyong ZHANG, Visiting Scientist from HUST China (2017.01 – 2017.12), now Professor and Dean in Heilongjiang University of Science and Technology, China.
27. Dr. Kiran BANDARU, Research Fellow (2015.11 – 2017.05), now an Assistant Professor in VIT India.
28. Dr. Jagadeesh Babu VELURU, Research Fellow (2015.04 – 2016.01), working in Industry in India.
29. Mr. Sharad KUMAR, Research Engineer (2016.08 – 2017.02), now at ExxonMobil.
30. Dr. Mingjun YANG, Visiting Scientist from DUT China (2015.01 – 2015.12), now a Professor and Dean in Dalian University of Technology, China.

UNDERGRADUATE STUDENTS SUPERVISED (RESEARCH PROJECTS)

Key facts: Supervised 60+ undergraduate thesis projects

1. Nithila SELVARAJ, Final Year Project (AY2023-24)
2. Dorothy TING Wan Shyuen, Final Year Project (AY2021-22)
3. XU Huanzhi, Final Year Project BTECH (AY2020-21)
4. Mohana Dharshini d/o VIJAYKUMAR, Final Year Project (AY2020-21)
5. ZHANG Shuyu, Final Year Project (AY2018-19)
6. Sonia ARUMUGANAINAR, Final Year Project (AY2018-19)
7. LIU Zhenhao, Kelvin, Final Year Project BTECH (AY2018-19)
8. CHANG Kai-Hsun, Final Year Project BTECH (AY2018-19)
9. Muhammad Uzair KHAN, Final Year Project (AY2017-18)
10. LIU Zhenhao, Kelvin, Final Year Project BTECH (AY2018-19)
11. CHANG Kai-Hsun, Final Year Project BTECH (AY2018-19)
12. LIN Yanjie, Final Year Project (AY2017-18)
13. Regine MOH, Final Year Project (AY2017-18)
14. MUHAMMAD Farhan Bin Mohd Ridwan, Final Year Project (AY2017-18)
15. Kaneson MACHAPU, Final Year Project BTECH (AY2017-18)
16. LIAO Junxiong, Final Year Project (AY2016-17)
17. CHAN Jian Hua Rudi, Final Year Project (AY2016-17)
18. LOW Jia Wee, Final Year Project (AY2016-17)

19. LIM Wen Jun, Final Year Project (AY2016-17)
20. WONG Wen Qiang, Final Year Project (AY2016-17)
21. Sharanya Sharma VEDULA, Final Year Project (AY2016-17)
22. TAN Jun Hao Clifton, Final Year Project (AY2016-17)
23. LEE Pei Yit, Final Year Project (AY2016-17)
24. Krittika BHATNAGAR, Final Year Project (AY2016-17)
25. KOH Jun Wee, Final Year Project (AY2016-17)
26. Jain DHWANI, Final Year Project (AY2016-17)
27. Kulesha Priyalal PREMASINGHE, Final Year Project (AY2016-17)
28. CHIEW Peng Sheng, Final Year Project BTECH (AY2015-16)
29. Arjun MULLOTH, Final Year Project (AY2015-16)
30. Sharad KUMAR, Final Year Project (AY2015-16)
31. HONG Qi Wei, Final Year Project (AY2015-16)
32. NG Jing Heng, Final Year Project (AY2015-16)
33. Girish Anand PUJAR, Final Year Project (AY2015-16)
34. LEE Yean Kuan, Final Year Project (AY2015-16)
35. LU Li, Final Year Project (AY2015-16)
36. WONG Alison Jia Hui, Final Year Project (AY2015-16)
37. ANG Wei Jun, Final Year Project (AY 2014-15)
38. CHAN Hui Min Adeline, Final Year Project (AY 2014-15)
39. Stuti DATTA, Final Year Project (AY 2014-15)
40. ANG Chek Keng, Final Year Project (AY 2014-15)
41. ONG Hong Wen Nelson, Final Year Project (AY 2014-15)
42. Geoffrey TJIUPEK, Final Year Project (AY 2014-15)
43. Ganank Atulkumar SRIVASTAVA, Final Year Project (AY 2014-15)
44. CHEN Jian Yu, Final Year Project (AY 2013-14)
45. Sam Fu Sheng CHUA, Final Year Project
46. YANG Ting, Final Year Project (AY 2013-14)
47. TEO Siang Ling Grace, Final Year Project (AY 2013-14)
48. Wincent Marciono MAK, Final Year Project (AY 2013-14)
49. HO Chie Yin, Final Year Project (AY 2013-14)
50. YEW Jin Chaw, Final Year Project (AY 2013-14)
51. CHIN Weng Inn, Final Year Project (AY 2013-14)
52. Stuti DATTA, UROP Project (AY 2013-14)
53. LIM Hanbin, Final Year Project (AY 2012-13)
54. HO Leong Chuan, Final Year Project (AY 2012-13)
55. ONG Sze Sian, Final Year Project (AY 2012-13)

56. XU Kuo, Final Year Project (AY 2012-13)
57. LIM Yu An, Final Year Project (AY 2012-13)
58. SIEW Keng Loong Marcus, Final Year Project (AY 2012-13)
59. Sajawal ZAHID, Final Year Project (AY 2012-13)
60. YAO Minghuang, Final Year Project (AY 2012-13)
61. YANG Ting, UROP Project (AY 2012-13)
62. LEONG Wei Quan Edmund, UROP Project (AY 2012-13)
63. Stella TAN Yun Hui, Final Year Project (AY 2011-12)
64. Den Syahril Bin Mohamed ISMAIL, Final Year Project (AY 2011-12)
65. Jianting WONG, Final Year Project (AY 2011-12)
66. NG Yong Kuan, Final Year Project (AY 2011-12)
67. HAO Yi, Final Year Project (AY 2011-12)
68. NG Jin Hin, Final Year Project (AY 2011-12)

LINGA LAB MEMBER AWARDS & HONORS

- Advisee (Vikas DHAMU) received the International Inflection Award (2025).
- Advisee (Nithila SELVARAJ) received AIChE Singapore Local Section Outstanding Undergraduate Final Year Research Thesis Award (2024).
- Advisee (Zhang YE) received 2022 Chinese Award for Outstanding Self-financed Students Abroad, Chinese Scholarship Council (2023).
- Advisee (Zhang YE) received the AICHE Singapore Local Section Outstanding PhD Thesis Award (2023).
- Advisee (Dr. Junjie ZHENG) received the ICGH10 Best PhD Thesis Award (2023).
- Advisee (Dr. Junjie ZHENG) received the AIChE Singapore Local Section Outstanding Young Researcher Award (2022).
- Advisee (Dr. M Fahed QURESHI) received the AIChE Singapore Local Section Outstanding Young Researcher Award (2021).
- Advisee (XU Huanzhi) received AIChE Singapore Local Section Outstanding Undergraduate Final Year Research Thesis Award (2021).
- Advisee (Dr. Gaurav BHATTACHARJEE) featured in the Forbes 30 Under 30 Asia 2021 list for Healthcare and Science (2021).
- Advisee (Gaurav PANDEY) received the Institute Research Award from Indian Institute of Technology Madras (2021).
- Advisee (Dr. Gaurav BHATTACHARJEE) received the AIChE Singapore Local Section Outstanding Young Researcher Award (2020).
- Advisee (Dr. Zhenyuan YIN) received Outstanding Graduate Thesis Award, AIChE Singapore Local Section (2020).
- Advisee (Sonia ARUMUGANAINAR) received AIChE Singapore Local Section Outstanding Undergraduate Final Year Research Thesis Award (2020).
- Advisee (Gaurav PANDEY) received the prestigious Bhagyalakshmi and Krishna Iyengar Award for Best PhD research, 57th Convocation IIT Madras (2020).

- Advisee (Zhenyuan YIN) received 2019 Chinese Award for Outstanding Self-financed Students Abroad, Chinese Scholarship Council (2020).
- Advisee (ZHANG Shuyu) received the 34th FoE Innovation and Research Merit Award for her FYP Research Project (2020).
- Advisee (Dr. Junjie ZHENG) received Outstanding Graduate Thesis Award, AIChE Singapore Local Section (2019).
- Advisee (Dr. Ponnivalavan BABU) received ChemEngineering Travel Award, MDPI Switzerland (2018).
- Advisee (Yanjie LIN) received AIChE Singapore Local Section Outstanding Undergraduate Final Year Research Thesis Award (2018).
- Advisee (Dr. Ponnivalavan BABU) received the Outstanding PhD Thesis Award in the International Conference on Gas Hydrates (ICGH9), Denver USA (2017).
- Advisee (Dr. Ponnivalavan BABU) received the AIChE Singapore Local Section Outstanding Young Researcher Award (2017).
- Advisee (Kulesha PREMASINGHE) received the AIChE Singapore Local Section Outstanding Undergraduate Final Year Project Award for his final year research project (2017).
- Advisee (Dr. Hari Prakash VELUSWAMY) received the Highly Commendable Award for the Young Chemical Engineer in Research Category of IChemE Singapore Awards (2016).
- Advisee (Alison Jia Hui WONG) received AIChE Singapore Local Section Outstanding Undergraduate Dissertation/Research Project Award for their FYP projects (2016).
- Advisee (Sharad KUMAR) received AIChE Singapore Local Section Outstanding Undergraduate Dissertation/Research Project Award for their FYP projects (2016).
- Advisee (Dr. Hari Prakash VELUSWAMY) received the AIChE Singapore Local Section 2016 Outstanding Postgraduate Dissertation Honorable Mention Award (2016).
- Advisee (Alison Jia Hui WONG) received the 30th FoE Innovation and Research Merit Award for her FYP Research Project (2016).
- Advisee (Stuti DATTA) received the Outstanding Undergraduate Researcher (OUR) Award for her UROP Research Project (2015).
- Advisee (ANG Wei Jun) received the AIChE Singapore Local Section Outstanding Undergraduate Research Project Award for his final year research project (2015).
- Advisee (Stuti DATTA) received the 29th FoE Innovation and Research High Achievement Award for her UROP research project (2015).
- Advisee (Nelson ONG) received the 29th FoE Innovation and Research Merit Award for his final year research project (2015).
- Advisee (ANG Wei Jun) received the 29th FoE Innovation and Research Merit Award for his final year research project (2015).
- Advisee (YANG Ting) received the 27th FoE Innovation and Research Merit Award for her UROP research project (2013).
- Advisee (LIM Yu An) received the 27th FoE Innovation and Research Merit Award for her final year research project (2013).

REFEREE IN JOURNALS (SELECTED)

ACS Sustainable Chemistry & Engineering	Environmental Science & Technology

ACS Central Science	Fluid Phase Equilibria
Advanced Materials	Fuel
AIChE Journal	Gas Science and Engineering
Applied Energy	Industrial & Engineering Chemistry Research
Asia Pacific Journal of Chemical Engineering	International Journal of Greenhouse Gas Control
Canadian Journal of Chemical Engineering	International Journal of Heat and Mass Transfer
Canadian Journal of Chemistry	International Journal of Hydrogen Energy
Chemical Engineering Journal	Journal of Chemical and Engineering Data
Chemical Engineering Science	Journal of CO_2 Utilization
Chemical Reviews	Journal of Crystal Growth
Crystal Growth & Design	Journal of Petroleum Science and Engineering
Energy	Journal of Physical Chemistry
Energy & Environmental Science	Journal of Physical Chemistry Letters
Energy & Fuels	Langmuir
Energy Technology	Nature Communications

PROFESSIONAL AFFILIATIONS

- Fellow of the Royal Society of Chemistry (FRSC), United Kingdom, since 2019.
- Registered Professional Engineer (P.E.) since 2018, Professional Engineer Board (PEB) Singapore.
- Founding member and Honorary Secretary (2014-2021) of AIChE Singapore Local Section.
- Senior Member of American Institute of Chemical Engineers (AIChE).
- Member of American Chemical Society (ACS).
- Member of Canadian Society of Chemical Engineers (CSChE).
- Volunteer in a graduate student orientation program held in 2004 at UBC Canada.
- Elected as General Secretary (Maintenance) in hostel (Strength: 450 students) during my master's degree.
- Elected President of the Chemical Engineering Association in the 4th year during undergraduate degree (Strength: 67 students).