

PRES'25 Conference Synopsis

Veszprém, Hungary

PRES'25 Conference Summary

The **28th Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction (PRES'25)**, held in **Port Dickson, Malaysia**, marked a significant milestone in the global scientific community's efforts toward sustainability.

Organised by the **PRISE Foundation**, in collaboration with **Sunway University** and the **University of Nottingham Malaysia**, the event brought together more than 250 researchers, professionals, and academics from around the world.

The founder of PRISE Foundation – Professor Ferenc Friedler, and the Board of Trustees members would like to express their appreciation and gratitude to the conference organising committee led by Professors Denny Ng Kok Sum and Hon Loong Lam, as well as to Dr Dalila Alias, and Ms Aisha Rozaida Mohd Ridzuan for the excellent organisation and care for the conference participants. In addition, special thanks to all the conference sponsors Johnson Controls (M) Sdn Bhd, Solution Engineering Sdn Bhd, Oleology Asia Sdn Bhd, Processes MDPI and Novozyme Malaysia Sdn Bhd, as well as supported by Malaysia Convention & Exhibition Bureau (MyCEB).

This is the third conference organised under the authority of the PRISE Foundation. This year's conference paid tribute to the legacy of **Professor Jiří J. Klemeš** on the occasion of his **80th anniversary**, celebrating his foundational role in the PRES series and his lifelong dedication to scientific collaboration. PRES'25 also marked a return to Malaysia, exactly ten years after the success of PRES'15 in Kuching.

The conference featured:

- Plenary lectures by global experts
- Technical sessions across multiple themes
- The **Plenum Forum** in memory of Professor Klemeš
- The **PRISE-P-graph Forum** on sustainable symbiosis
- A cultural tour of Malacca
- A gala dinner and networking events
- A book launch event by Professor Dominic Foo

PRES'25 reaffirmed its commitment to fostering innovation, collaboration, and knowledge exchange in the pursuit of a cleaner, more sustainable future.

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The excellence and success of PRES conferences are based on the rules and high standards set out by the conference founder, Professor Dr Habil Jiří J. Klemeš, DSc. The PRISE Foundation is the guardian upholding those standards and carrying the responsibility for the success of the PRES in the changing world. Following that, PRISE is open to continuing the collaboration with everybody who supported the conference series in the past and with those who have an interest in being involved in organising the conference in the future.

PRES is dedicated to collaboration with leading scientific journals – such as ENERGY (Elsevier), Thermal Science and Engineering Progress (Elsevier), Clean Technologies and Environmental Policy (Springer), Process Integration and Optimization for Sustainability (Springer), and Discover Sustainability (Springer), while closely collaborating with Chemical Engineering Transactions (AIDIC). The PRISE leadership, in collaboration with the SDEWES Centre, also established a new journal for serving the expanding conference scope – Journal of Sustainable Development of Natural Resources Management. Following the successful completion of the PRES'25 conference, in the next month, the invitations to conference participants to submit manuscripts to special issues of the collaborating journals will be sent.

Board of Trustees, PRISE International Research Foundation

Prof Petar Varbanov (Chairman)

Prof Panos Seferlis

Prof Raymond R. Tan

Dr Yee Van Fan

Dr Rozália Lakner

Mr Jiří Klemeš

The following are highlights of the PRES'25 conference.

Cultural Tour

Date: 24 August 2025

Visit to Baba Nyonya Heritage Museum and lunch with Baba Nyonya cuisine.
Historical walking tour of Malacca.



Figure 1: Entering Baba Nyonya Heritage Museum



Figure 2: Baba Nyonya Heritage Museum Tour



Figure 3: Baba Nyonya Cuisine Lunch

PRES'25 Prelude

Date: 24 August 2025

Venue: Pool Café, Grand Lexis Hotel, Port Dickson

The PRES'25 Prelude offered a relaxed yet intellectually rich start to the conference. Set in the scenic Pool Café, it featured a plenary lecture, informal networking, and vibrant discussions among leading figures in the process integration community. Prof. Fengqi You, from Cornell University, delivered a visionary talk on the role of artificial intelligence in sustainable systems engineering. The session concluded with a lively Q&A, where participants engaged directly with Prof. You on the future of AI in sustainability. The prelude also provided space for informal exchanges among PRES veterans and newcomers.



**Figure 4: Plenary Lecture by Prof. Fengqi You
"AI for Science and Sustainability: A Journey from Process Integration"**

Opening Ceremony, Welcome Addresses

Date: 25 August 2025

Venue: Bunga Raya Grand Ballroom, Grand Lexis Hotel, Port Dickson



Prof. Petar Varbanov
Chairman of PRISE Foundation



Prof Sibrandes Poppema
President of Sunway University



Prof. Denny Ng
Co-Chair of PRES'25



Prof. Hon Loong Lam
Co-Chair of PRES'25



Figure 5: Conference Day 1 Opening Ceremony: Unveiling

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Day 1 Highlights

Date: 25 August 2025



Lecture delivery



Q&A Dr Pimentel asking a question and award token

Figure 6: Plenary Lecture by Prof. Pei Liu on Energy Systems Engineering



Figure 7: Conference Day 1 Panel Discussion Session Sustainable Development Goals with Prof. Sharifah Rafidah Wan Alwi, Prof. Kathleen Aviso, Prof. Sebastian Werle, moderated by Viknesh Andiappan

Day 2 Highlights

Date: 26 August 2025

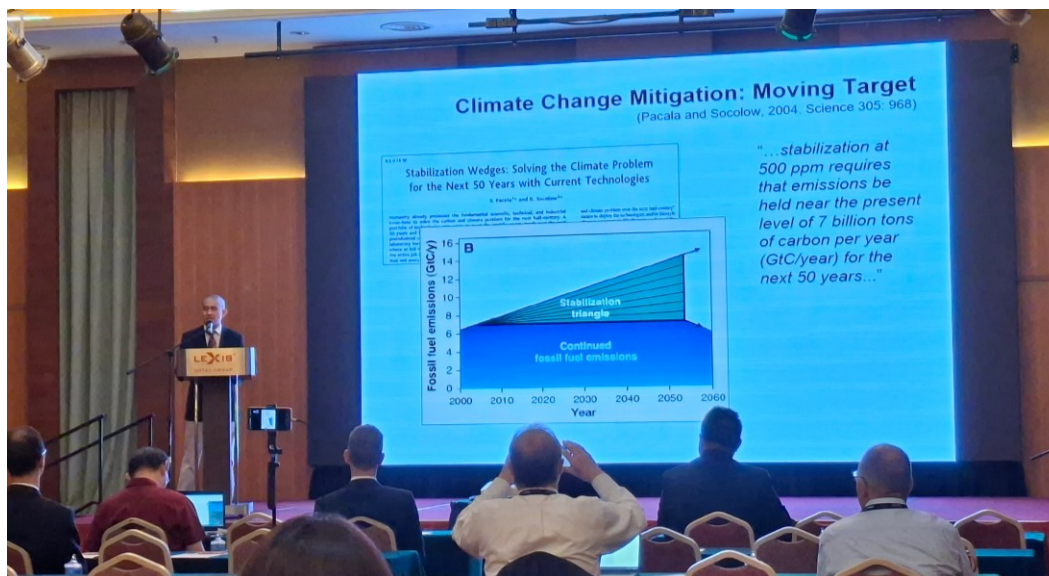


Figure 8: Plenary Talk by Professor Raymond Tan: Process Integration in the Race to Net Zero



Figure 9: Memorial Forum dedicated to the 80th Anniversary of Professor Jiří J. Klemes

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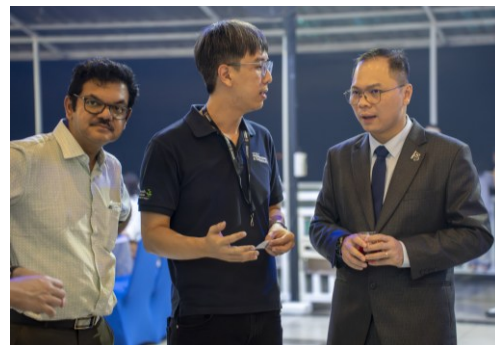
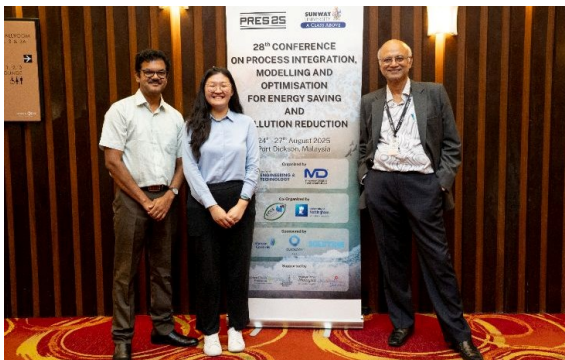
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Figure 10: Gala Dinner with traditional performances and group photo with performers

Informal networking moments captured during session breaks



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Day 3 Highlights

Date: 27 August 2025



Figure 11: Conference Day 3 Professor Suzana Yusup's plenary lecture on ML and Computational Modelling for Net Zero

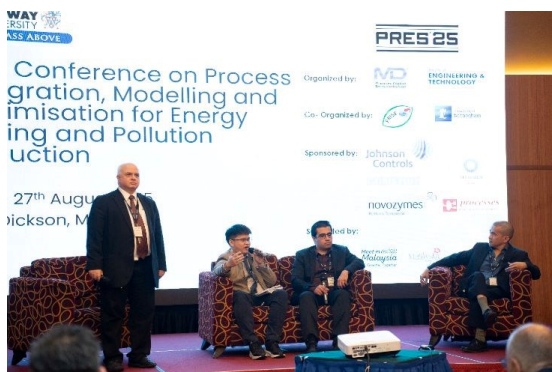


Figure 12: P-graph and PRISE Forum: Sustainable Symbiosis

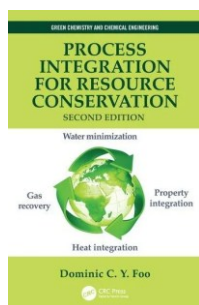


Figure 13: Book Launch by Prof. Dominic Foo



Figure 14: Conference Day 3 - Prof Niyi Isafiade presenting



Figure 15: Conference Day 3 – Dr Dalila Alias presenting



Figure 16: Conference Day 3 Prof Walmsley PRES'25 Conference Champion Award



Figure 17: Conference Day 3 Group Photo After the Closing Ceremony

Sponsors

Johnson Controls showcased its innovations in energy-efficient infrastructure at PRES'25.



Figure 18 Sponsor booth from Johnson Controls



Figure 19: Sponsor booth from Processes, MDPI