Physics-Informed AI Digital Twin for Thermal Management of AI Computing Systems

From chip hotspots and HBM stacks to liquid-cooled racks and data-center supervisory control.

Dr. Chuah Lee Siang

BEM Approved
CPD/PDP Hours: 2
Ref: IEM26/PG/535/T(w)

Zoom
Online Talk

Synopsis

This webinar introduces how Physics-Informed AI and digital twin technology can help manage heat in AI computing systems. By combining physical principles, computer models, and AI, we can predict temperature changes, identify potential overheating problems, and improve cooling efficiency. The aim is to help engineers understand how these technologies can support better thermal management, system performance, and reliability.

02 December 2026 (Wednesday)

8.00 pm – 10.00 pm

REGISTER ONLINE @ event.iempenang.org

IEM Member : RM15.00
Non-IEM Member: RM50.00

About the Speaker

Dr Chuah Lee Siang is a Senior Lecturer in Physics at the School of Distance Education, Universiti Sains Malaysia (USM). She holds a PhD in Physics from USM and has over 16 years of teaching and research experience in applied physics, semiconductor materials, optoelectronics, and materials science. Her research focuses on semiconductor materials, thin films, nanostructures, and electronic and optical devices.

Dr Chuah is also involved in semiconductor-related professional training and the application of physics principles to industrial challenges. Her current interests include Physics-Informed Artificial Intelligence (AI), digital twins, and their potential applications in semiconductor manufacturing and thermal management of AI computing systems.



Speakers:
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Moderator:
Ir. Ts. Lee Choo Mou

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