

# AI for Science Thematic Workshop on AI for Semiconductor Manufacturing

06 May 2024 | 8.30am-2.00pm

Level 2 CREATE Seminar Room

## AI for Science in Semiconductor Manufacturing

A collaborative space for researchers to brainstorm and address most pressing grand challenges in semiconductor manufacturing that can potentially be tackled through cutting-edge AI innovation.

Registration link:

<https://go.gov.sg/ai4elctsemiconworkshop>

0830 – 0900	Registration, Coffee/Tea & Light Breakfast
0900 – 0905	Opening Remarks by the AI for Science team – Profs. Yang Zhang and Kedar Hippalgaonkar
0905 – 1020	Short talks by AI and domain experts on challenges and opportunities in 1) AI for Semiconductor DoE and Failure Analysis (Prof Xiaoli Li, I <sup>2</sup> R ASTAR) 2) AI-integrated Digital Twin for Semiconductor Manufacturing (Prof Yeo Yee Chia, NUS-IME ASTAR) 3) AI-integrated Physical Modelling for Semiconductor Failure Analysis (Prof Aaron Thean, NUS) 4) The Application of Machine Learning in Semiconductor Failure Analysis (Ms Bernice Zee, AMD) 5) AI-enabled Foundry Yield Estimation (Prof Nagarajan Raghavan, SUTD)
1020 – 1045	Tea / Coffee Break
10.45 – 11.45	6) AI-accelerated Semiconductor Design (Prof Mohamed M. Sabry, NTU) 7) AI-enabled EM and RF Technology (Prof Chen Zhining, NUS) 8) Physics guided AI for Design and Analysis of Semiconductor: Devices, Packaging and Manufacturing (Dr Jason Png Ching Eng, Dr Sridhar Narayanaswamy, IHPC ASTAR) 9) AI-guided microscopy for semiconductor (Dr J Senthilnath, I <sup>2</sup> R ASTAR)
1145 – 1230	Breakout sessions
1230 – 1250	Sharing by breakout leads
1250 – 1300	Summary, Way Forward (Senthilnath & Xiaoli)
1300 – 1400	Networking Lunch

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