

# 台積電2025年產學合作計畫 徵求提案

**目的** 為邀請更多優秀學者參與半導體相關領域研究，台積公司擬公開徵求產學合作提案

**對象** 國內各大學教授

**方式** 若您對徵求提案之題目有興趣，歡迎填寫以下連結表單，我們會再寄送詳細資訊給您。

**表單填寫截止日：即日起至2024年9月2日(含)止**

若您看過詳細資訊後決定提案，請下載附件(simple)Proposal form填寫，並依照台積信件中的說明進行初步提案。

**表單連結** <https://zh.surveymonkey.com/r/CTT9LB5>

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## 免責聲明：

- 產學合作主題及其詳細資訊屬於台積公司智慧財產，僅供有興趣之教授申請台積電2025年產學合作計畫之個人使用，不得移作其他用途。
- 教授申請之產學合作計劃提案不可包含機密資訊；申請教授同意產學合作計劃提案不包含機密資訊，僅供台積公司內部產學合作計畫審核使用。

# 台積電2025年產學合作計畫 題目

- 1 AI-Driven Adaptive Power Planning from Floorplan to ECO
- 2 Compute-in-Memory Compilation Toolchain in a Multi-Core Architecture
- 3 Advancing In-Memory P-bits with SOT/STT Magnetic Tunnel Junction Technology
- 4 Analysis of Contact Engineering of P-type SnO Transistors for BEOL Application
- 5 Advanced magnetic materials for millimeter-Wave inductor
- 6 Conductive PO basefilm formulation and film property verification
- 7 Establish a Simulator and AI Model to Predict Thermosetting Material Flowability
- 8 Thin film interface characterization numerical and experimental methodology
- 9 Advanced wafer-level thermal solution for SoIC technology
- 10 Through controlling phase shift and inverse design to achieve mode-controllable miniaturized mode division multiplexing devices
- 11 Emerging CMP Technology for Advanced Interconnects
- 12 Novel Materials with Anisotropic Conduction for Low-R Interconnect
- 13 Dirac source MOSFET with steep subthreshold slope
- 14 Smallest Thermal Strain Geometry Structure of CNT Networks
- 15 Machine-Learning-Assisted CFET MOL Layout Pattern Generation for Interconnect Resistance/Capacitance Modeling
- 16 Compact Modeling for Layout-Dependent Thermal Behavior of Circuits
- 17 Evaluation of Neural-Network-Based and Equation-Based Approaches for Predictive IV/CV Models of 2-D Devices
- 18 Epitaxial nanosheet-structure to boost device in GAAFET technology
- 19 Study of new optical methods to provide distinct signals for different dielectric materials by using non-linear optical effects
- 20 To simulate small trench and nano-sheet, WET chemical clean and lateral etch behavior (MG loop, H<sub>2</sub>O<sub>2</sub>/NH<sub>4</sub>OH, TiN ALO)
- 21 二氧化碳再利用關鍵催化劑材料和轉換機制研究