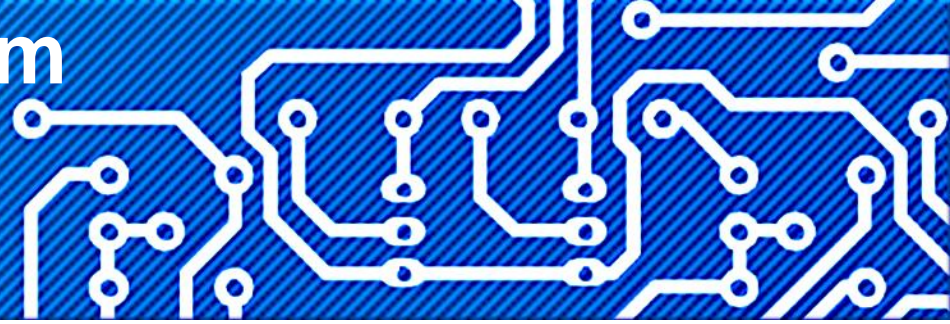


International Symposium on Physical Design



March 12-15, 2024, Taipei, Taiwan

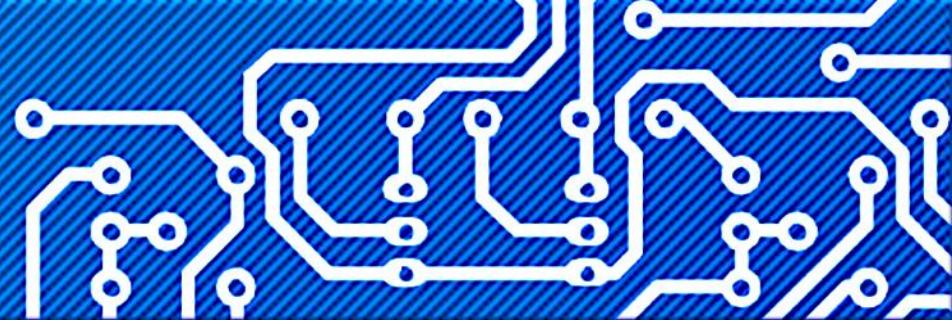


Welcome to the 2024 ACM International Symposium on Physical Design

Iris Hui-Ru Jiang (National Taiwan University)

ISPD 2024 General Chair

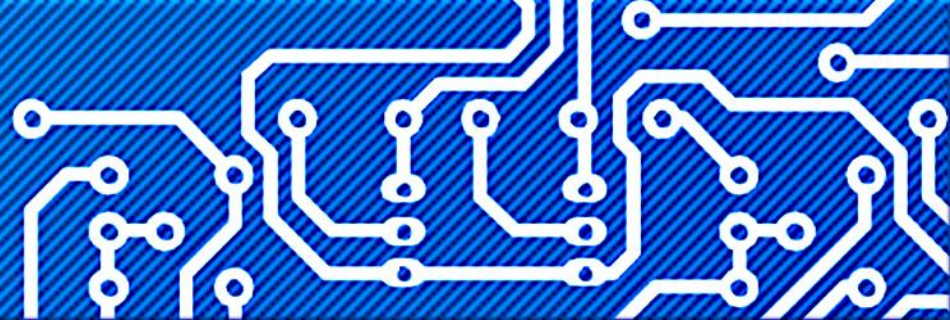
ISPD Timeline



- 2019 San Francisco was in person!
- ✗ 2020 Taiwan skipped, papers published
- 2021 Online with 167 attendees
- 2022 Planned for Banff in Canada
→ Online with 196 attendees
- 2023 Online with 239 attendees
- 2024 Taiwan, finally!

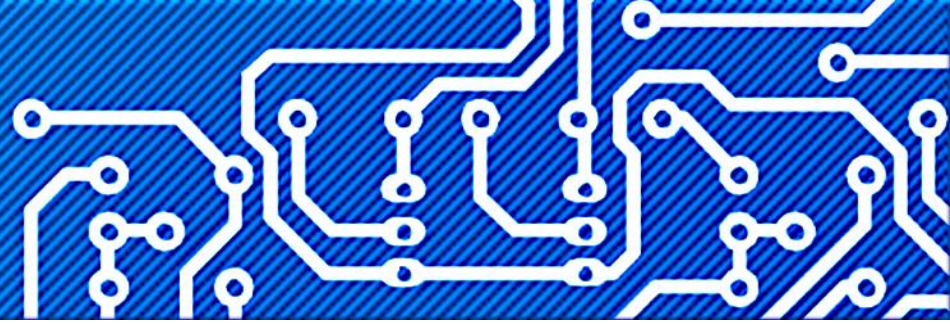


Symposium Logistics



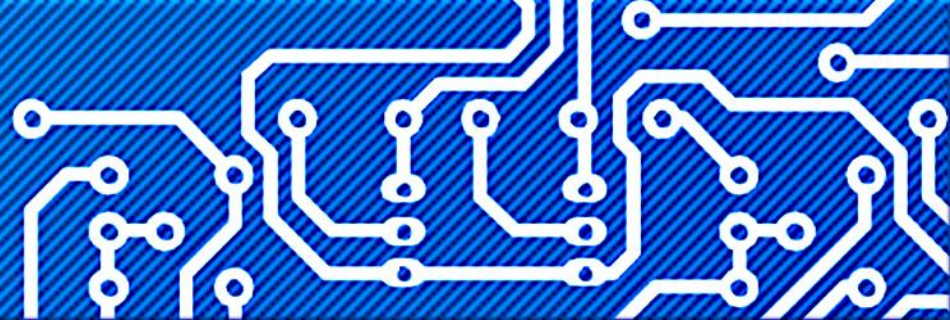
- 16 sessions across 3 days
 - Mar. 13-15, Wednesday, Thursday, Friday
- Starts each day at 8:30am in Taipei time
- First session of each day is a keynote, then paper sessions.
- All presentations will be in person.
- After conference, they will be available on YouTube
- Slide PDFs will be available at www.ispd.cc/?page=program
- Papers will be available around mid-March in the ACM Digital Library

Session Logistics



- Paper sessions:
 - The session chair introduces the session topic and themselves.
 - The session chair introduces each speaker with their bio, maximum of 1 minute.
 - Regular talks are 12 minutes in length, with 5 minutes for questions.
 - Budget one extra minute for transitions between speakers.
 - Extra discussions related to the session topic will be at the end of the session in a panel style, in which all speakers can respond to questions.
- Keynotes: 35 to 40 min presentation, followed by Q&A
- There is no break between the keynote sessions and the following session on Thursday and Friday, so the handover there needs to be quick.
- For other sessions, there is 10-to-20-minute breaks between sessions
- We suggest speakers and session chair arrive at the session room during the break before the session.
 - Update and test the slides

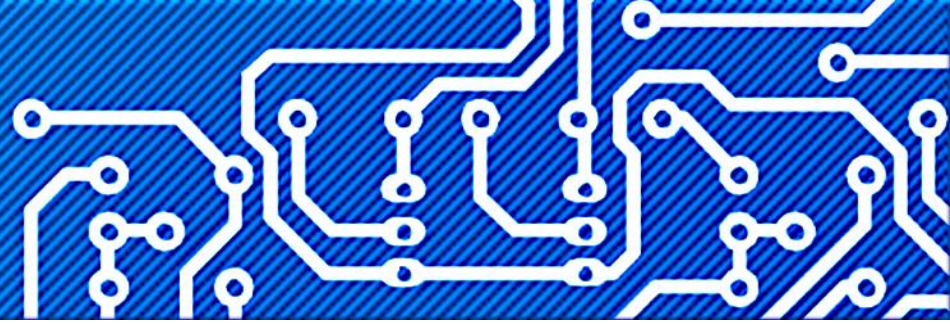
Award: Lifetime Achievement



- 2024 Lifetime Achievement Award goes to Professor Martin D. F. Wong for his pioneering contributions in the algorithmic aspects of physical design.
- Congratulations from all of us!
- Commemoration session: 15:30 - 17:30, Thursday

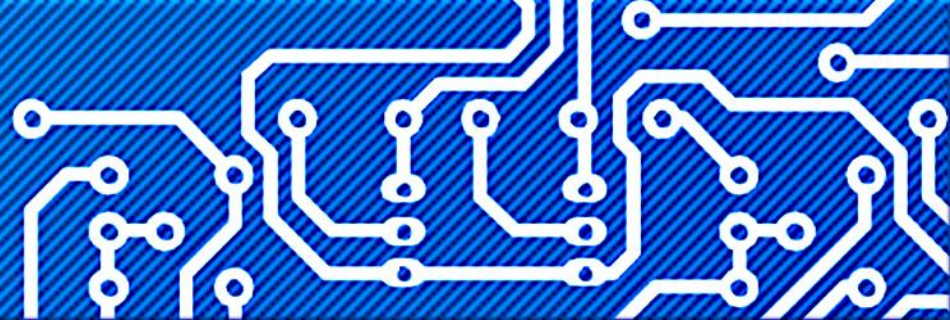


Technical Program



- ISPD 2024 submission summary
 - 62 abstracts submitted and 48 papers reviewed
 - Double-blind review process and virtual TPC meeting
 - 18 papers accepted with 2 best paper candidates
- We also have 3 keynotes, 16 invited talks, 6 panelists on EDA Challenges at Advanced Technology Nodes, and 4 talks from Professor Wong's labmate and former students.
- Topics: partitioning and clustering, placement and legalization, timing and power optimization, reliability (IR drop), 3D ICs, analog design automation.
- Techniques: advanced mathematical programming, satisfiability problem solving, GPU acceleration, and machine learning.

Keynotes



- **Wednesday:**

- Engineering the Future of IC Design with AI, Ruchir Puri (IBM Research)

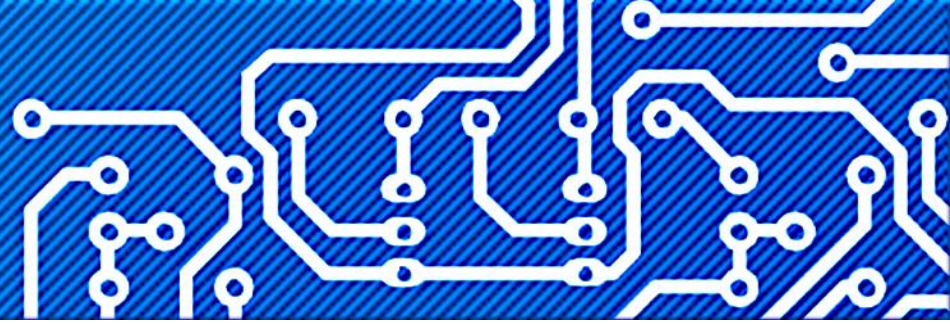
- **Thursday:**

- Physical Design Challenges in Modern Heterogeneous Integration, Yao-Wen Chang (National Taiwan University)

- **Friday:**

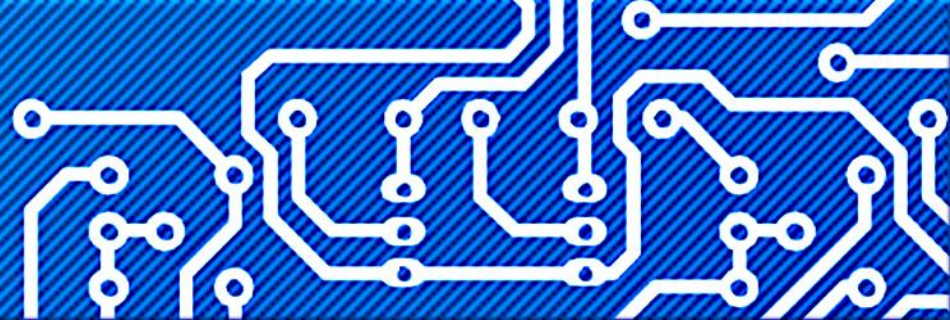
- Computing Architecture for Large-Language Models (LLMs) and Large Multimodal Models (LMMs), Bor-Sung Liang (MediaTek)

Best Paper Candidates



- **Session 9: IncreMacro: Incremental Macro Placement Refinement**
 - Yuan Pu, Tinghuan Chen, Zhuolun He, Chen Bai, Haisheng Zheng, Yibo Lin and Bei Yu (The Chinese University of Hong Kong, Shanghai AI Laboratory, Peking University)
- **Session 10: Novel Transformer Model Based Clustering Method for Standard Cell Design Automation**
 - Chia-Tung Ho, Ajay Chandna, David Guan, Alvin Ho, Minsoo Kim, Yaguang Li and Haoxing Ren (Nvidia)
- Gracieli will announce the winner in the last session

Organizing Committee



Steering Chair
David Chinnery
Siemens EDA



General Chair
Iris Hui-Ru Jiang
National Taiwan University



Program Chair
Gracieli Posser
Cadence Design Systems



Publication Chair
Stephan Held
University of Bonn

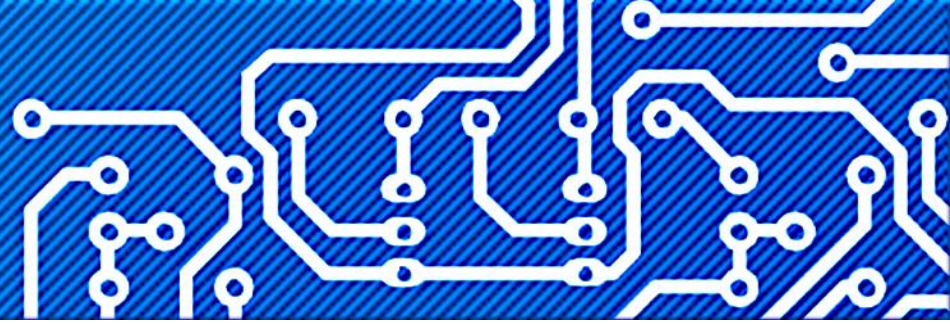


Publicity Chair
Tung-Chieh Chen
Synopsys



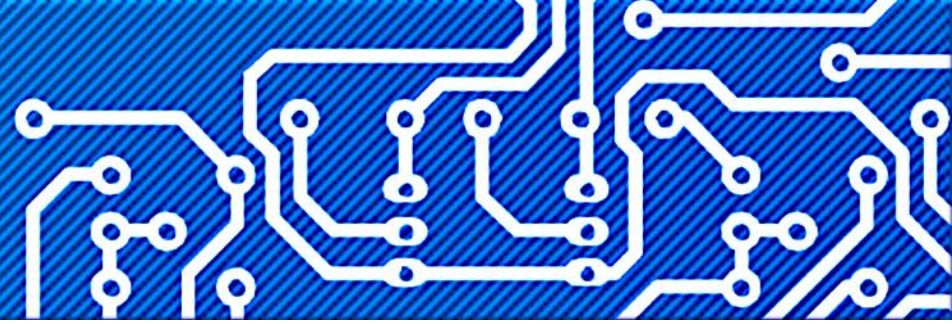
Finance Chair
Joseph Shinnerl
Siemens EDA

Steering Committee



David Chinnery (Chair)	Siemens EDA
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Desmond Kirkpatrick	Intel
Ismail Bustany	AMD
Jens Lienig	Dresden University of Technology
Mark Ren	Nvidia
Patrick Groeneveld	Stanford University
Prashant Saxena	Synopsys
Stephen Yang	Leda Technology
Yao-Wen Chang	National Taiwan University
Zhuo Li	Cadence Design Systems


Program Committee



Gracieli Posser - Cadence Design Systems - Technical Program Chair

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Ben Trombley	IBM
Benjamin Tan	University of Calgary
Giorgos Dimitrakopoulos	Democritus University of Thrace
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Jianli Chen	Fudan University & Leda Technology
Johann Knechtel	New York University
Meghna Mankalale	Synopsys
Pei-Yu Lee	Synopsys
Ramprasath S	Indian Institute of Technology Madras
Rongjian Liang	NVIDIA Research
Shao-Yun Fang	Taiwan Tech
Shounak Dhar	AMD
Stephan Held	University of Bonn
Tiago Reimann	Siemens Digital Industries Software
Tsun-Ming Tseng	Technical University of Munich
Tung-Chieh Chen	Maxeda Technology
Yibo Lin	Peking University

March 12-15, 2024
Taipei, Taiwan

 Association for
Computing Machinery
Advancing Computing as a Science & Profession

ISPD '24

Proceedings of the 2024 International Symposium on
Physical Design

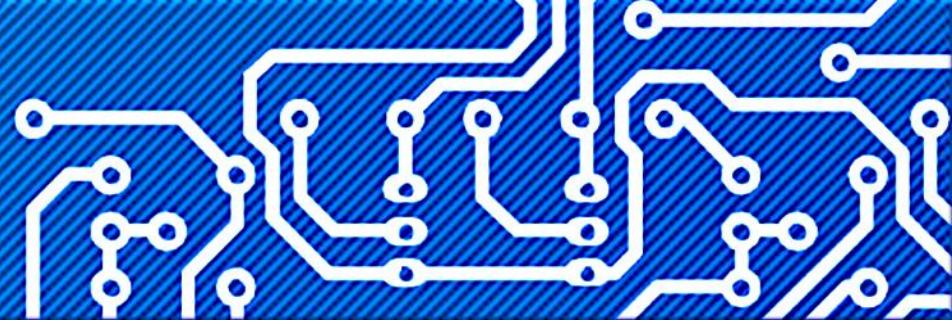
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General Chair:
Iris Hui-Ru Jiang (National Taiwan University)

Steering Committee Chair:
David Chinnery (Siemens Digital Industries Software)

Technical Program Chair:
Gracieli Posser (Cadence Design Systems)

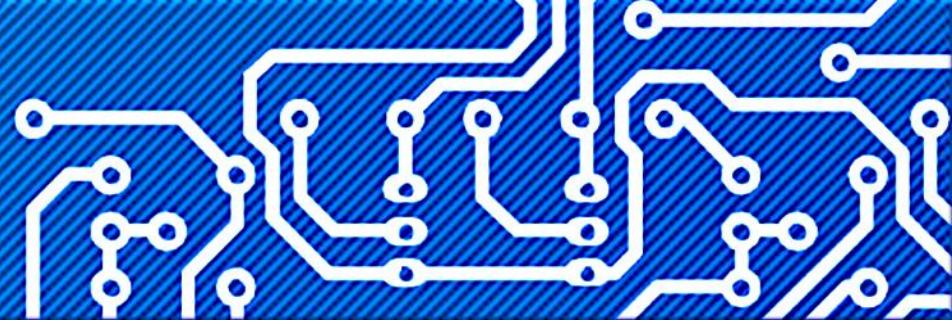
Additional Reviewers



Apostolos Stefanidis
Chia-Tung Ho
David Chinnery
Dimitrios Mangiras
Hongduo Liu
Jiarui Wang
Jing Mai
Joseph Shinnerl
Keren Zhu
Kishor Kunal
Lancheng Zou
Peiyu Liao
Peng Xu

Shixin Chen
Shuo Yin
Siting Liu
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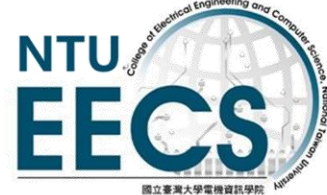
- Gold



- Silver

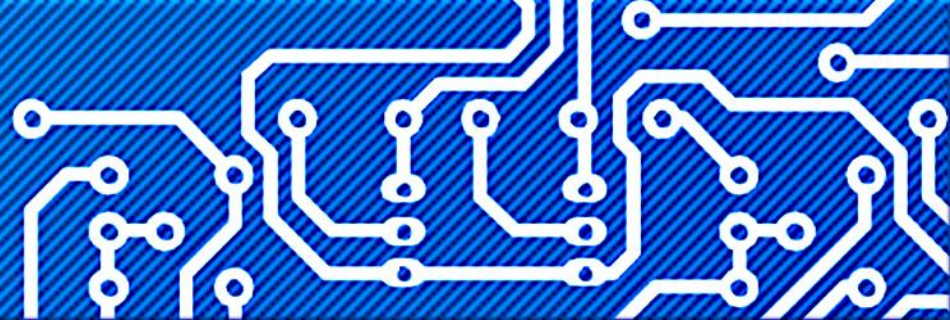


- Institutional Donor



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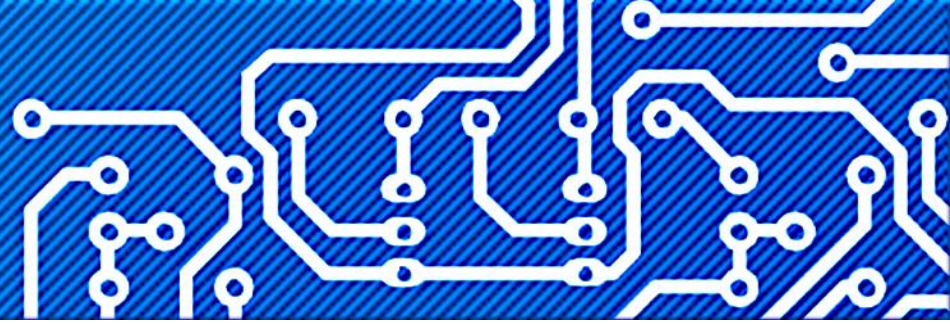
A big thank you!



My thanks to all of you for making this a great conference:

- Speakers, sessions chairs, and all of the attendees
- Organizing committee and steering committee members
- Technical program committee and additional reviewers
- ISPD 2024 contest organizers
- ACM, particularly the folks behind the scenes who helped
- Sheridan Communications for help with the proceedings
- IEEE, our corporate sponsors, EECS college @ NTU
- We are a community. Your great research and contributions make all this possible.
- A warm welcome to you all!

Banquet

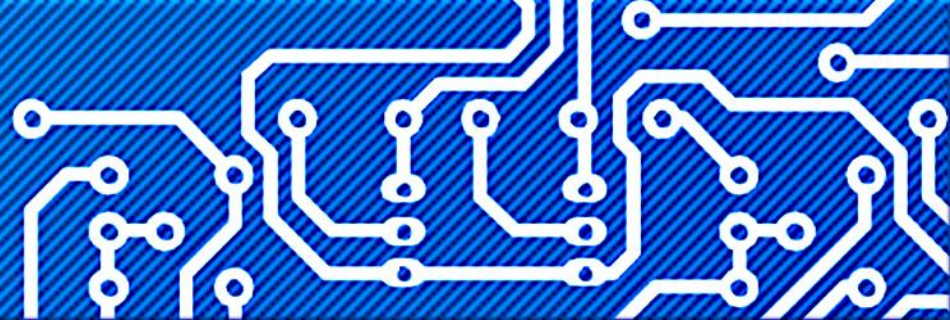


- 18:30 – 20:30, Thursday
- Shuttle bus departure at 17:50
- **Bring your badge and banquet ticket**
- 2F, LEO, Le Meridien Taipei

Le **MERIDIEN**
TAIPEI
台北寒舍艾美酒店



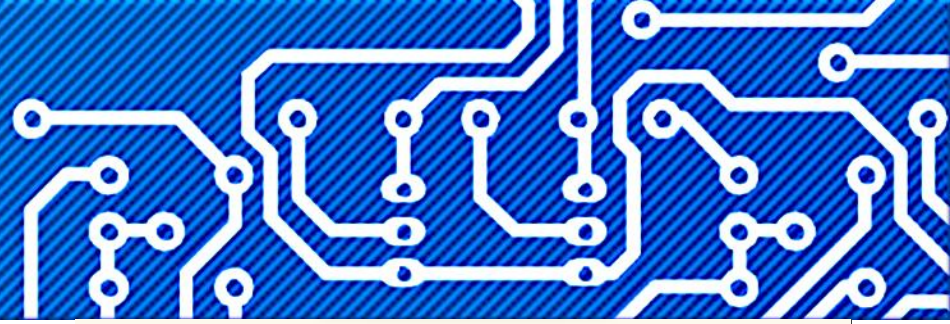
Social Tour



- 12:40 - 20:00, Friday
- **Gather time: 12:40 @ registration desk**
 - **Bring your badge and ticket**
- Northeastern coast (Geopark) + Yangmingshan Hot Spring + dinner
- **Must wear swimsuit + swim cap to enjoy hot spring**
- **Casual/walking shoes**
- **Umbrella**
- **A change of clothes**



The Secret of Your Badge



ISPD '24
33rd ACM International Symposium on Physical Design
2024.03.12-2024.03.15

National Taiwan University
Iris Hui-Ru Jiang

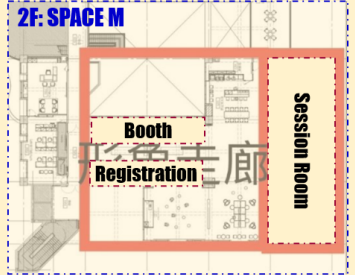


Mar. 13	Session 1	Opening / Keynote I
	Session 2	Partitioning & Clustering
	Session 3	Timing Optimization
	Session 4	Panel
	Session 5	3D IC
	Session 6	AI & ML
Mar. 14	Session 7	Keynote II
	Session 8	Analog
	Session 9	Placement
	Session 10	Standard Cell, Routability, & IR Drop
	Session 11	Thermal Analysis & Packaging
	Session 12	Lifetime Achievement Session
Mar. 15	Session 13	Keynote III
	Session 14	Quantum & Superconducting Circuits
	Session 15	PD Challenges for Automotive
	Session 16	ISPD 2024 Contest / Closing Remarks

More Info. NTU MAP Taipei Metro APP: Bus Tracker Taipei



Floorplan MK Innovation Hall



4F: Von Neumann Room [417] [427]
Overflow Room / Networking Staff

Mar. 12 Reception: 台北福華大飯店-花園大道
The Howard Plaza Hotel Taipei [4F, Park Avenue]
Mar. 14 Banquet: 台北福舍艾美酒店-軒轅廳
Le Méridien Taipei [2F, LEO]

Hello. 你好。 Thank you. 謝謝。 How much? 多少錢?

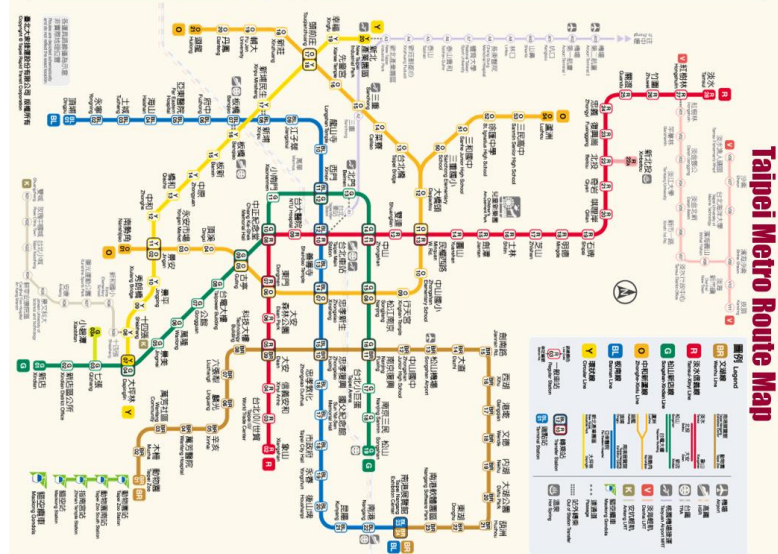
Excuse me. Can you hail a taxi for me please?
可以麻煩您幫我叫一台計程車嗎?

I want to go to _____. 我想要去_____。
National Taiwan University (臺灣大學)
Palace Museum (故宮)
Taipei 101 (台北101)
Din Tai Fung (鼎泰豐)
Toilet (廁所)
MRT Station (捷運站)
Le Méridien Taipei (寒舍艾美酒店)

Do you have an English menu? 請問有英文菜單嗎?
Is it spicy? 辣嗎?

What do you recommend? 你推薦什麼?
I am vegetarian. 我吃素。

Do you have Wi-Fi here? 這裡有Wi-Fi嗎?
May I charge my phone? 可以借充電嗎?





I ♥ 24



TAIPEI TAIWAN