

國家重點領域國際合作聯盟

UAAT-UI 徵案說明會

UAAT 聯盟秘書處

2024/07/08

1 徵案說明

何謂教育部國家重點領域國際合作聯盟(UAAT)？

為強化吸引優秀國際生來臺就讀與留臺工作，教育部籌組**國家重點領域國際合作聯盟 (UAAT)**，透過大學聯盟盟校之雙邊共同合作發展，達成未來世代產業技術突破、及人才培育與發展。

今年(2024)正在展開徵件之聯盟/系統有：

1. 美國德州農工大學系統
2. 美國德州大學系統
- 3. 美國伊利諾大學系統**
4. 日本九州沖繩開放大學聯盟
5. 捷克大學聯盟

2 徵案目標、研究主題

計畫目標

為鼓勵雙邊研究人員及學生交流，促進學術合作與培育人才，以及為未來 Grand Challenge Project 奠定良好國際合作基礎及夥伴關係。

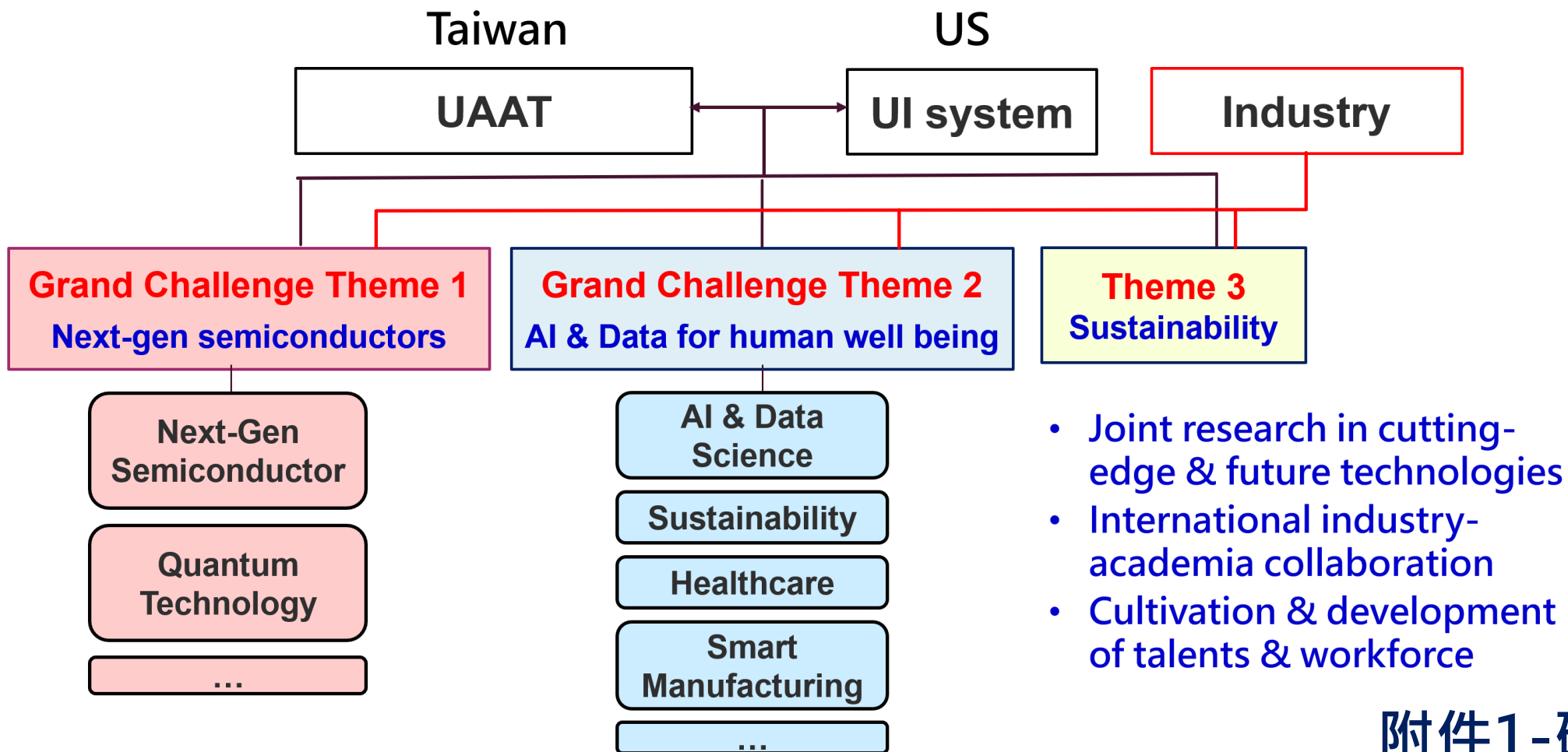
研究主題

1. Next-generation Semiconductor (+Quantum)
2. AI & Data for Human Well-Being、
3. Sustainability

附件1-研究主題

3 研究主題

Collaboration Framework between UAAT & UI



4 研究子題

Next-generation Semiconductor (+Quantum)

1. **Advanced VLSI:** technologies beyond 1 nm, IC design innovation, advanced packaging (heterogeneous integration/interconnect, 3D/2.5D IC, chiplet stacking), advanced memories, advanced materials, smart manufacturing & metrology etc.
2. **Next-gen compound semiconductors:** power & high speed devices and integrated circuits
3. **Quantum computing/communication/information:** materials, devices, architectures, software, simulation application, integration of quantum processor with high performance computing etc.
4. **Quantum & nano photonics** for quantum technology

Sustainability

1. **Carbon** reduction, capture, storage and utilization for net zero
2. **Nature based solutions:** data, assessment, analysis and strategies
3. **Circular economy**
4. **Green energy:** renewable energy, energy storage, integration & operation
5. **Environment:** climate change, disaster prevention/recovery, water management, pollutant monitor/control, urban development, governance, resilience
6. Policy, economic, and technical analyses

AI & Data for Human Well Being

1. **Advanced AI & Data technologies:** efficient and trustworthy deep learning, multimodal machine learning, generative AI, efficient mining on data streaming, geospatial information technology for urban environment and health, etc.
2. **AI hardware:** intelligent edge computing, LLM (large language model) accelerator, in-memory computing, low precision/analog computing, digital twins for urban environment/climate change/health, etc.
3. **AI applications:** smart healthcare, smart manufacturing, cybersecurity, robotics, autonomous/smart vehicles, computer vision, remote sensing, engineering, materials, agriculture, education, business, etc.

Collaboration Schemes and Activities

1. Joint research (developing large Grand Challenge Project/joint lab 、 joint research center/consortium)
2. International industry-academia collaboration
3. Overseas/visiting research
4. Student & faculty exchange/internship program
5. Short-term courses/intensive courses/workshop
6. Academic conferences/professional activities
7. Joint/dual degree

5 申請資格

申請資格

- 各申請案須至少包含**2所UAAT聯盟成員學校**、**1所U of I伊利諾成員單位**。
- 主持人須於計畫執行期間為所屬學校/單位之編制內**專任**教研人員。

附件2-學校名單

University of Illinois System :

- University of Illinois Urbana -Champaign
- University of Illinois Chicago
- University of Illinois Springfield
- University of Illinois System units

University Academic Alliance in Taiwan :

- National Taiwan University
- National Cheng Kung University
- National Tsing Hua University
- National Yang Ming Chiao Tung University
- National Sun Yat-sen University
- National Taipei University of Technology
- National Chengchi University
- National Chung Hsing University
- National Central University
- National Taiwan Normal University
- Taipei Medical University
- National Taiwan University of Science and Technology

UAAT				
Principal Investigator	Name		Position/Title	
	姓名		職稱	
	University		Department/Institution	
	學校		系所/單位	
Co-PI	Name		Position/Title	
	姓名		職稱	
	University		Department/Institution	
	學校		系所/單位	
Contact Person	Name		Position/Title	
	姓名		職稱	
	Phone/ Mobile		E-mail	
U of I System				
Principal Investigator	Name		Position/Title	
	University		Department/Institution	
Co-PI	Name		Position/Title	
	University		Department/Institution	
Contact Person	Name		Position/Title	
	Phone/ Mobile		Email	

附件2-學校名單

6 徵案說明

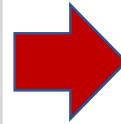
計畫申請資訊/計畫要求

1. 提案必須說明計畫的**重要性**、**技術層面**、**整體規劃**、可能衍生的**智慧財產權**問題，以及計畫發展至**更大規模計畫之潛力**，包含發展前景、藍圖以及預期效益等。
2. 為促進**國際產學合作**，鼓勵與產業合作與建立夥伴關係（例如來自產業的配合款、實習機會、研發合作、合聘人力/人才發展等形式）。**包含企業/產業合作夥伴且具明確規劃之申請案將獲優先考量**。
3. 應明確說明規劃舉辦之活動，對**雙方學校/單位可產生的效益與協同效應**。
4. 所提計畫應具有科學與技術價值，展示創新性以及對經濟/社會的影響，並作為推動**Grand Challenge**的催化劑。

2. Project Description (max. 10 pages)↵

may include the following:↵

- 2.1 Background Introduction and Importance of the Joint Research Project↵
- 2.2 Project Objectives, Plans, and Activities↵
- 2.3 Project Teams, Organization, and Synergies (including roles and participation of young scientists)↵
- 2.4 Milestones and Timelines↵
- 2.5 Expected Outcomes and Impacts (including the promotion of talent circulation/exchange)↵
- 2.6 Intellectual Property Management↵
- 2.7 Roles and commitment from Industry Partner (Optional)↵
- 2.8 Possible Future Collaboration Plans and Development (e.g., developing into Grand Challenge project, industry-academia collaboration, talent cultivation, international projects, joint research center/consortium, etc.)↵



7 計畫執行指標

3. Expected Outcomes [↙]

Collaboration Activity [↙]	Item [↙]	Total Number [↙]
A. Joint Research Activity[↙] (For example: Publication; Form joint laboratory/Consortium/Center) [↙]	Journal Publication [↙]	↙
	Conference Publication [↙]	↙
	Joint Laboratory/Consortium/Center [↙]	↙
	Joint Application or Acquisition of Large-scale or International Projects/Grants [↙]	↙
B. Students and Faculty Exchange[↙] [↙] *Degree/Dual-degree programs: For UAAT, this could be implemented based on participating university's existing degree/dual-degree programs. [↙]	(To Taiwan) [↙] International Visiting Scholars [↙]	↙
	(To Taiwan) [↙] International Exchange Students [↙]	↙
	(To Taiwan) [↙] * Degree/Dual-degree students [↙]	↙
	(To U of I) [↙] Faculty and Scholar International Visits [↙]	↙
	(To U of I) [↙] Students' International Exchange [↙]	↙
	(To U of I) [↙] * Degree/Dual-degree students [↙]	↙

C. Internship Programs[↙]	(To Taiwan) [↙] Industry Internship [↙]	↙
	(To Taiwan) [↙] University Internship [↙]	↙
	(To U of I) [↙] Industry Internship [↙]	↙
	(To U of I) [↙] University Internship [↙]	↙
D. Short-Term Courses/Intensive Courses/Workshops & Academic Conferences/Professional Activities[↙]	(Activity Name)/ Number of Participants [↙]	↙
	(Activity Name)/ Number of Participants [↙]	↙
	(Activity Name)/ Number of Participants [↙]	↙
E. International Industry-Academia Collaboration[↙] (For example: Projects, Internships, Intellectual Properties, Technical Transfers, etc.) [↙]	(Collaboration Item)/ Number of Cases [↙]	↙
	(Collaboration Item)/ Number of Cases [↙]	↙
	(Collaboration Item)/ Number of Cases [↙]	↙

除研究合作外，強烈建議各計畫包含一定之**人才培育**及**交換**之規劃，建議列出我方從合作中所得之效益。

8 計畫經費

補助經費

- 核定各核定計畫案至多獲總補助金額約 150,000 USD (約新臺幣 4,800,000 元) 為原則。補助經費由 UAAT 與 UI 各出資一半。
- 計畫案件數與金額，將考量審查結果及整體預算後核定。

Project Year Budget Category	MM/DD/YYYY to MM/DD/YYYY			
	U of I (USD)	UAAT (NTD)	Other U of I Sources (optional)	Other UAAT Sources (optional)
Sponsorships				
1. Personnel				
2. General Expenses				
Local Collaboration Research Expenses				
Local Collaboration Activity Expenses				
3. International Travel Expenses				
4. Equipment				
Overhead		(optional)		
Total				

Note: The allocation of UAAT's overhead is optional, with a cap set at 15% of the general expenses.

9 審查要點

Criterion	%
1) Scientific merit , technical merit, excellence of innovation potential, potential impact	40%
2) Clear plan and goals for the activity during the one-year program	20%
3) Description of the UAAT and U of I PI' s research profiles (excellence of project leaders, scope of the fields/labs represented in the proposed activity) and synergy between them	20%
4) Information on how the cooperation can be sustained beyond the initial funding phase, plans for securing funding for the project at the end of this grant, and other forms of future development (e.g., commercialization, economic impacts etc.) that are envisioned. Suitable outline of how the future development or the generation of the listed benefits will be achieved, if applicable. Plans to assess and validate the quality and effectiveness of the project' s outcomes. Higher priority will be given to proposals that include corporate/industry partners and university-industry collaboration.	20%

所有申請書將由 **UAAT** 和 **伊利諾大學** 代表組成的聯合委員會共同進行審查。

10 其他

計畫執行期限

1. 經費使用期限為一年，自**2024年12月1日**起至**2025年11月30日**止。

(除非獲得雙方共同的允許，否則不會超出此時間範圍。)

計畫限制

1. 已獲UI-UAAT 2024年先期合作計畫補助團隊可再次提出申請，惟須於本次計畫申請書中明確敘明於**主題、範疇、架構及整體影響力等方面的顯著差異**。

計畫必備/選項文件

附錄(Appendices)

1. **UAAT/U of I** 系/研究所負責人的**書面認可聲明書**。
2. **產業夥伴**或其他第三方合作夥伴的意向書/支援書(可選)

11 徵案說明

線上媒合會議

1. UAAT聯盟與U of I伊利諾將於臺灣時間**7月24日(星期三)上午9:00-10:00**聯合舉辦線上媒合會議。
2. 有興趣參與本計畫之教師，可於**7月15日前**至Information and Partnering Webinar網頁進行報名
<https://forms.illinois.edu/sec/694334654>
3. 如您有興趣於Webinar進行**2-3分鐘**的簡介敬請於**7月20日(星期六)**前，將研究介紹(1頁)以及簡報檔寄至menolan@illinois.edu。

計畫申請方式

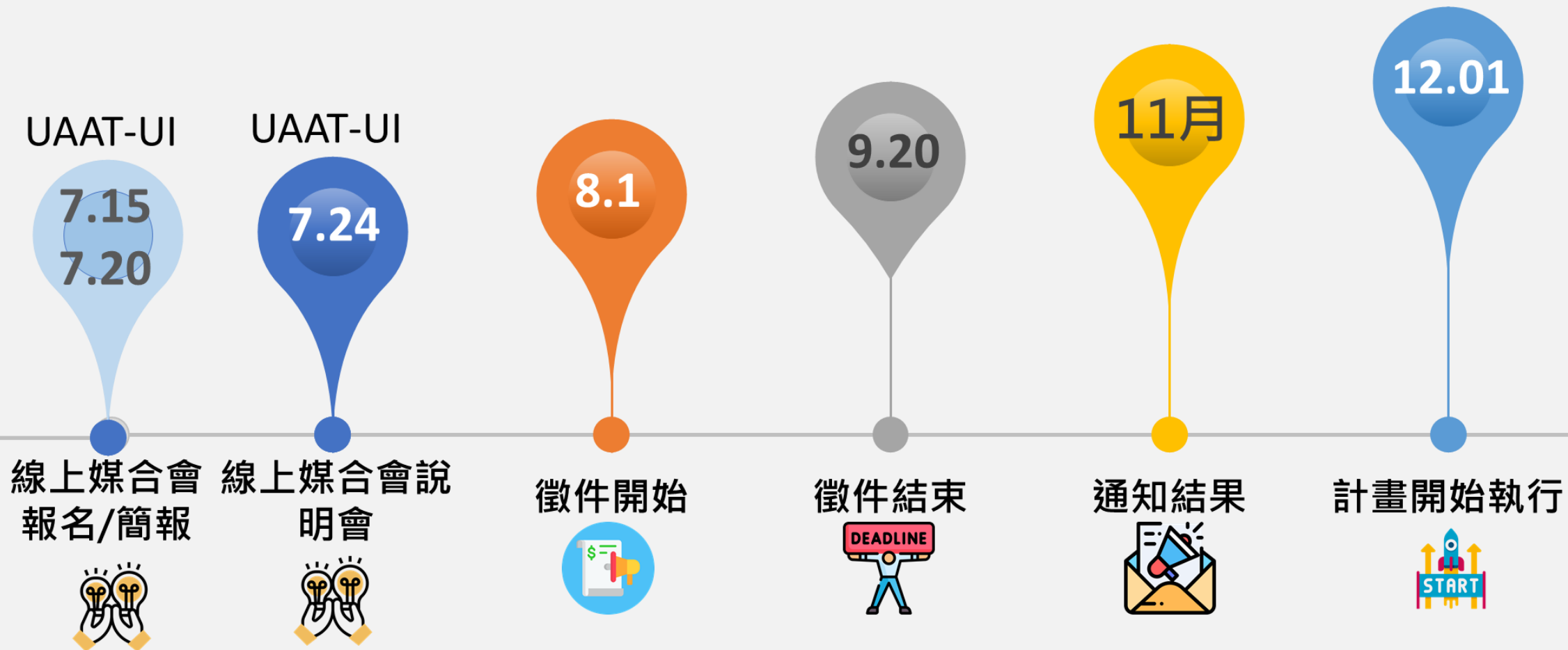
請詳閱**計畫申請書**及**徵案說明**，並將**共同計畫提案書****9月20日(星期五)前**提交至線上申請系統。

<https://forms.illinois.edu/sec/970353279>

附件3-計畫申請書格式

附件4-徵案說明

12 重要時程



Q&A 時間

University Academic Alliance in Taiwan

Chia-Lin Huang (黃佳琳經理)

Secretariat of University Academic Alliance in Taiwan (UAAT)

Email: clhuang636@ntu.edu.tw

Phone : +886 (0) 2 3366 3267

University of Illinois System

Jisu Hong

AVP, Office of the Vice President for Economic Development and Innovation

Email: jisuhong@uillinois.edu

Phone: +1 217-300-6686