

# NAPAI Agentic AI Innovation Competition for Campus Applications

## Competition Rules

*National Agentic & Physical AI Initiative (NAPAI)*

Competition Website: <https://napaincu.github.io/aaic2026/>

### 1. Purpose of the Competition

Artificial intelligence has developed rapidly in recent years. However, when AI is actually deployed in campus, industrial, and public-service settings, it still faces challenges involving requirements understanding, process integration, data governance, access control, system reliability, and dynamic environments. The Ministry of Education's National Agentic & Physical AI Initiative (NAPAI) aims to cultivate talent capable of bridging the gap between models, simulations, and the real world. The competition encourages students to start from user needs and use Agentic AI to build intelligent applications that can reason, plan, invoke tools, integrate systems, and adapt subsequent actions based on execution results.

The competition is centered on the principle of “real-world problems, student teams solving them with Agentic AI, and outcomes that are operable, evaluable, controllable, and verifiable in real-world settings.” Students from universities and colleges across Taiwan are invited to address actual needs in campus and partner settings and develop innovative solutions with technical depth, user value, and potential for broader adoption.

### 2. Organizing Entities

| Category                                     | Organization                                                                                                                                                      |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Supervising Authority                        | Department of Information and Technology Education, Ministry of Education                                                                                         |
| Organizer                                    | National Agentic & Physical AI Initiative (NAPAI) / <a href="https://napaincu.github.io">https://napaincu.github.io</a>                                           |
| Implementing Institutions                    | Department of Computer Science and Information Engineering, National Central University; Graduate Institute of Information Management, National Taipei University |
| Partner Event                                | The 31st International Conference on Artificial Intelligence and Applications (TAAI 2026) / <a href="https://taai2026.github.io/">https://taai2026.github.io/</a> |
| Co-organizers / Field and Technical Partners | As announced on the competition website                                                                                                                           |

### 3. Definitions and Minimum Requirements for Entries

For the purposes of these rules, Agentic AI refers to a goal-oriented AI system capable of planning, decision-making, tool invocation, or system interaction according to the state of a task, and of adjusting subsequent actions based on intermediate results, errors, or user feedback.

An entry must satisfy Item 1 below and at least two of Items 2–4:

1. Goal orientation and task decomposition: The system can decompose a goal into two or more sequentially dependent steps and advance the task according to execution status.

2. Tool or external-system invocation: Depending on the context, the system can select and use APIs, databases, knowledge bases, university administrative systems, software tools, cloud services, or devices.
3. State management and dynamic adjustment: The system can revise its plan, retry, switch to alternative tools, or terminate a task based on intermediate results, errors, environmental changes, or user feedback.
4. Access control and risk management: The system incorporates appropriate safety mechanisms such as human confirmation, permission restrictions, operation logs, failure recovery, or output verification.

Entries consisting only of single-turn question answering, one-time content generation, pure document-retrieval QA, completely fixed automation without state-based decision-making, or video-only simulations without a verifiable system generally do not meet the minimum requirements. Multi-Agent architectures, long-term memory, self-reflection, and self-repair are not mandatory. They should be adopted only when justified by the problem, and judges will focus on appropriateness rather than technical stacking.

## 4. Competition Categories, Application Themes, and Technology Tags

### 4.1 Competition Categories

Each team shall select one category.

1. Campus Self-Proposed Problem Category: The team identifies a real problem in university teaching, learning, research, administration, services, or campus life, and independently obtains user interviews, process information, or a test setting.
2. Field-Specified Problem Category: The team develops a solution based on topics, data, APIs, or test environments announced by the organizer, partner universities, companies, or organizations. Restrictions and available resources for each topic shall be subject to the competition website announcements.

### 4.2 Application Themes

| Theme                                            | Scope                                                                                                                                                                                                     |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Smart Academic Administration & Learning Support | Course selection, learning diagnosis, academic advising, teaching assistance, personalized learning paths, and learning-outcome analysis.                                                                 |
| Campus Administration & Service Processes        | Forms, documents, regulations and policy queries, cross-unit applications, campus-life services, and process automation.                                                                                  |
| Library, Research & Knowledge Services           | Library collection and knowledge-base retrieval, research exploration, literature synthesis, resource recommendation, and research administrative support.                                                |
| Industry & Public-Sector Co-Creation             | Knowledge management, customer service, query and analysis, process automation, IoT, or other applications proposed by partner companies, corporations, government agencies, or non-profit organizations. |

Each team shall select one theme. The organizer may reassign an entry to a different track based on the substantive nature of the work.

### 4.3 Technology Tags

At registration, teams may select multiple technology tags, including Agentic Workflow, Domain-Specific Agent, Multi-Agent Collaboration, RAG / Knowledge Agent, Physical / Digital Embodiment, Human-in-the-loop,

or other relevant tags. These tags are used for judging allocation and outcome analysis and do not affect the assigned competition category or application theme.

## 5. Competition Schedule

| Stage                                             | Date                                     | Description                                                                                                                        |
|---------------------------------------------------|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Rules Announcement & Registration Opens           | August 28, 2026 (Friday)                 | Competition rules, registration form, and field topics will be published on the competition website.                               |
| Registration Deadline                             | September 11, 2026 (Friday), 23:59       | Online registration must be completed.                                                                                             |
| Competition Briefing & Capacity-Building Workshop | September 18, 2026 (Friday), 14:00–16:00 | Course content, materials, and format will be announced separately.                                                                |
| Preliminary Submission Deadline                   | October 16, 2026 (Friday), 23:59         | Upload preliminary-round materials to the designated platform.                                                                     |
| Finalist Announcement                             | November 6, 2026 (Friday)                | Announced on the competition website; finalist teams enter the coaching and prototype-refinement stage.                            |
| Final Submission Deadline                         | November 13, 2026 (Friday), 23:59        | Submit the updated presentation, technical documentation, test materials, and demonstration requirements.                          |
| Final Competition & Showcase                      | November 21, 2026 (Saturday)             | Held at The Great Roots Resort in Sanxia District, New Taipei City, in conjunction with TAAI 2026 exhibition and award activities. |

The organizer may adjust the schedule, format, or venue due to venue conditions, natural disasters, epidemics, system issues, or other necessary circumstances. Any changes shall be subject to the latest announcement on the competition website.

## 6. Eligibility and Team Rules

1. All currently enrolled students at universities and colleges in Taiwan, including master's and doctoral students, may participate regardless of major. Student status shall be determined as of the registration deadline.
2. Each team shall consist of two to five students and designate one team leader. A faculty advisor may be appointed. Teams conducting real-world field validation must additionally designate a field liaison; the faculty advisor and field liaison may be the same person.
3. Teams may be formed across universities, departments, and disciplines. Each student may participate in only one team. The same core work may not be submitted by different teams or in different categories.
4. Non-student faculty members, field personnel, or technical advisors may provide guidance, requirements clarification, and testing assistance, but may not complete the core design, programming, evaluation, or presentation/Q&A on behalf of the team.
5. Changes to team members, team leader, faculty advisor, or field liaison must be requested within seven days after the finalist announcement. Late changes are permitted only for special reasons and with organizer approval. Team members may only be removed or replaced and may not be increased beyond five.
6. Teams shall ensure that all registration information is truthful, that the work is original, and that the team complies with these rules, field-site regulations, and subsequent announcements by the organizer.

## 7. Field Collaboration, Needs Validation, and Resource Use

### 7.1 Field Validation Levels

| Level                               | Definition                                                                                                                                  |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Level 0 – Problem Hypothesis        | The team has proposed a problem, but has no evidence from target users or actual processes.                                                 |
| Level 1 – Needs Interviews          | Target users, process owners, or stakeholders have been interviewed, and pain points and requirements have been documented.                 |
| Level 2 – Data / Process Validation | De-identified data, process documents, test cases, API specifications, or other verifiable materials have been obtained.                    |
| Level 3 – Prototype Trial           | Actual users operate the prototype in a simulation, sandbox, or controlled environment and provide feedback.                                |
| Level 4 – Field Pilot               | The solution is deployed on a limited basis in a real organization, with operational records and quantitative before-and-after comparisons. |

Preliminary submissions should generally reach at least Level 1. To receive a high score for “Field Impact and User Validation” in the final round, Level 2 or above is generally expected. Where sensitive data, cybersecurity, or legal restrictions apply, teams may use de-identified data, synthetic data, sandboxes, or other alternatives approved by the organizer.

Field providers shall specify the problem, target users, current workflow, available resources, data restrictions, and contact person. They may not require teams to build a formal commercial or operational system free of charge under the name of the competition. Subsequent deployment, technology transfer, internships, or commercial cooperation shall be separately agreed upon.

When using field data, accounts, APIs, devices, or documents, teams may use them only for competition purposes and within the authorized scope. They may not publicly disclose, transfer, reverse engineer, access without authorization, or use such resources to train other models. After the competition, teams shall delete or return the resources as required by the provider.

The organizer plans to provide technical lectures and workshops.

## 8. Registration and Preliminary-Round Submission

Teams shall complete registration through the designated system on the competition website before the deadline. Late submissions, incomplete submissions, corrupted files, or links that cannot be accessed during evaluation may be rejected. Administrative omissions that can be corrected may be granted one opportunity for correction within a specified period.

### 8.1 Required Preliminary Materials

1. Proposal Presentation: PDF format, no more than 12 pages; the designated cover page, table of contents, and appendices are included in the page count. File name: “Category\_Theme\_TeamName\_Proposal.pdf”.
2. Concept / Demo Video: No more than four minutes. Team members must explain and demonstrate the problem, Agent task flow, tool invocation, prototype operation, or verifiable results. MP4 or an unlisted but accessible video link may be submitted.
3. Field Needs and Validation Materials: Include the source of the need, target users, interview or process evidence, field contact, and current validation level. A de-identified summary may be submitted when confidential information is involved.
4. Online Registration Form and Declarations: Complete information regarding the team, work, technologies, data, third-party resources, prior work, and participation in other competitions or receipt of other funding.

## 8.2 Required Content of the Proposal Presentation

- Real-world problem, target users, current process, and evidence of need.
- Why Agentic AI is necessary and why a conventional chatbot or fixed workflow is insufficient.
- Task flow, system architecture, models, tools, data sources, APIs, and external-system integrations.
- State management, human intervention, permissions, security, personal data, and failure-handling design.
- Prototype or proof of concept, test cases, evaluation metrics, baseline approach, and known limitations.
- Deployment, adoption, maintenance, cost, scalability, and future application plans.
- Team roles, original contributions, differences from prior work, and disclosure of third-party resources.

## 9. Preliminary Evaluation

The preliminary round consists of a document review of the proposal presentation, video, and field materials. Each entry receives a maximum score of 100 points. The organizer first conducts eligibility and document-completeness checks, followed by evaluation by a committee of experts from academia, industry, research, and relevant fields.

| Evaluation Criterion                 | Weight | Key Considerations                                                                                           |
|--------------------------------------|--------|--------------------------------------------------------------------------------------------------------------|
| Problem & Field-Need Evidence        | 20%    | Reality of the problem, understanding of users and processes, and quality of needs validation.               |
| Appropriateness of Agentic AI Design | 20%    | Task decomposition, decision-making, tool invocation, state management, and necessity of using an Agent.     |
| Technical & Data Planning            | 20%    | System architecture, integration, data quality, permissions, deployment, and engineering feasibility.        |
| Prototype & Validation Plan          | 15%    | Test cases, baselines, metrics, failure scenarios, and feasibility of completing the final prototype.        |
| Innovation & Scalability Potential   | 15%    | Novelty of the solution, degree of field improvement, and reusability across units, campuses, or industries. |
| Safety, Governance & Ethics          | 10%    | Personal data, cybersecurity, hallucination, bias, human review, traceability, and risk controls.            |

The number of finalists shall be determined by the organizer based on the number of submissions, work quality, venue capacity, and budget, and may be lower than the nominal target where necessary. Entries that fail to meet the minimum Agentic AI requirements, lack substantive original contributions, or present significant risks may not be selected.

## 10. Finalist Coaching and Pre-Final Submission

Finalist teams shall participate in briefings, coaching, and testing arranged by the organizer and submit the following by the final-submission deadline:

1. An operable prototype, test environment, or an alternative validation method approved by the organizer. If an account is required, a dedicated evaluator account with controlled permissions shall be provided.
2. A private or public GitHub / GitLab repository, or an encrypted source-code package designated by the organizer. If full source code cannot be provided due to licensing or field restrictions, auditable modules, interface documentation, execution records, and an explanation shall be submitted.

3. README / technical documentation covering architecture, installation and execution steps, dependencies, model and version information, APIs, environment variables, licenses, data flows, permissions, known limitations, and troubleshooting.

4. Agent evaluation materials including test cases, baseline approach, success rate, accuracy, latency, cost, error types, human-intervention rate, and at least one operation trace or event record.

5. Updated presentation, Demo video, field-validation records, third-party resource disclosure form, data and security self-assessment form, and final demonstration requirements.

All documents and source code must not contain passwords, API keys, non-de-identified personal information, or other unauthorized confidential information.

## 11. Final Competition and Evaluation Criteria

The final round will consist of an on-site operable Demo, presentation and Q&A, and exhibition / exchange activities. The presentation, operation, and Q&A time allocated to each team, as well as equipment specifications, will be announced separately. Judges may require teams to operate their systems using designated test cases and may inspect system logs, documentation, and source code.

| Evaluation Criterion                      | Weight | Key Considerations                                                                                                     |
|-------------------------------------------|--------|------------------------------------------------------------------------------------------------------------------------|
| Task Completion & Stability               | 25%    | Completion rate, correctness, reproducibility, latency, and exception handling for designated and self-selected tasks. |
| Field Impact & User Validation            | 20%    | Needs improvement, user feedback, before-and-after comparison, adoption potential, and long-term operational value.    |
| Agentic Technical Depth & Appropriateness | 20%    | Autonomous planning, tool selection, state management, system integration, and appropriateness of technical choices.   |
| Safety, Controllability & Governance      | 15%    | Permissions, human confirmation, output verification, privacy/security, traceability, and failure recovery.            |
| Innovation & Scalability Value            | 10%    | Innovative perspective, breakthroughs in the field setting, and potential for reuse across settings.                   |
| On-site Demonstration & Q&A               | 10%    | Clarity of explanation, completeness of operation, team mastery, and ability to respond to questions.                  |

A higher degree of autonomy is not necessarily better. For high-risk matters such as administrative approvals, grades, finance, healthcare, legal matters, or personal data, appropriate human review, permission levels, and stop mechanisms shall be regarded as good design.

Finalist teams must provide verifiable outcomes. If a team fails to attend, fails to complete required documentation, or cannot provide any verifiable outcome for reasons attributable to the team, the organizer may cancel its finalist or award eligibility. In cases of force majeure, field restrictions, or third-party service interruption, the team may provide supporting evidence and, upon approval, substitute a recording, offline environment, test records, or another appropriate method.

## 12. Awards and Follow-up Opportunities

The total prize pool is NT\$150,000. It is divided between the Campus Self-Proposed Group and the Designated Field Group, with NT\$75,000 allocated to each category. Prize money is awarded per team.

| Award        | Slots per Category | Prize per Team | Subtotal per Category |
|--------------|--------------------|----------------|-----------------------|
| First Prize  | 1 team             | NT\$25,000     | NT\$25,000            |
| Second Prize | 1 team             | NT\$15,000     | NT\$15,000            |
| Third Prize  | 1 team             | NT\$10,000     | NT\$10,000            |

|                   |         |           |            |
|-------------------|---------|-----------|------------|
| Honorable Mention | 5 teams | NT\$5,000 | NT\$25,000 |
| Total             | 8 teams | —         | NT\$75,000 |

1. Awards may be withheld depending on the quality of entries. By resolution of the judging committee, the number of awards or allocation between categories may be adjusted without exceeding the total prize pool.

2. Prize money is subject to applicable income-tax withholding. Teams shall provide receipts and required information by the deadline specified by the organizer.

3. Depending on sponsorship, the organizer may establish special awards such as corporate, field, safety, interdisciplinary, or other awards. Whether such awards may be combined with general awards shall be specified in the relevant announcement.

4. Finalist and award-winning teams may receive certificates of participation or awards.

### 13. Intellectual Property, Originality, and Third-Party Resources

1. Intellectual property rights in competition entries shall, in principle, belong to the participating team. If team members, their university, faculty advisor, field provider, or a third party have separate contractual arrangements, those arrangements shall prevail. Teams must disclose such arrangements at registration.

2. Teams agree that the organizer may, without compensation, use the work title, abstract, images, presentation materials, demonstration videos, and publicly released content within the necessary scope of competition promotion, outcome exhibition, education, and non-profit dissemination. Source code, data, or confidential content shall not be publicly disclosed without separate consent from the rights holder.

3. If the organizer, field provider, or partner company wishes to further deploy, transfer technology, license, procure, or commercially cooperate on an entry, a separate agreement shall be signed with the rights holder. Participation in the competition does not constitute a free transfer of results or rights.

4. Entries must be original and must not involve plagiarism, misappropriation, impersonation, ghostwriting, or infringement of copyrights, patents, trademarks, trade secrets, personal data, or other rights. When using open-source software, models, datasets, APIs, generative AI, or third-party content, teams must comply with applicable licenses and disclose the source, purpose, and scope of use.

5. A work or derivative work that has previously participated in a competition, won an award, been commercialized, or received funding may still be submitted, but the team must disclose the prior result and specifically describe the new functions, Agentic AI technologies, and field validation added in this competition. Evaluation will focus primarily on the newly added content.

### 14. Data, Personal Information, Cybersecurity, and AI Safety

1. Teams collecting, processing, or using personal information shall comply with the Personal Data Protection Act and applicable regulations, adopting data minimization, de-identification, access control, retention periods, and deletion mechanisms. Personal or sensitive information obtained without lawful authorization may not be used.

2. The system must not, without authorization, send emails or official documents, make payments, delete data, modify grades, approve official documents, control equipment, or perform other actions that may have substantive impact. High-risk operations must incorporate human confirmation, permission levels, and complete records.

3. Teams shall assess prompt injection, unauthorized tool invocation, data leakage, hallucination, bias, malicious inputs, supply-chain risks, and third-party service failures, and propose protection, monitoring, and recovery measures.
4. If data leakage, exposed account credentials or keys, unauthorized access, or another cybersecurity incident is discovered, the team shall immediately stop the relevant operation and report it to the organizer and field contact. The incident must not be concealed or expanded through self-directed testing.
5. For safety, legal, or ethical concerns, the organizer may require a team to stop specific functions, use synthetic data, restrict public demonstrations, or conduct additional testing. Serious violations may result in disqualification.

## **15. Fairness, Conflict of Interest, Violations, and Appeals**

1. Preliminary-round evaluation materials will, in principle, be reviewed anonymously. Presentations, videos, and file names must not contain the university, department, faculty advisor, or other identifying marks. Field collaboration evidence will be separately verified by administrative staff. Team information may be disclosed in the final round.
2. Judges, advisors, and staff shall maintain confidentiality regarding competition materials. Anyone with a direct conflict of interest involving a team, faculty advisor, field provider, or entry must disclose the conflict and recuse themselves from evaluation.
3. In cases of impersonation, ghostwriting, plagiarism, falsification of data, interference with another team, unauthorized access, concealment of conflicts of interest, or other serious violations, the organizer may cancel participation, finalist, or award eligibility and recover prize money, certificates, and related benefits. The individual responsible shall bear any applicable legal liability.
4. Professional scores and rankings issued by judges are, in principle, not subject to appeal. Participants who object to eligibility review, administrative procedures, impersonation, plagiarism, conflicts of interest, or other specific violations must submit supporting evidence within seven days after the announcement of results. The organizer may convene relevant personnel for review, and its decision shall be final.
5. In the event of a tie, scores will be compared in the following order: “Task Completion & Stability,” “Field Impact & User Validation,” and “Safety, Controllability & Governance.” If the scores remain tied, the judging committee shall make the final decision.

## **16. Other Provisions**

1. Teams shall comply with regulations governing the event venue, equipment, network, cybersecurity, fire safety, insurance, and public safety, and shall prepare all necessary equipment and backup plans required for demonstrations.
2. For competition administration, evaluation, and outcome dissemination, the organizer may collect participants’ names, universities, departments, contact information, and work-related information. The required privacy notice will be provided in the registration system.
3. Due to natural disasters, epidemics, venue, transportation, cybersecurity, third-party service interruptions, or other force majeure circumstances, the organizer may modify, postpone, move online, or cancel the event.
4. Matters not covered by these rules may be amended or supplemented by the organizer and announced on the competition website.

5. Competition Website: <https://napaincu.github.io/aaic2026/>. Registration links, field topics, forms, templates, contact information, and the latest announcements shall be subject to the information published on the competition website.

## Appendix 1. Recommended Structure for the Preliminary Proposal Presentation

| Page | Recommended Content                                                                   |
|------|---------------------------------------------------------------------------------------|
| 1    | Anonymous cover: work title, category, track, and technology tags.                    |
| 2    | Problem, target users, and current workflow.                                          |
| 3    | Needs interviews, field evidence, and quantified pain points.                         |
| 4    | Why Agentic AI is needed; comparison with conventional chat, RAG, or fixed workflows. |
| 5    | Task flow and Agent state diagram.                                                    |
| 6    | System architecture, models, tools, APIs, and data flow.                              |
| 7    | Permissions, human-AI collaboration, safety, and failure handling.                    |
| 8    | Prototype screens or operation flow.                                                  |
| 9    | Test cases, baseline approach, and evaluation metrics.                                |
| 10   | Deployment, cost, maintenance, and field adoption plan.                               |
| 11   | Innovation, scalability, and future development.                                      |
| 12   | Team roles, differences from prior work, third-party resources, and risk disclosure.  |

## Appendix 2. Minimum Disclosure Items for Final-Round Agent Evaluation

- Definition of task success, number of test cases, and test environment.
- Comparison with human/manual processes, fixed workflows, a single model, or other reasonable baselines.
- Success rate, accuracy, average and maximum latency, and model/API cost.
- Tool-call success rate, number of retries, human-intervention rate, and termination rate.
- Error categories, known limitations, worst-case scenarios, and recovery methods.
- At least one auditable operation trace, event record, or execution screen.
- Data sources, models and versions, and version-management method for major prompts / strategies.
- Test results for personal data, cybersecurity, permissions, prompt injection, and inappropriate outputs.

**English Version Note:** This English version is translated from the Chinese competition rules provided for this competition. In the event of any discrepancy between the Chinese and English versions, the Chinese version shall prevail unless otherwise announced by the organizer.