

# Final Project Info

MLSP 2024

2024.03.12

# Outline

- Projects
  1. AI驅動出行未來: 跨相機多目標車輛追蹤競賽
  2. 以生成式AI建構無人機於自然環境之地形導航競賽
- How to register
- Timeline

# Project 1

# AI驅動出行未來：跨相機多目標車輛追蹤競賽

- Goal
  - Utilizing cross-camera footage of vehicles driving on the road to develop an AI model for cross-camera multi-object tracking.
- Keywords
  - Object detection & tracking
- Evaluation
  - IDF1 + MOTA

# Project 2

# 以生成式AI建構無人機於自然環境之地形導航競賽

- Goal
  - Constructing a dataset for autonomous drone navigation with a focus on Taiwanese roads and rivers.
- Keywords
  - Generative model
- Evaluation
  - FID & F-measure
- **This competition will be able to register from 03/13**

# More detail about projects...

- Links

- Project 1: AI驅動出行未來: 跨相機多目標車輛追蹤競賽

- [https://docs.google.com/presentation/d/1ZuFYQXBHpkgynuwGbJgqD\\_mFWgsM78GJ/edit?usp=drive\\_link&oid=116506871703815682180&rtpof=true&sd=true](https://docs.google.com/presentation/d/1ZuFYQXBHpkgynuwGbJgqD_mFWgsM78GJ/edit?usp=drive_link&oid=116506871703815682180&rtpof=true&sd=true)

- Project 2: 以生成式AI建構無人機於自然環境之地形導航競賽

- [https://docs.google.com/presentation/d/1VbrOqcWzXO-gTzeqxX1f57BolarAGmEb/edit?usp=drive\\_link&oid=116506871703815682180&rtpof=true&sd=true](https://docs.google.com/presentation/d/1VbrOqcWzXO-gTzeqxX1f57BolarAGmEb/edit?usp=drive_link&oid=116506871703815682180&rtpof=true&sd=true)

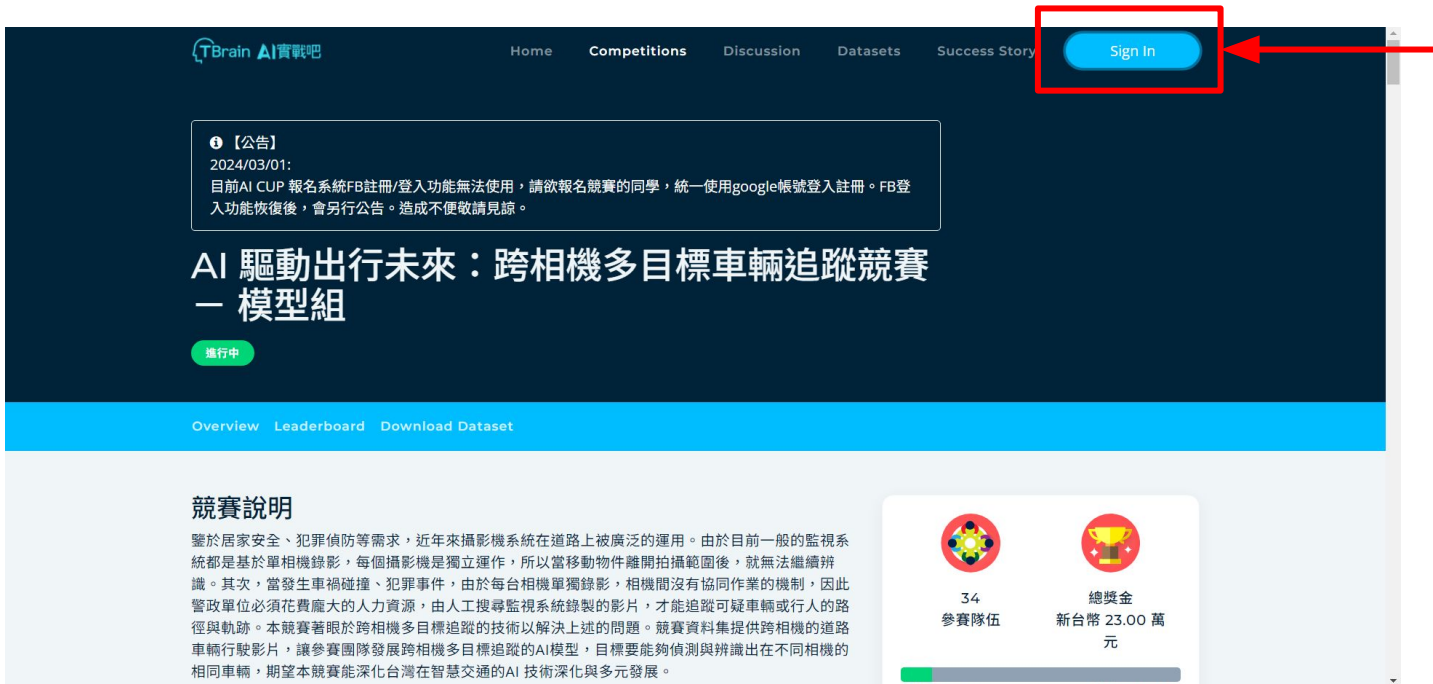
- Use Google Translate, DeepL or ChatGPT to translate from chinese to your familiar language
- Choose only 1 competition you are interested to join

How to register



# Sign up a account in T-Brain

- Link: <https://tbrain.trendmicro.com.tw/Competitions/Details/33>



The screenshot shows the T-Brain AI Competition page. The top navigation bar includes links for Home, Competitions, Discussion, Datasets, and Success Story. A red box highlights the 'Sign In' button in the top right corner, with a red arrow pointing to it from the text 'Press the Sign In'. Below the navigation bar, there is a notice section with the title '【公告】' and the date '2024/03/01:'. The notice states that the current AI CUP registration system's FB login/register function is unavailable, and participants should use Google accounts for login and registration. Below the notice, the main title of the competition is 'AI 驅動出行未來：跨相機多目標車輛追蹤競賽 - 模型組'. A green button labeled '進行中' (In Progress) is located below the title. At the bottom of the page, there is a section titled '競賽說明' (Competition Description) which provides details about the competition's purpose, rules, and prizes. The prizes listed are 34 participating teams and a total prize fund of 23.00 million New Taiwan Dollars.

公告

2024/03/01:

目前AI CUP 報名系統FB註冊/登入功能無法使用，請欲報名競賽的同學，統一使用google帳號登入註冊。FB登入功能恢復後，會另行公告。造成不便敬請見諒。

AI 驅動出行未來：跨相機多目標車輛追蹤競賽  
— 模型組

進行中

Overview Leaderboard Download Dataset

競賽說明

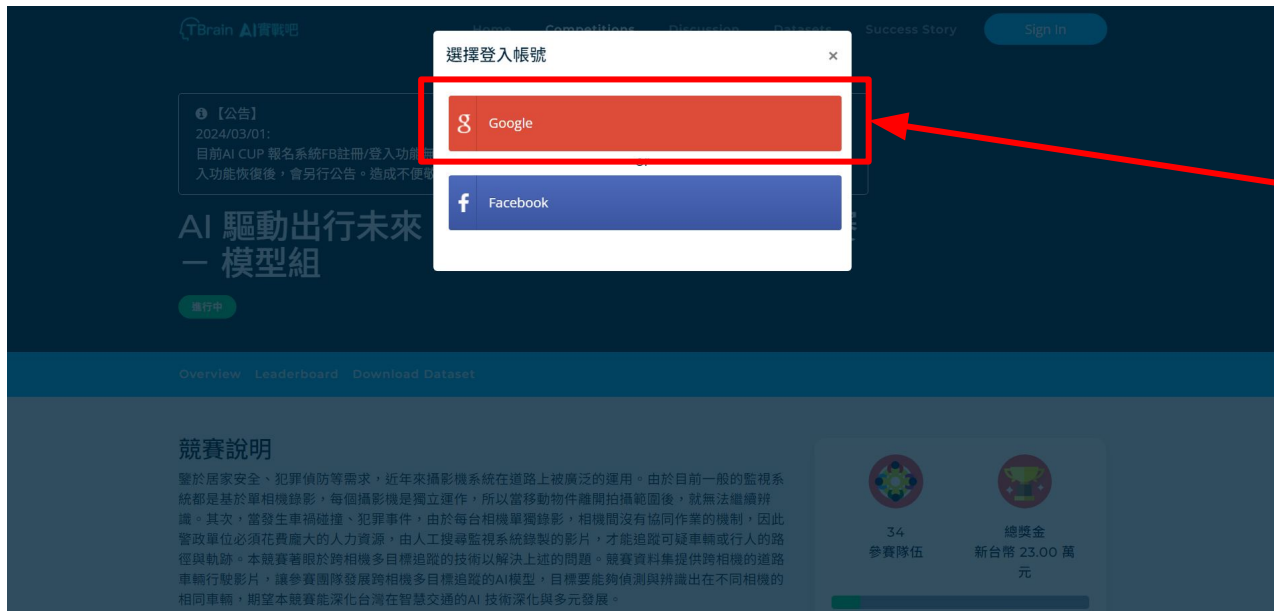
鑒於居家安全、犯罪偵防等需求，近年來攝影機系統在道路上被廣泛的運用。由於目前一般的監視系統都是基於單相機錄影，每個攝影機是獨立運作，所以當移動物件離開拍攝範圍後，就無法繼續辨識。其次，當發生車禍碰撞、犯罪事件，由於每台相機單獨錄影，相機間沒有協同作業的機制，因此警政單位必須花費龐大的人力資源，由人工搜尋監視系統錄製的影片，才能追蹤可疑車輛或行人的路徑與軌跡。本競賽著眼於跨相機多目標追蹤的技術以解決上述的問題。競賽資料集提供跨相機的道路車輛行駛影片，讓參賽團隊發展跨相機多目標追蹤的AI模型，目標要能夠偵測與辨識出在不同相機的相同車輛，期望本競賽能深化台灣在智慧交通的AI 技術深化與多元發展。

34  
參賽隊伍

總獎金  
新台幣 23.00 萬元

Press the  
Sign In

# Sign up a account in T-Brain



Press the  
**Google**  
and then  
**Write your  
Profile**

# Register the competition in AI Cup

- Link: <https://go.aicup.tw/>

- The screenshot shows the homepage of the AI CUP Registration System. At the top left, it says 'AI CUP 報名系統' and '報名競賽 Register for the Competition'. At the top right, there is a '登入 (Login)' link. The main content area has a light blue background with a geometric pattern of dots and lines. In the center, it says 'AI CUP Registration System'. Below this, there is a red box containing the text '請先登入 Log In'. A red arrow points from the text 'Press the Log In' to the 'Log In' link in the red box. At the bottom left, there is a note in Chinese and English about the registration system process, with a link to the official website: <https://www.aicup.tw/>.


# Register the competition in AI Cup



# Register the competition in AI Cup

AI CUP 報名系統 報名競賽 Register for the Competition agarya89.11@nycu.edu.tw

個人資料  
Profile



agarya89.11@nycu.edu.tw

儲存個人資料 Save

登出 Log out

提醒您：

您所填寫之資料，將作為未來聯絡、製作獎狀等之資料依據，請謹慎填寫。如因填寫錯誤造成權益受損，主辦單位概不負責。

Please note that the information you

Remember to complete your profile

中文姓名 Chinese Name	中文名字
英文姓名 English Name	英文名字
註冊用 Email Register Email	agarya89.11@nycu.edu.tw
聯絡用 Email Contact Email	agarya89.11@nycu.edu.tw
電話 Phone Number	聯絡電話
戶籍地址 Address	聯絡地址
身分 Are you a Student?	<input checked="" type="radio"/> 我是在學學生 Yes <input type="radio"/> 我是社會人士 No

# Register the competition in AI Cup



AI CUP 報名系統 報名競賽 Register for the Competition agarya89.11@nycu.edu.tw

**Press the  
Register for the Competition**

AI CUP Registration System  
Welcome,

報名系統流程說明可至 AI CUP 官網查看 (相關網站 → AI CUP報名系統流程)  
The process of the registration system can be viewed on the official website of AI CUP (related website → AI CUP registration system process).  
<https://www.aicup.tw/>

# Register the competition in AI Cup

writing/submission omissions will not be accepted.

AI 驅動出行未來：跨相機多目標車輛追蹤競賽 - 模型組  
[ TBrain ]

報名期間：2024年3月1日 16:00 ~ 2024年5月22日 23:59  
競賽平台 - T-Brain

AI 驅動出行未來：跨相機多目標車輛追蹤競賽 - 參數組  
[ TBrain ]

報名期間：2024年3月1日 16:00 ~ 2024年5月22日 23:59  
競賽平台 - T-Brain

以生成式AI建構無人機於自然環境偵察時所需之導航資訊  
競賽 I - 影像資料生成競賽 [ TBrain ]

Press the block

**Wait !**



# Form the team first before next step !

- Important !!! Pay attention to this page !
  - A team can be formed by 1 to 3 students.
  - Please ensure your teammates before the next step.
  - Provide your team in the [Google Sheet](#)

Let's go on

# Register the competition in AI Cup

## AI 驅動出行未來：跨相機多 目標車輛追蹤競賽 - 模型 組 [ TBrain ]

報名期間：2024年3月1日 ~ 2024年5月22日

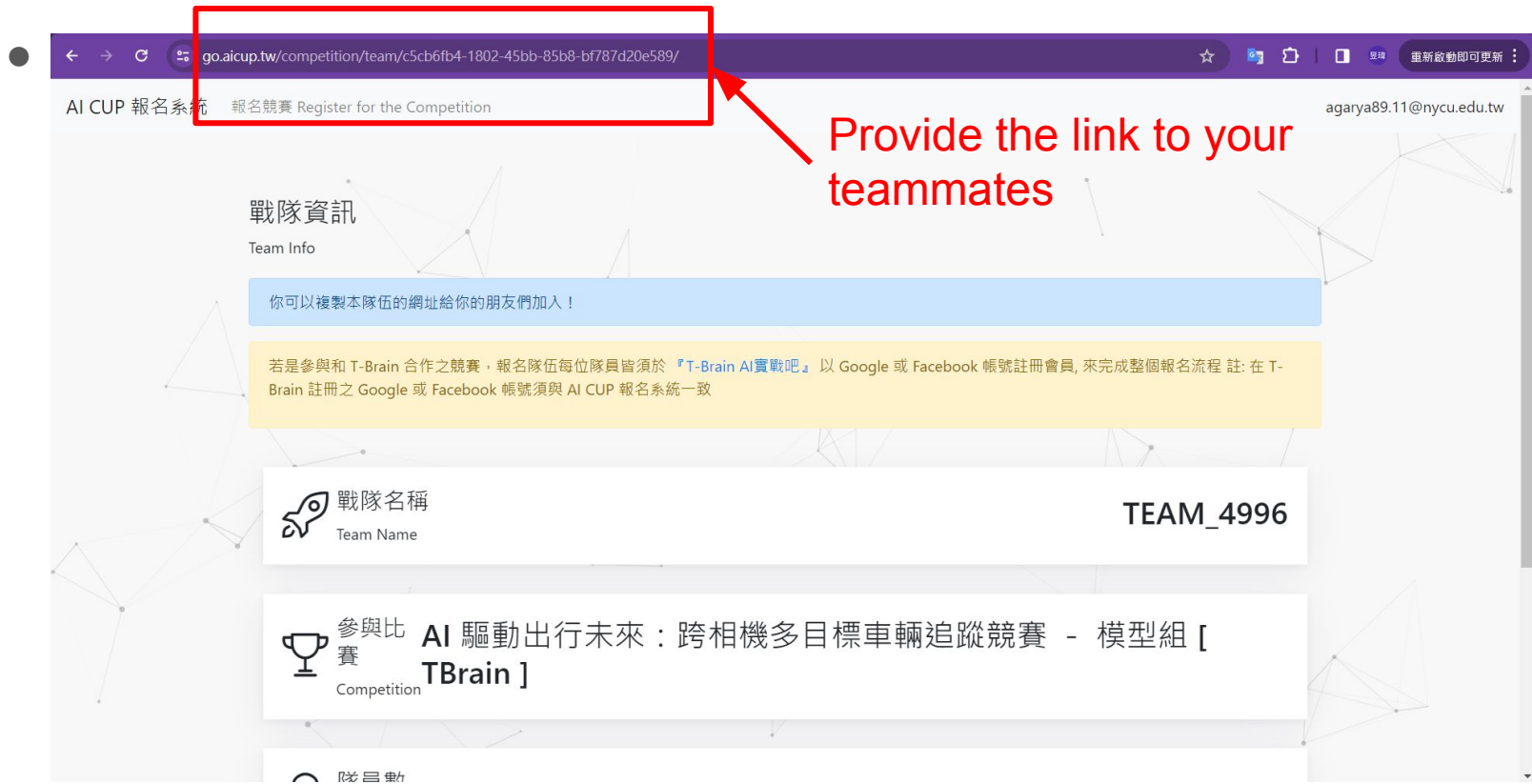
隊伍成員上限：5

此為AICUP與TBrain合作之競賽，在AICUP報名系統報名後請去TBrain完成比賽。最終報名截止時間為2024/05/22 23:59。比賽辦法網址：  
<https://tbrain.trendmicro.com.tw/Competitions/Details/33> 註：此比賽隊伍人數為1~5人(包含隊長)，若超過人數則無法與TBrain連動，無法與TBrain連動的參賽者將視為報名失敗，若報名截止後隊伍超過報名人數上限，則無法做更動，報名失敗者則無參賽資格。

立即組隊 Form a team!

If you are the leader of the team, press the **Form a team!**  
If you are NOT the team leader, please **DO NOT** press this button

# Register the competition in AI Cup



The screenshot shows a web browser window with the URL <https://go.aicup.tw/competition/team/c5cb6fb4-1802-45bb-85b8-bf787d20e589/> highlighted in a red box. A red arrow points from the text "Provide the link to your teammates" to this URL. The page title is "AI CUP 報名系統" and the subtitle is "報名競賽 Register for the Competition". The user's email address, "agarya89.11@nycu.edu.tw", is visible in the top right corner. The main content area is titled "戰隊資訊" (Team Info) and includes a blue box with the text "你可以複製本隊伍的網址給你的朋友們加入！" (You can copy this team's URL to share with your friends!). Below this is a yellow box with registration instructions: "若是參與和 T-Brain 合作之競賽，報名隊伍每位隊員皆須於『T-Brain AI實戰吧』以 Google 或 Facebook 帳號註冊會員，來完成整個報名流程 註：在 T-Brain 註冊之 Google 或 Facebook 帳號須與 AI CUP 報名系統一致" (If participating in a competition in cooperation with T-Brain, each team member must register as a member on 'T-Brain AI Real Battle' using a Google or Facebook account to complete the registration process. Note: The Google or Facebook account registered on T-Brain must be consistent with the AI CUP registration system). The registration form shows the team name "TEAM\_4996" and the competition "AI 驅動出行未來：跨相機多目標車輛追蹤競賽 - 模型組 [TBrain]" (AI Driving the Future: Cross-camera multi-object vehicle tracking competition - Model Group [TBrain]).

AI CUP 報名系統 報名競賽 Register for the Competition

agarya89.11@nycu.edu.tw

戰隊資訊  
Team Info

你可以複製本隊伍的網址給你的朋友們加入！

若是參與和 T-Brain 合作之競賽，報名隊伍每位隊員皆須於『T-Brain AI實戰吧』以 Google 或 Facebook 帳號註冊會員，來完成整個報名流程 註：在 T-Brain 註冊之 Google 或 Facebook 帳號須與 AI CUP 報名系統一致

戰隊名稱  
Team Name

TEAM\_4996

參與比賽  
Competition

AI 驅動出行未來：跨相機多目標車輛追蹤競賽 - 模型組 [TBrain]

# Timeline

# Important dates

Date	Content
03/11 ~ 03/20	Form the team & Register the competition
03/15 ~	You can start to train your own model
04/08	Submit the project proposal document to E3 system
Late May to early June	Final project presentation

# Finally...

- If you have any questions, contact to TAs with E3 system or gmail, or you can come to EC218 to seek for help.
  - Because the registration websites are full of chinese and can not change language...

