**The Institution of Engineering and Technology**

**Competition Details: IET AI Challenge 2024**

| The Competition. | Win a cash prize of: |
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| | 1st place – GBP 500 |
| | 2nd place – GBP 300 |
| | 3rd place – GBP 200 |
| | from the IET AI Technical Network. |
| | Our Competition and Awards Standard Terms found at https://www.theiet.org/media/y03n4m2h/iet-competitions-and-awards-standard-terms.pdf apply to this competition. |
| | We refer to these in this competition entry form as the Standard Competition Terms. Please ensure that you read and understand the Standard Competition Terms before submitting a competition entry. If you have any questions, please contact us using the information provided below. |
| | Topic: The IET AI Challenge is a point-based challenge hackathon where participants train and submit their AI models to compete in tasks. |
| | Those looking to take part should be students and young professionals who are between the ages of 18 and 35, with any level of AI experience. A workshop will be carried out at the start of the hackathon for participants who are new to machine learning. During the challenge, participants will be given data sets to be trained on. The models will then be scored with a separate scoring dataset. |
| | This competition consists of two stages: |
| | All entrants will compete in Stage 1: Model Training and Evaluation: |
| | 1. Submission: Each team must submit their trained models by the specified deadline. |
| | 2. Data Usage: Participants will be provided with a training dataset. The test dataset will remain undisclosed until evaluation. |
| | 3. Scoring: Models will be evaluated based on performance metrics specific to each task (e.g., accuracy for image classification, precision and recall for object detection, etc.). |
| | Tasks: |
| | Participants can choose from a variety of ML models and approach to solve the task at hand. |
| | Each task released will carry a specific point weightage. The participants need not complete all the tasks. The top 10 winners will be selected based on their total scores at the end of the submission deadline. |

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| | The top 10 teams with the highest scores from Stage 1 will advance to Stage 2. |
| | Stage 2: Presentation and Q&A where you will |
| | Present your findings to a panel covering |
| | Clarity and Structure |
| | Technical Understanding |
| | Innovation and Creativity |
| | Three winners will be chosen for the 3 cash prizes |
| | You should register your team/individual entry for the challenge using the following link https://events.theiet.org/events/ietaichallenge by 18th Oct 2024, 11:59PM with the maximum team size being 4 members. Individual entries can form teams during the event. For team entries, Each team member must meet the general eligibility requirements. |
| **Who are we?** | **THE INSTITUTION OF ENGINEERING AND TECHNOLOGY**, a charity registered in England and Wales and in Scotland with charity numbers 211014 and SC038698 respectively, whose registered address is at Savoy Place, London, WC2R 0BL, UK |
| **How can you contact us?** | Main Organiser: Dr Ivan Ling ivan.ling@ietvolunteer.org |
| **Who can enter?** | **General Eligibility:**<br><br>• Open to all students and young professionals who are between the ages of 18 and 35, with AI experience.<br><br>**Team Composition:**<br><br>• Maximum team size is 4 members.<br><br>• Participants can choose to participate as individuals or form teams.<br><br>• Individuals who come alone can form teams with others during the hackathon.<br><br>**Specific Eligibility Criteria:**<br><br>1. **Age Requirement:**<br>   o Participants must be at least 18 years old and below 35 years old at the time of registration.<br><br>2. **Team Entries:**<br>   o Teams can consist of members from different universities/organizations.<br>   o Each team member must meet the general eligibility requirements.<br><br>3. **Additional Criteria:** |

| | We will not accept entries where any entrant is: |
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| | (A) our employee or an employee of any company (including any holding or subsidiary company) or charitable institution within the IET's group; |
| | (B) an employee of any agent or supplier who is professionally connected with the competition (including its administration) or any sponsor of the competition; |
| | (C) a member of the immediate family (meaning a child, parent or guardian) or living in the same household as any individuals who fall under the categories set out (A) or (B) above; or |
| | (D) an individual listed on any financial sanction list or living in a country which is subject to financial sanctions imposed by the United Nations, the United Kingdom, the United States, the European Union or any other jurisdiction. |
| **How to enter.** | **Registration Details:**<br><br>• **Registration Link:** Participants must register online at https://events.theiet.org/events/ietaichallenge.<br><br>• **Registration Deadline:** All participants must complete their registration by 18th Oct 2024, 11:59PM.<br><br>**Entry Form Completion:**<br><br>• Participants must fill out the online entry form available on the registration site.<br><br>• All required fields on the entry form must be completed accurately. |
| **Competition opening and closing date.** | Registration Opens: 27th September 2024, 9:00AM<br><br>Registration Closes: 18th October 2024, 11:59PM<br><br>Competition date: 26th – 27th October 2024 |
| **Judging process and criteria** | **Stage 1: Model Training and Evaluation**<br><br>**General Rules:**<br><br>1. **Submission**: Each team must submit their trained models by the specified deadline.<br><br>2. **Data Usage**: Participants will be provided with a training dataset. The test dataset will remain undisclosed until evaluation.<br><br>3. **Scoring**: Models will be evaluated based on performance metrics specific to each task (e.g., accuracy for image classification, precision and recall for object detection, etc.).<br><br>**Tasks:** |

| | Participants can choose from a variety of ML models and approach to solve the task at hand. |
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| | Each task released will carry a specific point weightage. The participants need not complete all the tasks. The top 10 winners will be selected based on their total scores at the end of the submission deadline. |
| | **Advancement to Stage 2:** |
| | • The top 10 teams with the highest scores from Stage 1 will advance to Stage 2. |
| | **Stage 2: Presentation and Q&A** |
| | **Presentation Criteria:** |
| | 1. **Clarity and Structure** (30 points): |
| |  o Logical flow and structure of the presentation. |
| |  o Clear explanation of the problem statement and solution. |
| |  o Effective use of visual aids. |
| | 2. **Technical Understanding** (30 points): |
| |  o Depth of understanding of the AI models and algorithms used. |
| |  o Justification of the chosen approach and techniques. |
| |  o Demonstration of model performance and validation results. |
| | 3. **Innovation and Creativity** (20 points): |
| |  o Novelty and originality of the solution. |
| |  o Creative problem-solving approaches and techniques. |
| | 4. **Q&A Session** (20 points): |
| |  o Ability to answer technical questions from the judges. |
| |  o Demonstration of deep understanding and mastery of the subject matter. |
| |  o Professionalism and clarity in responses. |
| | **Total Possible Points for Stage 2**: 100 points |
| **The judging panel.** | The judging panel shall consist of 3 individuals for stage 2. |
| |  - An academic from University of Southampton |
| |  - An industry expert |
| |  - An IET Volunteer |

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| **Details of any third parties involved in the competition.** | - School of Electronics and Computer Science, University of Southampton<br>- AI-Society, University of Southampton<br>- IET Solent Network |
| **The prize(s).** | Cash prize or equivalent for the team:<br>1$^{st}$ place – GBP 500<br>2$^{nd}$ place – GBP 300<br>3$^{rd}$ place – GBP 200 |
| **Winners' announcement.** | The winners will be announced during the closing ceremony. |
| **Details of any presentation event.** | The closing ceremony will be held at B60, University of Southampton, SO17 1BJ.<br><br>The closing ceremony will be attended by representatives from all parties involved if possible. The most senior representatives as deemed by the organizer will be invited on stage for the prize presentation accompanied by the organizing chair. |
| **Ownership of Competition entries.** | The IET will not own the rights (including copyright) in competition entries submitted. However, the IET shall be permitted to use all competition entries in accordance with the licence terms as set out in clause 10.3 of the Standard Competition Terms. |
| **Data Privacy Statement** | Personal Data will be processed by the IET in accordance with our Privacy Statement which can be found on our website at https://www.theiet.org/help/privacy<br><br>This statement informs you about how we process your data, your rights under UK GDPR and how to exercise them as well as who to contact with any queries relating to the processing of your Personal Data. |