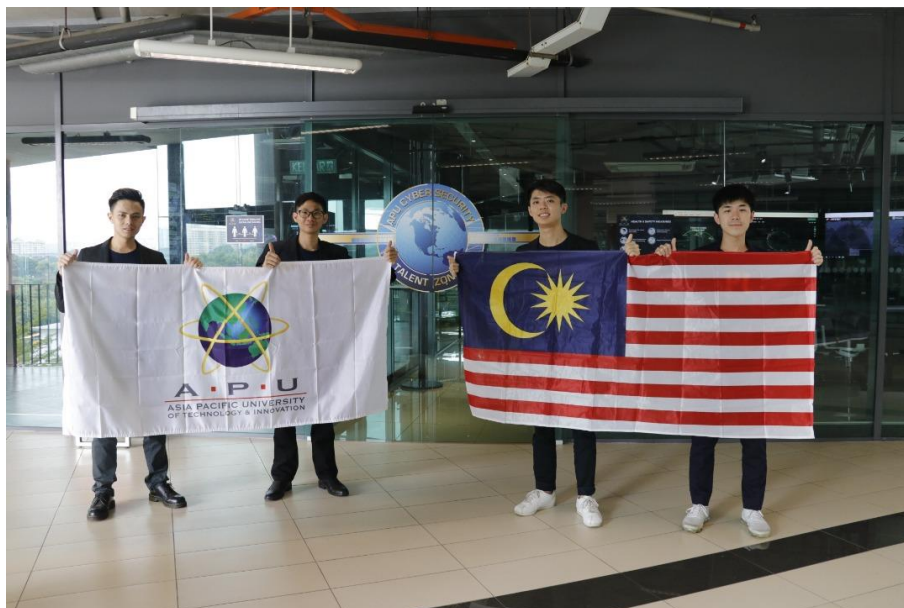


Asia Pacific University wins the Atos IT Challenge 2020 with innovative app

'PestKillerBot' uses drones to manage pest control in floricultural fields

Paris, July 9, 2020 – Atos, a global leader in digital transformation, today announces the winners of its international student competition, [the Atos IT Challenge](#). The winners were presented with their awards yesterday during the Ceremony which took place during the digital Atos Technology Days. Now in its ninth year, the competition saw teams from 27 countries around the world compete on the theme of ['Cooperative Artificial Intelligence'](#).



After an initial first round in which 16 teams were selected, the Atos IT Challenge Jury, made up of experts and Atos executives, chose three finalists. These are:

- **1st prize and competition winner: Asia Pacific University, Malaysia**

“PestKillerBot” is an innovative and easy-to-use application which eliminates the pest in floricultural fields using drones which perform pest control and data collection. The Drone simulator autonomously flies over a field to detect diseases or harmful bugs and kills them. The solution architecture is divided into four parts: the Area Allocation, Path Finding with Path Planning, Pest Detection, and Drone Activation Simulation allowing users to see how the divided field is covered by each drone. The students have developed a drone prototype with a 3D printer and several components.

The team won €10,000 and each student was offered the opportunity to do either an internship at Atos or to work together with the company to develop their project.

- **2nd prize: Instituto Tecnológico de Estudios Superiores Monterrey, Mexico**

This innovative solution called “Digital Water” aims to deliver water consumption solutions to households and the water supply company. It is a web application that predicts water consumption and the water level across 3 dams. The aim of the project is to provide details so that users can track consumption levels, waste, and issues to improve water resource management. The team has five years’ worth of data. They have trained their models for four years and have tested it for one year.

The team won €5,000 and each student was offered the opportunity to do either an internship at Atos or to work together with the company to develop their project.

- **3rd prize: Josip Juraj Strossmayer University of Osijek, Croatia**

With an innovative solution to improve traffic, the “CTC - Cooperative Traffic Control” app simulates traffic light controls using Deep Reinforcement Learning. Each junction acts as an agent that takes an action (extends or reduces the green/red time) depending on the cars and waiting time in the lane. The application also gets information from the nearest junctions. The team has trained and tuned the model to get the best model configuration for the traffic light control.

The team won €3,000 and each student was offered the opportunity to do either an internship at Atos or to work together with the company to develop their project.

This year, the jury also awarded a **special prize** to an entry that particularly stood out, for both the significance of the topic tackled and the dedication of the team.

- **Special Jury prize: Loughborough University, United Kingdom**

“Initial Survey Swarm” is a solution for a maze simulator where drone agents collect knowledge about a maze over a set period. The drones can share the information they find to search destroyed buildings by generating a 3D map or representation of it after an earthquake or where there is a lack of internet coverage.

At the end of the ceremony, **Sophie Proust, Group Chief Technical Officer, Atos** said: *“AI technology is revolutionizing all sectors of the economy and society, and today the brilliant students in the Atos IT Challenge demonstrated real entrepreneurial skills by offering innovative and concrete solutions that meet the new needs of cooperative AI expressed by businesses and individuals. I am impressed by the outstanding creativity and the quality of the contributions of the award-winning finalists. Congratulations to our winners and to all of our contestants!”*

The Atos IT Challenge 2021 was also announced. Next year, students will have the opportunity to develop innovative concepts around **the theme of “How digital can help decarbonize non-digital”**.

Since its creation in 2012, [the Atos IT Challenge](#) has empowered students from around the world to develop applications connected to major trends in the digital revolution, such as smart mobility, connected cars, interactive media, connected life, the “right to be forgotten”, blockchain and artificial intelligence. Students are mentored by members of Atos Scientific Community who provide technical and practical support, advice and encouragement.

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About Atos

Atos is a global leader in digital transformation with over 110,000 employees in 73 countries and annual revenue of over € 11 billion. European number one in Cloud, Cybersecurity and High-Performance Computing, the Group provides end-to-end Orchestrated Hybrid Cloud, Big Data, Business Applications and Digital Workplace solutions. The group is the Worldwide Information Technology Partner for the Olympic & Paralympic Games and operates under the brands Atos, Atos Syntel, and Unify. Atos is a SE (Societas Europaea), listed on the CAC40 Paris stock index.

The purpose of Atos is to help design the future of the information technology space. Its expertise and services support the development of knowledge, education as well as multicultural and pluralistic approaches to research that contribute to scientific and technological excellence. Across the world, the group enables its customers, employees and collaborators, and members of societies at large to live, work and develop sustainably and confidently in the information technology space.

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