Youth take up the reins in tackling national challenges

YouthxHack, a four-day hackathon organised by Cyber Youth Singapore (CYS), highlighted the ingenuity and potential of Singapore's young minds.

This year's hackathon, held in conjunction with 40 years of Total Defence (TD40), marks the third edition of the series and has seen an unprecedented surge in interest, with participation numbers more than doubling compared to last year.

YouthxHack is an annual youth-run initiative organised and designed by CYS.

Held at Temasek Polytechnic, 164 participants were tasked with addressing critical areas of Singapore's defence, spanning social, economic and digital domains.

They formed 36 teams to develop innovative solutions to real-world problems, demonstrating their technical acumen and commitment to the nation's future.

One of the standout solutions was an API-based encrypted token system designed to prevent scams and secure online transactions.

"Their submission was a thoughtful response to an issue that has long challenged e-mail security and showed a fresh perspective on a well-known problem," Mr Wong Pei Yuen, vice-president of group cyber resilience at Singtel, told TNP.

Another was a scalable platform that efficiently matches surplus food with NGOs to reduce food wastage.

Additionally, a cutting-edge application combining computer vision and natural language processing was developed to aid the visually impaired.

Mr Ng Nam Guan, senior director of cloud-native architecture at Dell, told TNP that this hackathon is close to heart, especially the social defence pillar.

"Empathy is really important and we want to encourage students to use technology to drive solutions for our vulnerable groups, the most overlooked groups in society," he said.

Each winning team received $500 in Grab vouchers as well as Airpod 3rd Gen earphones (digital theme), Alienware headsets (social theme), and Nintendo Switch Lite consoles (economic theme).

The winners of the digital defence theme expressed their surprise at their victory.

"I think it was quite unexpected for all of us because it was the first time most of us had ever taken part in a hackathon and we didn't go into it with any expectations," team member Nichole Bun, 20, told TNP.

"We just wanted to come up with a solution that we felt would work for the problem statement and that we were ultimately proud of."

The team, which comprised of students studying Computing and Law at Singapore Management University, agreed they were happy with how well they worked as a team and are looking forward to joining more hackathons.

"Even though we are all taking the same degree, which is computing and law, we actually all have different areas of interests and areas that we are good at," Miss Bun said.

"We complement each other's strengths and weaknesses quite well."

This year's hackathon also featured a more diverse group of participants, including students from polytechnics, private and public universities, and even the Institute of Technical Education (ITE).

"Students from different backgrounds can offer different views to the hackathon," said Ms Angela Ng, Head of CYS's Cyber Youth Collective.

About one in four of those who attended the hackathon's closing ceremony were female, indicating a shift in the industry.

"If more girls join tech, there will be more ideas because there are different perspectives between the different genders," said 18-year-old participant Lee Sing Jia from Ngee Ann Polytechnic.