From the Stabroek news, October 11,2023

STEM all-girls robotics team shines at competition in Singapore

Despite the challenges faced during their competitions, Team Guyana Robotics – an all-girls robotics team- emerged among the top 23 teams out of 191 at the First Global Challenge in Singapore which concluded on Tuesday, STEM Guyana Director Karem Abrams told Stabroek News.

FIRST (For Inspiration and Recognition of Science and Technology) Global Challenge is an annual Olympic-style robotics competition organized by the International First Committee Association. It promotes STEM education and careers for youth.

The five innovative young women were placed in permanent alliances and secured 5th position out of the 8 alliances who qualified for the semi-finals.

They created a unique robot designed to respond to renewable energy-related issues which was dubbed outstanding as compared to the other teams.

Abrams, who is the non-profit tech organization's pioneer, said that she is extremely proud of the participants in light of the hurdles they faced such as eating irregularly, adapting to the new environment, and having had to travel for nearly four days.

The fact that the team won five out of six games was tremendous, the STEM director said.

An elated Abrams told this newspaper that though the Guyanese team encountered stiff competition on day one and secured 50th position, they bounced back on day two and secured 18th position out of approximately 191 participating teams.

"The fact that they encountered so many challenges but were able to do so well is a testament to their abilities to surmount any circumstance and for that I am proud of them", she said.

The all-female team which is a subset of Team Guyana Robotics, was up against 191 countries as they all vied for the challenge themed" Hydrogen Horizons," which focused on teaching students about renewable energy and nurturing their problem-solving skills.

Team coach, Arianna Mahase, explained that the teams, understanding hydrogen energy, were challenged to develop a robot which exhibited innovative ways of tackling world challenges including green energy storage and extracting hydrogen from water.

She said that based on research, she and team members discovered that electrolysis (the process of using electricity to split water into hydrogen and Oxygen) served as one of the ideal solutions to the experiment.

"Whitin the game, the robot must be able to separate the atoms of water to get hydrogen and oxygen, so all the balls green and blue are put together on the field and you must be able to separate those and take only the green and blue and place them in separate containers."

"The second step is transporting the hydrogen and oxygen, then extracting it in such a way whereas energy can be generated into a renewable form," the coach added.

According to Abrams and Mahase, the robot developed by the team must possess these abilities in order to carry out the process effectively.

Mahase noted that the competition aims at developing creativity, cohesiveness and innovation the young competitors who are primarily students.

She reported that Guyana has already formed alliances with other students from different countries to encourage global cooperation and collaborative innovation as the competition continues.

Guyana's team consisted of 5 participants: 1) Ariel Taylor, 2) Italy Ton-Chung, 3) Lateisha McArthur, and sisters, 4) Xaria Holder and 5) T'Sehai Holder.

It was coached by five-year veteran, Mahase along with Joshua Reece. The extended team included Keeland Cummings, Zionara Lawrence, Naliah Fordyce, and Lucas Simpson. Team mentors were Sahief Posse, Tarico Henry, and Daniel Eastman.

Abrams added that this is the first time that Guyana was represented by an all-girls team at a robotics challenge and is optimistic that the young women would excel in the upcoming challenges ahead.

She also thanked the many donors who contributed financially towards the well-being of the girls while in Singapore.