A team from the Veer Surendra Sai University of Technology (VSSUT), Burla has won laurels after bagging the Second Runner Up position with a prize money of 3 lakhs INR in the third edition of the prestigious pan-India innovation contest "Dare to Dream 3.0" organized by Defence Research and Development Organization(DRDO).

The year-long contest was launched last year in October for promoting research in various fields of emerging technologies in order to promote both individuals and startups for the creation of innovation in the defence and aerospace technologies in the country for realizing the vision of an 'Aatmanirbhar Bharat' given by our Honorable Prime Minister Shri Narendra Modi. It was held virtually with two rigorous rounds of screening by an expert committee from DRDO and the results were announced on 13th of October 2022. The felicitation of the winners was organized on 20th October 2022 at the DefExpo2022 in Gandhinagar, Gujrat in the gracious presence of the Honorable Defence Minister of India, Shri Rajnath Singh and Chairman, DRDO, Dr. Samir V. Kamat.

The team comprised of six members from the final year, Siddharth Mohanty, Sudhansu Panigrahi, Ahwan Pradhan, Anshuman Mahapatra, Rajdeepak Mahanto and Binay Kumar Mohanta. The team worked under the able guidance of Dr. Gyan Ranjan Biswal, Associate Professor and Head of Department, Electrical and Electronics Engineering and Er. Soumya Debashis Das, Visiting Faculty and PhD Scholar, Department of Electrical and Electronics Engineering, VSSUT, Burla.

The advent of bio-warfare and advancements in nuclear and radiological weapons has completely changed the dynamics of the modern warfare. At the same time, it has necessitated the research and development of a robust system to detect and effectively mitigate these threats.

This has motivated the team of young innovators to develop the project "MCDS- Mobile CBRNe Detection System" which is a semi-autonomous, modular and self-powered Unmanned Ground Vehicle (UGV) with an Integrated Sensor Module for remote detection of Chemical, Biological, Radiological and Nuclear explosives in war zones.

Its modular and compact design makes it highly suitable for war zones with difficult terrains. The low-cost onboard integrated sensor module gives a fast and real-time response to detect various kinds of explosives from a safe distance. For self-powered operation, the design also implements a dynamic charging system which increases the time of operation of the UGV. Apart from the war zones, it can be easily deployed in areas of national importance like the Parliament and tourist places and areas like dockyards, airports, railways where security is of the utmost priority.

Currently, the project is in simulation phase and team aims to collaborate with DRDO for the development of the prototype in the near future.