

IIT-H faculty developing robo for Covid ward deployment

Faculty of Mechanical Engineering department has been working on a moveable mini-robo which can be used to supply food and medicines to COVID-19 patients in wards, says Director B S Murthy



IIT-H Director Prof. B S Murthy

Sangareddy: Director of the Indian Institute of Technology-Hyderabad (IIT-H) Prof BS Murthy has said that a quite a number of faculty at the institute are working round the clock to help the government combat coronavirus pandemic by developing various technologies, medical devices, medicine and vaccine.

Outlining the research activity that is being carried out on the campus at Kandi in Sangareddy district while delivering a speech on Indian Science TV Channel on the theme of “Combating Coronavirus Through Technology” on Monday, the Director said the faculty of Mechanical Engineering department has been working on a moveable mini-robo which can be used to supply food and medicines to COVID-19 patients in wards. They are also working on a wearable patch and wrist band which can help detect the virus and symptoms in individuals.

Murthy said the department was also working on low-cost, portable and mechanically actuated ventilator. Since the testing of this ventilator has been completed, he said the institute had tied up with HMT Industries for mass production.

Stating that several faculty members of Bio-Tech, Bio-medical, Materials and Chemical Engineering departments have been collectively working to develop medicines and vaccinations for coronavirus, the IIT-H Director said a wearable patch that can detect the coronavirus in individuals and filters, which can kill the virus, is also being developed. The

testing of these filters is being carried out at the Centre for Cellular and Molecular Biology (CCMB).

“Once the testing is completed, we will be in a position to manufacture them on a large scale by tying up with an Industry for the public good, Prof Murthy said. The institute was also working on sensors and wrist bands which can rapidly detect coronavirus symptoms among the infected. Stating that some faculty members were working on developing rapid, portable and low-cost screening kits, Prof Murthy said they were also developing sensors that would track and monitor coronavirus infected people when Bluetooth is enabled in phones and other devices. Stating that quite a few faculties were working on these, the Director said the prototypes of these devices were ready and testing was on. Elaborating their work further, Prof Murthy said that a faculty had developed a reusable and auto-clavable faceshield mask, which can be reused by just changing the filter.

The Director said that an incubator at CfHE (Centre for Healthcare Entrepreneurship) developed a sustainable, sterilizable and protective face shield and a gown, which is called u-safe. It has been tested and ready for protection. Another startup is working on a low-cost, portable ventilator, which is called as G-1, he said adding that a low-cost, and portable ECG which can be used in ambulances and homes was also being developed. The Director said they were also working on medicines and vaccinations which can prevent the infection.

He further said the IIT-H had developed some mobile applications to help local administrations support in the distribution of medicines, groceries and in monitoring quarantined persons. Prof Murthy said that some faculty had come up with IoT-enabled remote monitoring devices which can monitor temperature and respiration in quarantined and positive persons. The Director said they were also working on a visual surveillance system which would be useful in monitoring physical distancing among people as also wearing of masks. The faculty was also developing a UV box which can be used to disinfect the masks, he added.

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