

**Table: Universities/HEIs Presenting in CCC virtual Exhibition on Electronic and IT**

University	Product Category	Food product & Innovative feature
University of Moratuwa	Electronic	<p>AC Controlling System</p> <p>Supermarkets where split-type air conditioners are used waste electricity unnecessarily. It is possible to reduce 10% of monthly electricity bill by introducing this invention, which uses a sensor network to centralize control of AC units. It turns AC units ON/OFF and set the temperature automatically while keeping just the right level of comfort within the supermarket. This system is non-invasive and cheap to implement on existing AC units.</p>
	Electronic	<p>Household Steam Inhaling Device</p> <p>This device, electrically powered, generates steam mixed with medicinal essence and direct it to the face and sinuses of the person for effective steam inhalation. Temperature can be set as needed, and the mask is detachable and washable for all the family members to use. It makes steam inhaling as a Covid preventive measure a lot easier and effective.</p>
	Electronic	<p>Agricultural Drone Solutions</p> <p>The customizable plant health based spraying drone system for agriculture and specifically monitoring the plant health which controls the chemical usage for the crops on real time to enable the farmers to use fertilizer in required amounts.</p>
	Electronic/IT	<p>Low-cost wireless sensor node</p> <p>This a wireless sensor node developed for structural health monitoring of civil infrastructures. The sensor node is capable of measuring very small vibrations (1 mg range). The communication between each node was established using a wireless network protocol, sub-1 GHz (Radio waves). Low power consumption. Efficient in time synchronization, scalability, packet handling (collision), packet loss, data storage, and power consumption. The product is made using off the shelf products such as Raspberry PI, CC1310 and</p>

		powerful antennas. The Algorithm implemented in the node is proved to be very efficient after a series of applications.
Sabaragamuwa University of Sri Lanka	IT	Real-Time Location-based Augmented Reality Platform for Smart City
	Electric	Process automation of tea withering by incorporating solar energy
	Electric	A solar-powered cabinet dryer model for white pepper ( <i>Piper nigrum</i> L.) processing
Uva Wellassa University	IT	A Web Based Deep Learning Algorithm for Autonomous Navigation Robot
	Robotics	Self-driving golf cart using RGBD sensor and Robot Operating System (ROS) which is applicable for indoor and outdoor environments.
University of Colombo	Electric/Electronic	<p>Electric Field Mill with Adjustable Sensitivity.</p> <p>The new design can be used to determine the magnitude and polarity of ambient electric fields with high resolution. The new mechanism enables the device to be functional with low power for a prolonged period with less wear and tear.</p> <p>The new design of electric field mill also comprises an optional sensitivity adjustment mechanism which also enables the design to be utilized for a wider range. The field mill can be used to measure ambient field without saturation in the measurement.</p> <p>The device with its flexible design can be used for detecting electric fields during atmospheric conditions such as lightning, measuring electric fields around high voltage power lines, measuring electrical leakages in industries, and be miniaturized for other minor conditions</p>
Wayamba University of Sri Lanka	IT	Customer Experience Management Platform (CEMP)
	IT	Employee Talent Development Survey

	IT	Machine Vision-based Product Quality Monitoring System
University of Kelaniya	Electronic	Auto Removing Regulator for Liquefied Petroleum Gas Cylinders and Electricity CUT-OFF System at Gas Leakages
Open University	Electronic	spin coater
	IT	Color QR code
	Electronic	Vertical Gardening Kit
	Electronic	GPS system
Visual and Performing Arts	Electric	Electric “Dakkiya”
	Mobile App/IT	Music Educational Tool
	Electric	Smart Walking Stick
	IT / VR	Virtual Reality relaxation App
University of Jaffa	Electronic	Automated Faucet- Water and liquid soap dispensing from same spout with customized time
	Electronic	Automated Flour Roaster, Seiver and Cooler- Multipurpose Medium scale flour roaster
South Eastern University	Electronic/IT	Vision Based Navigation System: Software system for vision assisted navigation of UAVs. The software system consists of number novel techniques to reduce uncertainty in vision-assisted navigation in UAVs. The system is useful for autonomous and semi-autonomous UAV applications, including spot spraying in agriculture, search and rescue, and close inspection.
	IT	Systems and methods for QaaS (Quality assurance as a Service): Compared to the existing products in the market, less human intervention and less training is needed . Virtually no programming knowledge is needed for a QA to perform test automation. This technology has the potential to enable the adoption of automated testing and QA procedures even in medium or small software companies.
	IT/ Electronic	Bus App: An Android App capable of showing current bus location of a requested route and arrival time prediction based on historical data.

	Electrical/ Electronic	Energy harvesting mobile charger: A compact mobile charger built into the mobile casing with wireless energy harvesting
	Electronic	Humanoid robot mouth
	IT	Automatic traffic signal detector and driver notification system
Rajarata University of Sri Lanka	IT	Path finder web application - This application will help Personality, Preferred working Environment & Learning style all together in matching the selection process of Person-Career / Person-Study.
	IT	G smart auto pilot device - A device that can remotely control any vehicle without internet connection.
University of Peradeniya	Electric	Chemical droplets counter
	Internet of things	Smart Seal
University of Ruhuna	Electronic	<p>Product: Full autonomous all-sky camera with shading mechanism</p> <p>Features:</p> <ul style="list-style-type: none"> <li>● 180 degrees field of view</li> <li>● Day and nighttime capturing</li> <li>● Full autonomous data acquisition</li> <li>● Built in storage space for data storing</li> <li>● Automated shading mechanism for cover the sun in daytime</li> <li>● Wireless communication through WiFi</li> <li>● 24x7 continuous capturing</li> </ul> <p>Applicability of object detection algorithms and data mining techniques.</p>
	Mechatronics	<ul style="list-style-type: none"> <li>● The MedBot is a mobile wheeled robot developed especially focusing needs of hospitals to disinfect hospitals, deliver medicine, foods, and monitor patients and to enforce quarantine restrictions. Through this healthcare worker in contracting the disease will be minimized.</li> </ul> <p>The design of the MedBot is a unique design and the robot shape and dimensions,</p>

		the mechanical structure and the controller of the MedBot were designed following the mobile robotics engineering product design concepts.
	Electronic	<ul style="list-style-type: none"> <li>MEDICUS+ Roobot for remote patient monitoring and real time communication</li> </ul> <p>Real time communication with patient monitoring, Flexibility to use existing patient monitors</p>
Eastern University	IT	<p>Federated Information Retrieval System</p> <p>This virtual tool provides single-window real-time information search facilities. The virtual tool designed to display up-to-date information collections in the University Library/Information Center/Research Institute. These virtual tools consist of various research outputs in a single umbrella such as books, articles, abstracts, theses, reports, eBook, patents, etc. The virtual tool has been developed based on Open Standards and Open Source (OSS) Software.</p>
<b>Nonstate Higher Education Institutes</b>	<b>Product Category</b>	<b>Food product &amp; Innovative feature</b>
KIU	IT	<p><b>Product:</b> Mobile Application for Self- selection of Contraceptive Method</p> <p><b>Innovative Features:</b> One mobile application containing following features developed based on the data obtained from Sri Lankan context</p> <ul style="list-style-type: none"> <li>Advantages vs disadvantages in variety of contraceptives</li> <li>Selecting best contraceptive method for self</li> <li>Health tips regarding sexual health</li> <li>A tracker to keep details on menstruation cycle</li> <li>Pregnancy related health advices and instructions (nutrition, exercise)</li> </ul>

SLIIT	IT	<p>Vet Pulz: A Veterinary Practice Management software for Veterinary Health Sector. Software is a cloud-based solution which can be accessed from any location from any device that has web browser. Solution keeps animal electronic medical records (EMRs) with attachments of images, lab reports, and X-Ray images. Software is a comprehensive MIS that covers appointment management, scheduling, queue management, clinic (OPD), pharmacy and inventory, laboratory, radiology, inward and boarding, tele-medicine facility to communicate with doctor during lockdowns, billing, and service &amp; pricing modules. System is designed to scale the functions of the software to cater different clinical setups to cover small clinics to large veterinary hospitals.</p>
CINEC	Electrical, electronic & IT	<p><b>Simulation and Prototype Platform to Perform Control Systems Laboratory Experiments For Academic Studies.</b> Application Field : Academic Institutes (Mechatronics and Mechanical). The prototype platform is an inexpensive alternative to conduct academic level laboratory experiments on controls related theories while the simulation platform allows to conduct similar experiments and obtain correlating results which can be utilized for remote learning laboratory sessions</p>
	Electrical, electronic & IT	<p><b>Prototype of a Semi-Autonomous Electric Car &amp; a Steer by Wire Steering System.</b> The prototype of the Semi-Autonomous Electric Car is being made by integrating open source softwares and an Iot platform know as "donkey" in to a raspberry pi microcontroller. The steer by wire Steering System has been developed to replace the existing mechanical steering linkage system. The Semi-Autonomous Electric Car - to build up an inexpensive platform which can be used to develop a</p>

		computer brain for autonomous vehicles. The steer by wire Steering System - to develop a steering system which can be used to connect the developed computer brain.
	Electrical, electronic & IT	<b>Food Sniffer for Bakery Products.</b> The testing device check the quality & spoilage of bakery products such as bread and buns which do not have inner filling.