



## Transfer of Technology - Ablution Water Saver

<b>Principal Investigator</b>	Dr. Arun Raaza
<b>Applications</b>	<p>This device is a smart tap by which people can perform their Ablution in a traditional manner and can wash their legs, hands and other body parts. The other existing taps can sense only the hand as their range is limited and they suffer from other problems like reflections which make them to not to be used for whole body ablution. This device intelligently senses the hand and leg kept at any distance for ablution by overcoming the above problems and saves huge amount of water when removed from vicinity. For the ease of use there is a laser pointer for users to place their hands/legs and wash. The flow rate of the tap can also be manually controlled. The device is easy to install and plug &amp; play. Most importantly the device is cost effective and can be mass produced in India. Muslims perform Ablution 5 times a day. Every time they consume 4-5 liters of water for Ablution and huge amount of water is being wasted in the process. Since water scarcity is a global problem with several top cities running out of water we selected this problem. Once this tap is introduced for Ablution 40-50% of water can be conserved. This is a huge saving of natural resources.</p>
<b>Vendors</b>	





## Transfer of Technology - Accident Alert System

<b>Principal Investigator</b>	Dr. Arun Raaza, Dr. M. Monisha
<b>Applications</b>	This device can be installed in any car. Whenever the car meets with an accident it send alert notifications to family members or pre set numbers along with live location. This device enables family members to know that an accident has happened and the location of the accident as well. This can be installed in all types of cars and vehicles.
<b>Vendors</b>	



# Transfer of Technology - Auto Controller

Principal Investigator	Dr. Arun Raaza
Applications	ATM Auto Controller which controls only few ACs and lights, we contributed to another upgraded innovative version of the same named Building Power Conservator where in any number of loads can be connected to the device and can be controlled in a timed manner. We have incorporated the same in our University for power conservation which reduced our EB bills by conserving power during unwanted hours. This device is deployed in Jockey retail shops.
Impact	Deployed in 4000+ ATMs and have saved around 62.5 million electrical units so far.
Vendors	 



Auto Controller deployed in SBI ATM




Appreciation letter from Indian Bank




Appreciation letter from State Bank of India

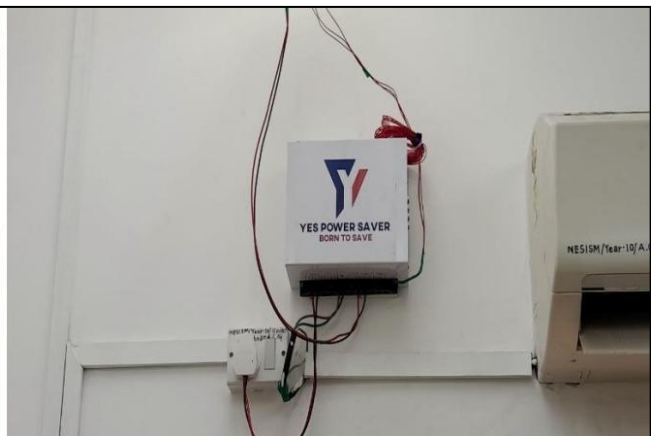
## Transfer of Technology - Emergency Charger

<b>Principal Investigator</b>	Dr. Arun Raaza
<b>Applications</b>	This device is proposed to overcome the issue of no charge scenario in mobile phones when there is power cut for longer duration (or) in case of natural calamities where there will be no power supply for weeks. This device uses the power from the commonly available batteries that are available in TV remote, clocks etc., to charge the mobile phone to use in emergency need.
<b>Vendors</b>	




## Transfer of Technology - Intelligent Power Saver

<b>Principal Investigator</b>	Dr Arun Raaza, Yashvardhan Balasubramaniam
<b>Applications</b>	This device is used for energy conservation as it cuts off the load during unwanted working hours. This device differentiates human and non human in its vicinity and turns off the power to loads when human isn't available in its vicinity. Any loads can be automated integrated with this device.
<b>Vendors</b>	




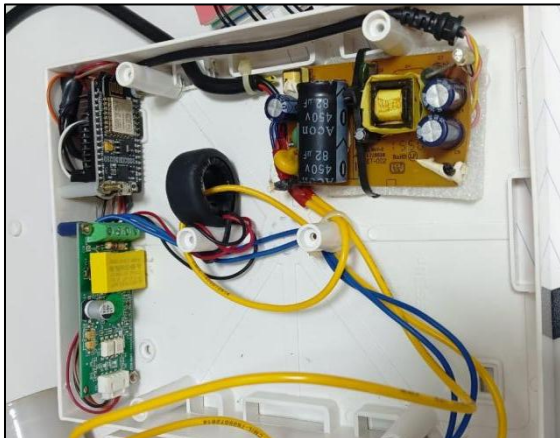
## Transfer of Technology - IoT Based Smart Dustbin

<b>Principal Investigator</b>	Dr. Arun Raaza, Dr. M. Meena
<b>Applications</b>	Smart dustbin is an autonomous dustbin activation and maintenance system. This is much needed for sustainable and clean environment. It will open the lid of the dustbin by sensing the person's presence in front of it and as soon as the person leaves the place the lid will close automatically. By sensing 75% occupancy of the waste materials dumped into it the dustbin it will give alert sound, light indication as well as email alerts to the concerned authorities indicating that the dustbin is full and we have to empty the bin.
<b>Vendors</b>	 TOUCHWELL INDUSTRY




## Transfer of Technology - IoT Based Smart Energy Indicator

<b>Principal Investigator</b>	Dr. Arun Raaza, Dr. S. Vijayaraj
<b>Applications</b>	This device indicates the live units consumed by a load connected to it. Any loads like CNC machine, AC, pump etc can be connected to this device and the entire units consumed by the load can be viewed from any part of the world using IoT. This device gives real time data and awareness to users on the units consumed by their loads in industries, homes and offices.
<b>Vendors</b>	 TOUCHWELL INDUSTRY



# Transfer of Technology - IoT Based Smart Locker




<b>Principal Investigator</b>	Dr. Arun Raaza
<b>Applications</b>	<p>A novel smart locker is proposed to avoid theft of valuable belongings like documents, jewels etc. The smart locker constitutes of unique mechanical design and is incorporated with wireless technology to alert users in case of extortion. The locker itself is specially designed and made up of metal to accommodate belongings inside. The smart locker constitute of multiple sensors and IoT device to alert the in-charge person in case of theft. In case of breaking, vibrating, lifting or stealing through door of smart locker, the sensors will intimate the IoT device which in turn sends an E-mail to the in-charge persons. Also there is a local alarm which produces sound continuously as required to create panic for burglars and alert public. Inside the IoT device, there is a Battery back-up for about 8 hours in case of unlikely event like power shutdown or main power source being disconnected by burglars.</p>
<b>Vendors</b>	



With State Bank of India officials at SBI LHO, Nugambakkam




# Transfer of Technology - Mobile Controlled Extinguisher Rover

<b>Principal Investigator</b>	Dr. B. Ebenezer Abishek, Dr. Arun Raaza
<b>Applications</b>	Used for extinguishing fire by replacing fire fighters who are always at risk of being harmed or even killed by disastrous fire accidents. Used as a substitute for fire fighter to save their lives and to tackle the radiation suffered during nuclear explosions and chemical industries accidents which human body can't sustain.
<b>Vendors</b>	  




## Transfer of Technology - Tablet Vending Machine

<b>Principal Investigator</b>	Dr. Arun Raaza
<b>Applications</b>	The tablet vending machine reminds the patients with vending of tablet on a timely basis. The device vent out the tablet on pre-set time and also gives a buzzing sound until the tablet is consumed. For breakfast, lunch and dinner before food and after food tablets can be placed in the tablet placing provision of the device and the time reminder can be pre-set by the users. Accordingly the device reminds the patients to consume the tablets. This device is highly useful for elderly patients and professionals who are very busy at their work places to remind their timely medicine intake.
<b>Vendors</b>	 ARCOMM NURTURING YOUNG INNOVATORS WORLDWIDE




## Transfer of Technology - Tilt Switch

<b>Principal Investigator</b>	Dr. Arun Raaza, Dr. S. Vijayaraj
<b>Applications</b>	An automated device will be placed in snacks/drinks/medicine vending refrigerator box. In case if the refrigerator box is displaced or tilted from its originally installed position the automated device cuts off the power to the refrigerator. Once the automated box is fixed in the refrigerator and switched on it automatically calibrates its XYZ axis. It is programmed in such a way if there is more than +/- 15° tilt or change in position it shuts down the entire system.
<b>Vendors</b>	




## Transfer of Technology - Waste Segregation System

<b>Principal Investigator</b>	Dr. K. Sushita, Dr. Arun Raaza
<b>Applications</b>	<p>A novel waste segregation system is proposed. This device is intelligent to segregate E-Waste, dry waste and wet waste. The device constitutes of metal detector, wet sensor, proximity sensor and ultrasonic sensor. Once we dump a waste in this dustbin using the metal detector it identifies if the material dumped is E-Waste, or if the material is wet the dustbin identifies if the material is wet waste and if doesn't meet both criterions the dustbin identifies the material as dry waste. The dustbin is smart to open the lid when we go near and close lid when we move away. Also the dustbin indicates the user and garbage collector if the dustbin is full.</p>
<b>Vendors</b>	




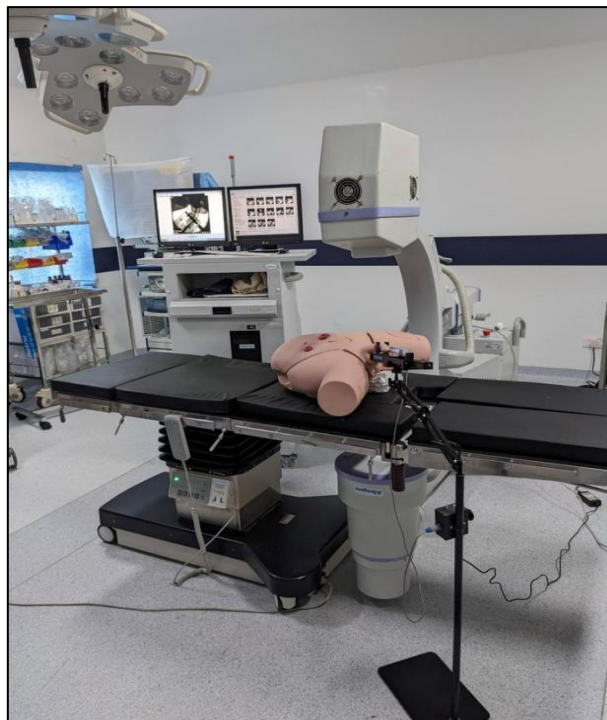
# Transfer of Technology - Wearable Elder Emergency Device

<b>Principal Investigator</b>	Dr. Arun Raaza, Rajagopal
<b>Applications</b>	This is a wearable device for elders and heart patients. When they fall suddenly due to an emergency health issue on a floor, this device triggers notification to a family member, thus intimating to act fast to address the emergency situation. This device acts as a human life-saving device.
<b>Vendors</b>	



## Transfer of Technology - Wireless Automation for Retrograde Urethrogram

<b>Principal Investigator</b>	Dr. M. Ramalingam, Dr. Arun Raaza
<b>Applications</b>	A novel device is developed to perform Urethrogram process wirelessly by doctors which enables them to be 100% free from hazardous X-Ray radiations. Using this device doctor will be able to inject X-Ray contrast through penis of the male which helps in diagnosing for urethral injury or urethral stricture. The injector of the device is wirelessly controlled via RF remote by the doctors. Both the entire device as well as injector part is portable and flexible which makes the Urethrogram process easier and comfortable for both doctors as well as patients.
<b>Vendors</b>	



## Transfer of Technology - Women Safety Device

<b>Principal Investigator</b>	Dr. Arun Raaza, Dr. M. Meena
<b>Applications</b>	To address sensitive and life threatening cases like kidnapping, molestation and rape this device is proposed so that the children and women are safe in the society. The project is wearable or can be carried in any handbag/pouch of children and women easily. The components used in this project are GSM Module, GPRS antenna and a battery. When a child or women is in danger they can press the switch provided in the device which will trigger an alert SMS with live GPS location to parent's phone. Thus sending an alert SMS and location identification is possible with this device ensuring child and women safety.
<b>Vendors</b>	