

DEPARTMENT OF ELECTRONICS, TIST

BTech ECE, BTech RA, MTech Wireless Technology

**IMPACT - Innovative Methods, Projects and
Community Technologies Lab**



“If you look at history, innovation doesn’t come just from giving people incentives; it comes from creating environments where their ideas can connect.” Steven Johnson

Keeping this precept in mind, the Department of Electronics has established the **IMPACT** Lab where creativity, innovation and social mindedness can flourish. The Department of Electronics, which runs a BTech program in Electronics and Communication Engineering, a BTech program in Robotics and Automation and an MTech program in Wireless Technologies, is the ideal environment where multidisciplinary technologies can flourish and innovations can be used to accelerate social good.

“The value of an idea lies in the using of it.” Thomas Edison. The **IMPACT** Lab provides a space for likeminded students, faculty and staff to gather to dream up, implement and test their ideas.

The **IMPACT** Lab is much more than a physical space with state-of-the-art facilities. Rather it is a concept that can be carried out of the constraints of physical boundaries and get ingrained into the daily lives of those involved.

In addition to creating an impact on those directly involved, the **IMPACT** Lab also strives to focus on methods, projects, products and services that are beneficial to society.

The Department has a two-pronged approach to the development of its stakeholders through its **Skill Planning** and **Acquisition Cell SPAN** along with the **IMPACT** Lab. These two ventures strive hand in hand to develop technologies and services beneficial to our community.

Objectives

1. To sustain a forum that nurtures creativity through regular discussions and brain storming
2. To provide physical space and facilities to bring ideas to implementation
3. To facilitate fruitful innovation through mentoring
4. To transform students, faculty and staff to socially minded people by focussing on innovations that create a beneficial impact on society.

Focus Areas

The focus areas of the **IMPACT** Lab include innovations in embedded systems, IoT and other communication technologies and image processing and vision-based techniques to support agriculture, weather and disaster management, medical electronic devices, use of robotics and automation technologies to improve the quality of life of members of our society among others.

PATENTS

Toc H
INSTITUTE OF SCIENCE & TECHNOLOGY



Patent No: 407463

Congratulations **Indian Patent**



Dr. Deepa
Elizabeth George



Dhanya
Rajeswari



Swathy
Satheesh



Shiyon
P Johnson



Dr. Georgina
Binoy Joseph

For the invention of

"A system to clean waste from tunnels"



Department of Electronics



Toc H Kochi



Patent No: 2022/01062

South African Innovation Patent



Dr. Georgina Binoy
Joseph



Dr. Deepa
Elizabeth George



Dhanya
Rajeswari



Neethu
George



Deepa Mary
Varghese

For the invention

A Portable and Rapid Malaria Detecting Device



Department of Electronics



Toc H Kochi

AVODHA, CHALO INDIA STARTUP FUNDING COMPETITION - WINNERS



Toc H INSTITUTE OF SCIENCE & TECHNOLOGY
AVODHA Education for a Job
chalo india Integrating Rural India with Urban Development

TIST
Tech Park
NBA NATIONAL BOARD OF ACCREDITATION
SAAC ACCREDITED INSTITUTE
ISO 9001:2015 Certified Institution

chalo india
PAY TO THE ORDER OF CHALO INDIA
RUPEES ONE LAKH ONLY
₹ 1,00,000/-
AVODHA

Congratulations!
WINNERS

Team Demeter

Prithvi Ullas, Asheen Afthab M, Vishnu P A, Abdul Rahman Jasbeer
S6 Robotics and Automation, Mr. Nisanth Krishnan, Asst. Prof. DoE

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
STARTUP MISSION
INNOVATION AND ENTREPRENEURSHIP DEVELOPMENT CENTRE
IED TIST
INSTITUTION'S INNOVATION COUNCIL
Toc H Kochi

SRISHTI 2023 – Honours

Anfil Shajo, S6 BTech Robotics and Automation

Best Robotics Project and the Best Project Among All Streams – Rs 12000

Best Innovation Award" for the project "Veeksha" - Rs 1 lakh

Toc H Institute of Science & Technology

Best Institution-Ever Rolling Trophy

Dr. Deepa Elizabeth George (Head of the Department, Department of Electronics)

Best Mentor Award - Rs. 5000

Toc H is receiving the Best Robotics Project Award for the second time in a row. The proposal was chosen from among 1400 submissions from 13 Indian states.



Our S6 Robotics and Automation Student Anfil Shajo receiving the "Best Innovation Award" of Rs. 1 lakh at 'SRISHTI 2023' for the project titled 'Veeksha'

Toc H has received the "BEST INSTITUTION AWARD"

DEPARTMENT OF ELECTRONICS





A NAAC ACCREDITED INSTITUTE WITH NBA ACCREDITED UG PROGRAMS





HACKLOOP -24 hour Hackathon Winners






IMPACT Lab - Project Competition Winners







Toc H   **TIST**
INSTITUTE OF SCIENCE & TECHNOLOGY

FIRST PRIZE WINNERS OF PROJECT COMPETITION

"IOT BASED SMART DUSTBIN"

		
ABHISHEK G S6 ECE	MOHAMMED HADIL S6 ECE	ANWIN ANTONY S6 ECE

 **ToCH Kochi**   **DEPARTMENT OF ELECTRONICS**   

A NAAC ACCREDITED INSTITUTE WITH NBA ACCREDITED UG PROGRAMS

FIRST PRIZE WINNERS OF PROJECT COMPETITION

"UV SANITISATION ROBOT"



ABHIRAM M
S6 RA



FELIX JOSE
S6 RA



MELWIN JORDY
S6 RA



RITHWIK K A
S6 RA

SECOND PRIZE WINNERS OF PROJECT COMPETITION

"Integrated Smart Cane for Blind Ultrasonic sight"



NOEL XAVIER MANUEL
S6 ECE



ANJALI R
S6 ECE



GOPIKA SURESH
S6 ECE



MOHAMMED ASIF P A
S6 ECE

SECOND PRIZE WINNERS OF PROJECT COMPETITION

"NORBIT- Medicine Delivery Robot"



AMAL ROSHAN K
S6 RA



AMINATH HYRA
S6 RA



AMINATH HYRA
S6 RA



GANGA S R
S6 RA



TocH Kochi

 **RSI**
Rajawade Society of India

 **IMP**
IMP

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THIRD PRIZE WINNERS OF PROJECT COMPETITION

"AUTOMATED HYDROPONIC SYSTEM"



ABHIRAMI CHANDRAN
S6 ECE



AKHILASREE J
S6 ECE



ANEETA JAMES
S6 ECE



NIMISHA K SHAJI
S6 ECE



TocH Kochi

 **RSI**
Rajawade Society of India

 **IMP**
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THIRD PRIZE WINNERS OF PROJECT COMPETITION

"FILE-BOT: File Delivery Robot"



JOEL JOSE
S6 RA



ALEENA VARGHESE
S6 RA



SREELEKSHMI B
S6 RA



JAYAKRISHNAN P U
S6 RA

S. NO.	DATE	PROGRAM	CONDUCTED BY	PRIZE
External Competitions				
1	13.8.2022	Idea Pitching for Startup Funding (Rs 1 lakh funding)	AVODHA	1 st Prize: Team Demeter - Prithvi Ullas, Asheen Afthab M, Vishnu P A, Abdul Rahman Jasbeer, S6 RA, Faculty Mentor: Asst. Prof Nishanth Krishnan Rs 1 lakh Funding received
2	29.3.2023	SRISHTI 2023 - National level technical project exhibition and competition	SAINTGITS	Best Robotics Project and the Best Project Among All Streams - Veeksha - Anfil Shajo, S6 RA (Rs 12 Thousand)

				Best Innovation Award - Anfil Shajo, S6 RA (Rs 1 lakh) Best Institution-Ever Rolling Trophy – Toc H Institute of Science & Technology Best Mentor Award - Dr. Deepa Elizabeth George (Rs 5000)
3	2 & 3.5.2023	HACKLOOP -24 hour Hackathon	Obscura Techfest, Ilahia College of Engineering and Technology	2 nd Prize: Hafiz Shafeekh, Sandeep Prakash, S4 RA

S. NO.	DATE	PROGRAM	BATCH	NUMBER OF STUDENTS	PRIZE
Competitions @ TIST					
1		IMPACT Lab Project Competition	S6 ECE S6 RA	34 59	1st Prize: IoT based Smart Dust Bin - Abhishek G, Anwin Antony, Mohammed Hadil, S6 ECE
					1st Prize: UV Disinfection Robot - Abhiram M, Felix Jose, Melwin Jordy, Rithwik K A, S6 RA
					2nd Prize: Integrated Smart Cane for Blind Ultrasonic sight - Anjali R, Gopika Suresh, Mohammed Asif P A, Noel Xavier Manuel, S6 ECE
					2nd Prize: NORBIT-Medicine delivery robot - Amal Roshan K, Aminath Hyra, Blesson Pt, Ganga.S.R, S6 RA
					3rd Prize: Automated Hydroponic system - Abhirami Chandran, Akhila Sree J, Aneeta James, Nimisha K Shaji, S6 ECE
					3rd Prize: FILE-BOT : File Delivery Robot - Jayakrishnan P U, Joel

				Jose, Sreelakshmi.B, Aleena Varghese, S6 RA
				Consolation Prize: Anti sleep Alarm for Drivers - Alpha George, Diya Cabral, Amrutha P S, Amrutha Ashok Kumar, S6 ECE
				Consolation Prize: Vaccum cleaner robot - Anoj Reji, Aju S George, Jaswin Binu, S6 RA
				Consolation Prize: IoT Based Agricultural Automatic Irrigation and Surveying system, Azhar Mahamood, Mohammed Nazeem, Ayester Denny, Edwin Thankachan, S6 ECE
				Consolation Prize: Fire Extinguishing Robot - Aravind S, Eben Samuel Sabu, Naushir Ali M, S6 RA
				Consolation Prize: DEMETER - Agricultural Drone - Abdul Rahiman Jasbeer K A, Asheen Afthab.M, Prithvi Ullas, Vishnu P A, S6 RA

Abhinav Vichaar 2023 - Prize Winners



Toc H students from S6 Robotics and Automation have secured first and second position at 'Abhinav Vichaar 2023' an Intercollegiate state-level project competition for B Tech students hosted by AISAT on 23rd June 2023. Anfil Shajo secured first prize while the team of Akshay Kannan, Basil Shaju, Miquidad R F and Devakrishna secured second position.

Our college has received their ever rolling trophy for the year 2023

Team "OCTS" receiving Appreciation certificate during Convocation ceremony



'KGF' event (Konstruct Generation Framework)

Jayakrishnan P U (S8 Robotics and Automation, Toc H) secured the 2nd prize in the prestigious 'KGF' event (Konstruct Generation Framework) organized by IEEE CRFID Kerala Section



Prize winners for IEEE Robocon 2023

S6 Robotics and Automation students Akshay Kannan, Miqudad, Devakrishna and Basil Shaju have won the expo competition conducted during the IEEE Robocon 2023 – 12, 13 April 2023



PRISMA - Project Expo Competition

S6 RA students Akshay Kannan, Miqudad, Devakrishna and Basil Shaju have won the project expo competition organised by Christ college of engineering, Irinjalakkuda on 12 April 2023



Samsung Solve for Tomorrow

Solve for Tomorrow is a national education and innovation competition for Gen Z. Team Demeter from Toc H S8 Robotics and Automation – Abdul Rahiman Jasbeer KA, Prithvi Ullas, Asheen Afthab M have reached the Top 10 in Solve for Tomorrow 2023 for their Drone based project for Agriculture





S. NO.	DATE	PROGRAM	BATCH	NUMBER OF STUDENTS	PRIZE
Competitions @ TIST					
1	23.6.2023	IMPACT Lab - Major Project Competition	S8 ECE S8 RA	34 58	1st Prize: Automatic Pothole Detection and Filling Using Machine Learning - Alpha George, Amrutha Ashok Kumar, Amrutha PS & Anjali R (S8 ECE)
					1st Prize: Robotic Arm Enabled Semi Automated Tea Harvester with IoT and AI on the Edge - Aidrin Varghese, Aleena Varghese, Joel Jose & Sreelakshmi B (S8 RA)
					2nd Prize: Computer Vision Based Trash Classification and Waste Segregation - Anwin Antony, Mohamed Hadil A K & Abhishek Ganesan (S8 ECE)
					2nd Prize: Vision Based Sign Language Recognition System (VSLR) - Gayathri Narayanan,

					Gokul Krishna S, Hamna K H and Sahil B Pillai (S8 RA)
					3rd Prize: Automated Mining Safety Bot - Ananda Krishnan CA, Gopika Suresh, Mohammed Asif PA & Zahra Abdul Kareem (S8 ECE)
					3rd Prize: Voice controlled Wheel Chair for Tetraplegics - Mohamed Aslam, Muhammed Rafnas & Sonu Jaleel (S8 RA)
2	23.6.2023	IMPACT Lab - Mini Project Competition	S6 ECE S6 RA	28 46	1st Prize: Smart Mirror - Akash KS, Akshay K, Athulya K Saju & Krishna Priya C Nair (S6 ECE)
					1st Prize: Med-Drone - Alwin Jojo, Amal Prakash, Anfil Shajo & Justin Joe (S6 RA)
					2nd Prize: Smart Shield - Dion Glesson, Fidha Fathima, Gayathri Sivakumar & M S Muhammed Musafir
					2nd Prize: Inspector Bot - Adarsh V S, Jedin Jeby Mathew, Joseph Mathew Thuruthiyil & Sidharth Sunil (S6 RA)
					3rd Prize: D- Intelligence - Adarsh R, Esha Fathima MA, Glereena Mary Dcoutho, Vyshnav K V (S6 ECE)
					3rd Prize: Robotray - Akhil R, Antony Bristow, B Sidharth, Olickal Noble Jacob