

ACHIEVEMENTS 2021 – 2022

DEPARTMENT ACHIEVEMENTS

Toc H has signed MoU with **Advanced Centre for Atmospheric Radar Research (ACARR), CUSAT** for promoting research collaborations, joint publications, and funding. ACARR pursue internationally leading research in atmospheric science in the tropical monsoon area by establishing sophisticated observational networks using advanced technology and numerical models. The center also focuses on understanding and testing effective ways of co-producing and communicating knowledge through meaningful interactions between researchers, knowledge intermediaries, and stakeholders.



RESEARCH COLLABORATION – ACARR CUSAT



An Automatic Weather Station (AWS) along with a 2-D Video Disdrometer are installed at TIST campus as part of a joint research collaboration between the Department of Electronics, Toc H and Advanced Centre for Atmospheric Radar Research (ACARR), CUSAT under the funded research project of Ministry of Earth Sciences(MoES), Government of India.

AWS networks are an integral part of weather forecasting and monitoring systems worldwide. These systems typically measure Wind Speed, Wind Direction, Air Temperature, Relative Humidity, Precipitation, Solar radiation etc. The system includes high-quality sensors, which are needed for defensible data in environmental research, as well as critical operations dependent on continual weather monitoring.



2D Video Disdrometer, an instrument worth 70 lakhs, developed by JOENNEUM RESEARCH, GRAZ, AUSTRIA was installed at TIST Campus on 6th April 2022 by Mr Lammer Gunter, Scientist, Joenneum Research. The research institute develops solutions and technologies for a broad range of industries and public agencies and is engaged in top applied research at an international level.

The 2D video disdrometer provides the necessary detailed information: with two high-speed cameras, precipitation particles are filmed from the front and the side and, thus, measured with a high degree of accuracy. The data stored in the analytical computer provide information about the size, shape, aggregation state, spatial position and fall speed of each precipitate particle. The measured data, supplemented by calculated data such as the rainfall rate or particle size distribution, provides a basis for more accurate weather forecasts and allows precise statements to be made about the effects of each type of precipitation on satellite communication.

Toc H has MoU with **Shrishti Robotics Technologies Pvt. Ltd. & EyeROV Technologies Pvt. Ltd. Kochi** for Industry-academia collaborations, internships and industrial training for students. Srishti Robotics is one of the leading companies in Kochi offering training in Robotics, Embedded systems and IoT. EyeROV is a fast-growing marine robotics company, providing products and solutions in the field of under-water domain to various Defence and Research organizations.



Tie up institute-ATAL Tinkering Lab, Fathima Central School, Piravom

We are happy to announce that Toc H is now the tie-up institute for setting up the ATAL Tinkering Lab at Fathima Central School, Piravom. The lab was inaugurated on Oct 23, 2021, by Anoop Jacob MLA in presence of other dignitaries, and the event was felicitated by Dr. Deepa Elizabeth George, HOD Dept of Electronics.

Department of Electronics at Toc H will be the mentor department for the lab. The Skill Planning and Acquisition (SPAN) Cell of the department will be providing training sessions to students. The key areas of training are embedded systems and Robotics.





STUDENT ACHIEVEMENTS

The team 'EMERANS' comprising of **Muhammed Rishan, Thimna Raphel, Jyotsna K G, Ganga S R and Amal Roshan** of batch **RA 2019-'23** were the winners of "LIFEATHON Season 2 – Connecting students with Start-ups" organized by IEDC Christ College of Engineering and Kerala Startup Mission.

They got selected out of the 84 entries from 32 colleges and their solution for the problem statement "Baby Monitoring System for Cradle" will be funded by Shristi Robotics.

Faculty Supervisors-**Dr. Deepa Elizabeth George**, HOD, Department of Electronics and **Dr. Georgina Binoy Joseph**, Associate Professor, Department of Electronics.



Mubeena Kabeer, Abhishek K B, Adharsh Antony and Arjun Rajeev of Batch 2018-'22 have secured to be the 1st Runners up in the National RFID Challenge conducted by IEEE RFID TA in collaboration with CRFID, IEEE YP India council and IEEE RFID Council Kerala chapter for their project named COVI-21

TUNNEL RAT: UBA funded socially relevant project

'Tunnel-Rat' (Pipe-Bot) -The gutter cleaning robot can accurately monitor the obstacles in the drains and also clean them up easily. The project is an initiative under the Department of Electronics – 'Impact Lab'. It was funded by the Ministry of Human Resource Development under its 'Unnath Bharat Abhiyan' scheme. Final year students- **Chinnu P B, Parvathy Kannan, Sreenivas Kammath and Cliffin Jose (Batch 2017-'21)** have developed this project under the guidance of **Assistant Professors Dhanya R, Swathy Satheesh and Shiyon. P. Johnson**. This socially relevant project has already grabbed the attention of the public and is ready to be implemented in Chottanikara panchayat.

College Principal Dr. Preethi Thekketh, Toc H Public School Society President Dr. Alex Mathew, Director Board members Er. C.S. Varghese, Mr.K.K.Mathew, Head of the Department Dr. Deepa Elizabeth George handed over this project to the Chottinakara Gram Panchayat on September 20th in a ceremony held at Ramanujam hall, Toc H Institute of Science and Technology .Panchayat President Mr. M.R. Rajesh received this project along with Panchayat Development Board Chairman Mr. K.K. Siju.





Unnath Bharat Abhiyan
(A Scheme under MHRD, Govt. of India)




We solicit your esteemed presence for the demonstration of UBA Funded Project "PIPE BOT(Tunnel Rat)" carried out by Department of Electronics in association with Chottanikkara Grama Panchayath

on September 20, 2021 at 1.30 pm
Venue: Ramanujan Hall, Aayalhatta Block, TIST

Prof. (Dr.) Preethi Thekkath
Principal, The W Institute of Science & Technology

01 : 40 pm / Address By
Dr. Alex Mathew
President, The W Public School Society

02 : 00 pm / Project Presentation
By Students

02 : 10 pm / Address By
Mr. M R Rajesh
President, Chottanikkara Grama Panchayath

02 : 20 pm / Felicitation
Mr. K K Siju, Chairman,
District Level Standing Committee,
Chottanikkara Grama Panchayath

02 : 30 pm / Felicitation
Mr. S Shaji
Secretary, Chottanikkara Grama Panchayath

02 : 50 pm / Vote of thanks
District Board Members
The W Public School Society
Dr. C. S. Varughese (Moderator)
Mr. K. K. Mathew (Moderator)
Mr. Kiran Thomas (Moderator)

The project proposal submitted by **ECE 2019-'23 batch** students **Santhosh T R, Shilpa Sassi, Eldho Paulose and Ashwin Sibi** got recommended for funding (Engineering Stream) from the Kerala State Council for Science, Technology and Environment (KSCSTE) under Student Project Scheme 2021.

Faculty Supervisors-**Asst.Professor Dhanya R, Asst.Professor Swathy Satheesh**



Jayakrishnan P U of **RA Batch 2019-'23** has won the EMOJI Contest conducted by TinkerHub, Kochi on October 2021.



Gautam Sunil, Anfil Shajo and Hafiz Shefeekh of **ECE Batch 2020-‘24** has secured 2nd position in the ROBORACE competition (Gesture controlled robot) organized by KMEA Engineering College in association with IEEE and e-yantra Robotics lab on October 1st, 2021

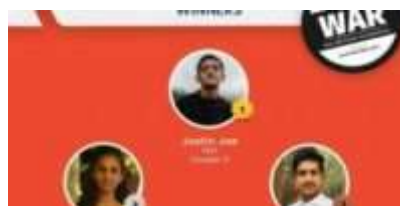
Esha Fathima M A, Aswathy P S, Glereena Mary Dcoutho and Krishnapriya C Nair of **ECE Batch 2020-‘24** has secured 2nd prize for Eureka- idea pitching competition organized by IEEE TIST SB in association with TIST IEDC on February 27th, 2021.





Anjali R of **ECE Batch 2019-‘23** secured third prize for the Cluster war Quiz Competition *”TECH-LASH” organized by IEEE SB of Mar Baselios Christian College of Engineering, Kuttikkanam , Peermade on September 4th ,2021.

Diya Cabral of **ECE Batch 2019-‘23** won the “LIVE QUIZ” conducted by IEEE SB AISAT in association with Inter SB Cluster Competition as a part of KHM, on September 2nd , 2021 .



Justin Joe of **RA Batch 2020-‘24** won the ENIGMA competition conducted by IEEE SB IIT Kottayam, on August 20th , 2021, as part of Inter Student Branch cluster competition organized by IEEE Kochi Hub.

Anfil Shajo and **Gautham sunil** of **RA Batch 2020-’24** bagged First prize for All Kerala B.Tech Project Competition organized by AISAT college on August 7th ,2021. They received a cash prize of Rs.10000.



FACULTY ACHIEVEMENTS

Dr. Deepa Elizabeth George, HOD, Department of Electronics and **Dr. Georgina Binoy Joseph**, Associate Professor, Department of Electronics has been recognized as PhD supervisors / Guide(s) of APJ Abdul Kalam Technological University.



Department congratulates **Dr. Georgina Binoy Joseph**, Associate Professor, Department of Electronics, for being one among the 20 winners of the Ideathon conducted by ARM STMicroelectronics, AICTE ATAL on 26th August 2021.



Department congratulates **Dr. Deepa Elizabeth George**, HOD, Department of Electronics, for getting elevated to the grade of IEEE Senior member. IEEE Senior Membership is an honor bestowed only to those who have made significant contributions to the profession.