

Workshops/Seminars 2020-21

KTU Sponsored Faculty Development Program on “ROBOTICS & ARTIFICIAL INTELLIGENCE” 20/5/2021 to 22/05/2021

A KTU sponsored three days Faculty Development Program on “Robotics and Artificial intelligence was organized by the Department of Electronics, from 20/5/2021 to 22/05/2021. The welcome address for the inaugural session was given by Dr. Deepa Elizabeth George, Head, Department of Electronics, Toc H Institute of Science and Technology. Dr. Alex Mathew, President, Toc H Public School Society gave the presidential address, and Dr. Shyamanta Hazarika, Professor, IIT Guwahati inaugurated the session and delivered the inaugural address specifying the importance of FDP to promote effective learning methodology among the participants. Also Dr. P. J. Joseph, Director, Toc H Public School Society, and Mr. K. K. Mathews, Treasurer, Toc H Public School Society gave felicitations. Dr. Preethi Thekkath, Principal, Toc H Institute of Science and Technology felicitated on the auspicious occasion. Dr. Vinu. R, Associate Professor, Department of Electronics, presented a vote of thanks and concluded the inauguration session.

The resource persons for the FDP were major experts in the field of Robotics and Artificial Intelligence: Dr. Shyamanta M Hazarika, Professor, Department of Mechanical Engineering, IIT Guwahati, Dr. Rajesh Kannan Megalingam, Director, HuT Labs, Amrita School of Engineering, Kollam, Kerala, Dr. Manoj B. S., Professor & Head, Dept. of Avionics Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram, Dr. B. Ramadoss, Professor HAG, Department of Computer Applications, NIT, Tiruchirapalli. Mr. Sunil Paul, CEO, Srishti Robotics Pvt. Ltd Kochi. Around 60 participants from different academic institutions and industries attended the session. The resource person made the session more interesting through multimedia presentation & the participants got ample opportunity to clarify their doubts regarding the topic in the Q & A session.

Session Schedule:

The collage consists of four main images:

- Poster (Left):** A promotional poster for the Faculty Development Program on Robotics and Artificial Intelligence. It features a hand holding a glowing green neural network. Text includes 'Toc H Institute of Science and Technology', 'Faculty Development Program on ROBOTICS AND ARTIFICIAL INTELLIGENCE', and 'Department of Electronics'.
- Inaugural Schedule (Middle):** A detailed schedule for the inaugural session. It lists the following:
 - 08:30 AM: Welcome Address by Dr. Deepa Elizabeth George
 - 09:00 AM: Presidential Address by Dr. Alex Mathew
 - 09:30 AM: Inaugural Address by Dr. Shyamanta M Hazarika
 - 10:00 AM: Special Address by Dr. E. Neelgopal
 - 10:30 AM: Felicitation by Dr. C. S. Joseph
 - 11:00 AM: Introduction by Mr. S. K. Mathew
 - 11:30 AM: Vote of Thanks by Dr. Vinu R
- Session Grid (Right):** A grid showing the daily schedule for May 20, 21, and 22. It is divided into Morning (8:30 AM - 1:00 PM) and Afternoon (1:30 PM - 5:00 PM) sessions. The grid contains various topics and resource person names.
- Resource Person Introduction (Bottom):** A slide titled 'JOREXPE' (likely part of a larger acronym) introducing resource persons:
 - DR. RAJESH KANNAN MEGALINGAM, Director, HuT Labs, Amrita School of Engineering, Kollam, Kerala.
 - DR. B. RAMADOSS, Professor, Department of Computer Applications, NIT, Tiruchirapalli.

Screenshots:



AICTE Sponsored Short term training Programme (STTP) On “ROBOTICS, ARTIFICIAL INTELLIGENCE & CONTROL” : PHASE-II: 30/11/2020 to 05/12/2020

The Inaugural ceremony of the Phase II of AICTE sponsored Six days Short Term Training Programme(STTP) on the topic “**Robotics, Artificial intelligence and control**” was conducted on 30/11/2020. The welcome address was given by Dr. Deepa Elizabeth George, Head of the Department, Department of Electronics, Toc H Institute of Science and Technology, Arakkunnam, Kerala. Dr.Subir Kumar Saha, Professor, IIT Delhi inaugurated the session and delivered the inaugural address specifying the importance of Short term training programme and he also introduced a Team based Online Project activity (TOP) in the STTP to promote effective learning methodology among the participants. Dr. Preethi Thekkath, Principal, Toc H Institute of Science and Technology, Arakkunnam, Kerala felicitated on the auspicious occasion. Dr.S .Perumal Sankar, Professor, Department of Electronics, Toc H Institute of Science and Technology, Arakkunnam, Kerala also gave felicitations to this event. Dr.Vinu.R, Associate Professor, Department of Electronics, Toc H Institute of Science and Technology, Arakkunnam, Kerala presented vote of thanks and concluded the inauguration event.

Major experts in the field of Robotics and Control like Dr.S.K.Saha, IIT Delhi, Dr. PrahladVadekapat, NuS Singapore, Dr. Ashitva Ghoshal, IISc Bangalore, Dr.Shyamanta Hazarika, IIT Guwahati, Dr.Ramadoss, NIT Trichy, Dr.Rajesh Kannan MegalingamHuTLabs, Ms.Janani Mohan, Vecna Robotics, USA, Mr.Lentin Joseph, Qbotics Lab, Dr.JishaVR, Mr.Sunil Paul, Shristi Robotics were the prominent resource persons for the 6 days. Around 50 participants from various academic institutions and industry attended the session. The resource person made the session more interesting through multimedia presentation & the participants got ample opportunity to clarify their doubts regarding the topic in the Q & A session. The Six days long STTP Phase-I on “**Robotics, Artificial intelligence and control**” ended on 05/12/2020.

Session Schedule:

Day	Date	Time Slot	Topic	Resource Person	Affiliation
3	30 DEC 2020	10:00am - 11:00 noon	Overview of Recent Research in Robotics at IISc Robotics Lab	Dr. ASHITVA GHOSAL	Professor of Mechanical Engineering, IISc, Bangalore.
3	30 DEC 2020	1:00 - 3:00pm	Mobile Robotics with Matlab	Dr. JISHA VR	Associate Professor, Government Engineering College, Perumam.
4	31 DEC 2020	9:30 - 11:00am	AI in General	Dr. PRAHLAD VADAKKAPAT	Associate Professor, National University of Singapore.
4	31 DEC 2020	11:00 am - 12:40pm	Robot Medalling and Visualization using UR5R and ros	Dr. JYOTSNA BHASKAR	Associate Professor, Department of Electronics, Toc H Institute of Science and Technology, Kerala.
5	01 DEC 2020	11:00 - 1:30pm	Flying Robots- how to		
6	02 DEC 2020	9:30 - 11:00am	Robot in Industry		
6	02 DEC 2020	11:00 - 12:40pm	Programming Robot using ROS		

Screenshots



AICTE Sponsored Short Term Training Programme(STTP) on “ROBOTICS, ARTIFICIAL INTELLIGENCE & CONTROL” : PHASE-I: 02/11/2020 to 07/11/2020

The Inaugural ceremony of the Phase I of AICTE sponsored Six days Short Term Training Programme on the topic “**Robotics, Artificial intelligence and control**” was conducted through online Platform” Google Meet” on 2/11/2020. The welcome address was given by Dr. Deepa Elizabeth George, Head of the Department, Department of Electronics, Toc H Institute of Science and Technology, Arakkunnam, Kerala. Dr. Alex Mathew, President, Toc H Public School Society gave the presidential Address and Col.B. Venkat, Director, AICTE inaugurated the session and delivered the inaugural address specifying the importance of Short term training programme . Also Dr. K. Varghese, Founder, Director and Manager, Toc H Public School Society and Dr. PrahladVadekapat presented special address for the successful conduction of this STTP. Prof. P.J. Joseph, Director, Toc H Public school society presented an inciting address and our guest Dr.S.Raghavan, Professor(HAG), NIT Trichy felicitated the gatherings. Dr. Preethi Thekkath, Principal, Toc H Institute of Science and Technology, Arakkunnam, Kerala felicitated on the auspicious occasion. Dr.Vinu.R, Associate Professor, Department of Electronics, Toc H Institute of Science and Technology, Arakkunnam, Kerala presented vote of thanks and concluded the inauguration event.

Major experts in the field of Robotics and Control like Dr. PrahladVadekapat, NuS Singapore, Dr. Ashitva Ghoshal, IISc Bangalore, Dr.Shyamanta Hazarika, IIT Guwahati, Dr.Manoj B S , IIST Thiruvananthapuram, Dr.Rajesh Kannan MegalingamHuT Labs, Mr.Jayakrishnan, Asimov Robotics, Mr.Lentin Joseph, Qbotics Lab were the prominent resource persons for the 6 days. Around 100 participants from different academic institutions and industry attended the session. The resource person made the session more interesting through multimedia presentation & the participants got ample opportunity to clarify their doubts regarding the topic in the Q & A session. The Six days long STTP Phase-I on “**Robotics, Artificial intelligence and control**” ended on 07/11/2020.

Session Schedule:



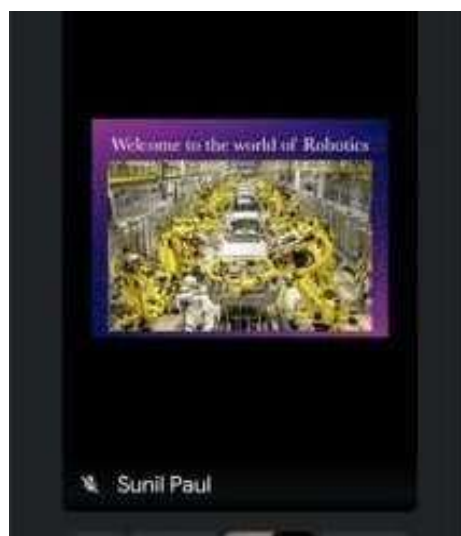
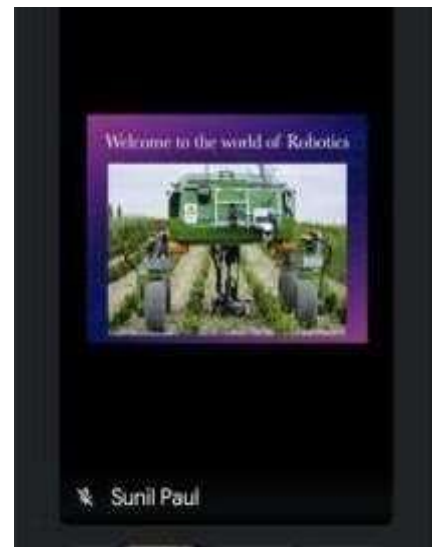
Screenshots



WEBINAR ON “KICK START YOUR PROJECT”

The webinar on “Kick Start your Project” which talks about *Robots and their role in Modern World* was organized by the Department of Electronics, TIST, on 26th September 2020, via Google meet. It was conducted by *Mr. Sunil Paul*, Co-Founder and CEO of *Srishti Robotics Pvt. Ltd.* The webinar was attended by the faculty members and the students of Electronics department. The session started with an introduction about Robots and their basic working. Then, he briefed about the different cost-efficient companies that manufactured robots and an explanation was also given on different types of Robots.

The facilitator further discussed about the projects undertaken by his company during the pandemic, like about the food carrying drone and a pedal operated sanitizer dispenser. Mr. Sunil's area of work goes beyond designing and manufacturing robots. He had trained students of various age groups for competitions held around the globe. Furthermore, the attendees were shown different components used to build a robot ,ranging from motors to boards. By the end of the meeting the students got a chance to put forth their queries which were diligently answered by the facilitator. Overall, the session had been interactive, informative and provided a positive impact.

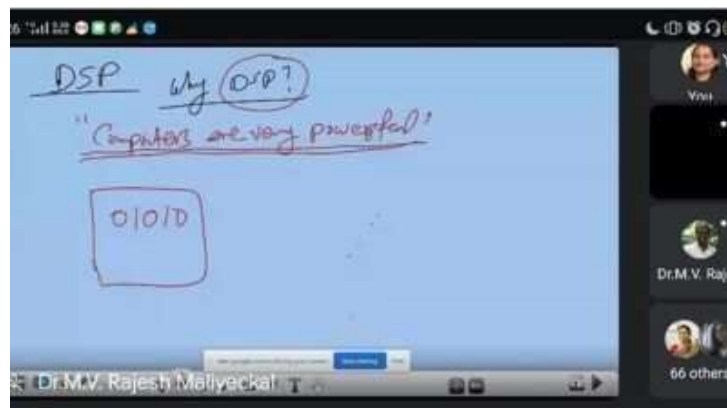


WEBINAR ON “DEMISTIFYING DSP”

Department Of Electronics ,organized a webinar on “Demystifying DSP”, on Saturday 19th of September, 2020. This event was conducted for students of both ECE and EEE. The resource person was Mr. M V Rajesh, Associate Professor in ECE, Department of Electronics Engineering, Model Engineering College, Thrikkakara, Ernakulam . The event commenced at

11:15 am. Our HOD Dr. Deepa Elizabeth George, welcomed the gathering. Students of ECE hosted the event.

The session was very informative and helpful for all students. Through this webinar, students were able to understand the concepts and misconceptions about the subject Digital Signal Processing. A new and broad view of the subject was opened to all the students. In this session, all the basic concepts of signals were discussed, like the difference between types of signal. This enabled the students to understand it thoroughly, thus making the subject DSP easy and interesting. During the interactive session, queries and clarifications were done. An active participation was visualized. The session was over by 12:30 pm.



AICTE Sponsored Short term training Programme(STTP) Phase III on “TRENDS AND TECHNOLOGIES IN ANTENNA DESIGN AND ITS RESEARCH SCOPES” : PHASE-III: 12/10/2020 to 17/10/2020

Department of Electronics, Toc H Institute of Science and Technology, Arakkunnam organized a **AICTE Sponsored 6 Days STTP on “Trends and Technologies in Antenna Design and its Research Scopes”-PHASE III from 12th October 2020 to 17th October 2020.** The training programme was intended to faculty members from AICTE approved Engineering colleges, research scholars, Industry persons and PG students. The main

objective of STTP was to train the participants about the knowledge on Antenna & Wireless Communication and explore the research scopes of Antenna in future telecommunication and scientific applications. 150 participants attended this STTP. World-renowned experts who have specialized in the field of Antenna Design handled the current, futuristic concepts and provide insight into the contemporary challenges. The resource persons were Dr. Sudhakar Rao, Northrop Grumman Space Systems, US, Dr.Sangeetha Velan Invicara India Pvt Ltd, Chennai. Mr. Chandra Gopal, Jyoti Electronics Bengaluru, Dr. Vamsi Krishna Velidi, ISRO, Dr.Mrinal Kanti Mandal , IIT Kharagpur, , Dr. M Lakshminarayana, DRDO, Prof. Dr.S.Suganthi, CHRIST university, Prof.Dr. Rabindra K. Mishra Berhampur University, Prof. Dr.S.Raghavan, Most Professor, Dept. Of ECE, NIT – Trichy, Dr Shiv Narayan, NAL. The valedictory session was conducted on 17th October at 3 PM. Chief guest Dr. Sudhakar Rao, Northrop Grumman Space Systems, US shared an unforgettable valuable speech at the end of the session.

Toc H INSTITUTE OF SCIENCE & TECHNOLOGY
TRENDS AND TECHNOLOGIES IN ANTENNA DESIGN AND ITS RESEARCH SCOPES
 AICTE Sponsored Six days Virtual STTP

PHASE III - SESSION SCHEDULE

DAY 1
 12TH OCTOBER 2020

DR. SUDHAKAR RAO
 DR. SANGEETHA VELAN

DAY 2
 13TH OCTOBER 2020

DR. VAMSI KRISHNA VELIDI
 DR. MRINAL KANTIMANDAL

DAY 3
 14TH OCTOBER 2020

DR. M LAKSHMINARAYANA
 PROF. DR. S. SUGANTHI

ORGANIZED BY DEPARTMENT OF ELECTRONICS
 A NAAC ACCREDITED INSTITUTE WITH NBA ACCREDITED UG PROGRAMS

AICTE Sponsored Six days Virtual STTP

PHASE III - SESSION SCHEDULE

DAY 4
 15TH OCTOBER 2020

PROF. DR. SHYAM SUNDARA PATTANAIK
 PROF. DR. RABINDRA K. MISHRA

DAY 5
 16TH OCTOBER 2020

MR. DICOREK KUMAR JANAPALA
 DR. BASUDEB GHOSH

DAY 6
 17TH OCTOBER 2020

PROF. DR. S. RAGHAVAN
 MR. JONES

SCREENSHOTS



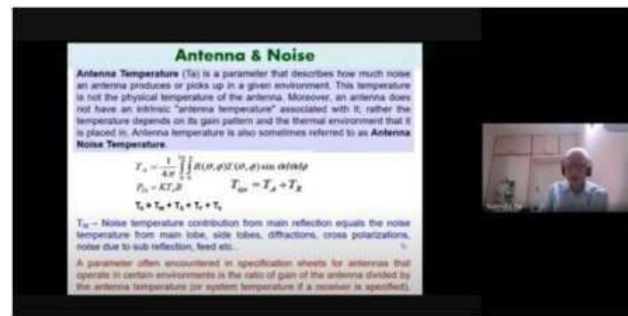
AICTE Sponsored Short term training Programme(STTP) Phase II on “TRENDS AND TECHNOLOGIES IN ANTENNA DESIGN AND ITS RESEARCH SCOPES” : PHASE-II: 14/09/2020 to 19/09/2020

The Six days long STTP Phase-II on Trends and Technologies in “Trends and Technologies of Antenna Design and its Research scopes” was inaugurated formally by Dr. Deepa Elizabeth George, HOD, Department of Electronics, TIST with a Welcome Address. Felicitations are given by Dr. K.Varghese , Founder Director and Manager, Toc H Public School Society and Dr. Alex Mathew, Toc H Public School Society . The overview of the STTP was given by Dr. S.Perumal Sankar , Department of Electronics ,TIST. The Sessions started on 14/9/2020 at 10.00 am, taken up by Dr. D.C.Pande, Director (Retd.), LRDE- DRDO, Bangalore, on “Radar Antennas”. Major experts in the field of Microwave and Antenna Engineering were the resource persons for the 6 days. At most 100 participants including teaching faculty of Eng. Colleges, researchers & PG students from academia and Engineers & Scientists from industry and R&D institutes were participated in the session. The participants utilized their opportunity to clarify their doubts and found the session very useful for them. Six days long STTP Phase-II on “Trends and Technologies of Antenna Design and its Research scopes” ended on 19/09/2020.

SESSION SCHEDULE



SCREENSHOTS



AICTE Sponsored Short term training Programme (STTP) Phase I on “TRENDS AND TECHNOLOGIES IN ANTENNA DESIGN AND ITS RESEARCH SCOPES”

AICTE sponsored Short Term Training Programme on the topic “Trends and Technologies in Antenna Design and its Research Scopes” was inaugurated by AICTE Director **Dr. Ramesh Unnikrishnan** on 10th August 2020 at 9.30 AM. Dr. Deepa Elizabeth George, HOD, Department of Electronics, TIST delivered the Welcome Address and felicitations were given by Dr. K.Varghese , Founder Director and Manager, Toc H Public School Society , Dr. Alex Mathew, President, Toc H Public School Society and Prof.(Dr.)Preethi Thekkath, Principal, Toc H Institute of Science & Technology .Inaugural session ended with vote of thanks by Prof. Dr.S.Perumal Sankar, STTP Co-Ordinator, Department of Electronics, TIST.

PHASE-I: 10/08/2020 to 16/08/2020

The first session of Six days long STTP Phase-I on “Trends and Technologies of Antenna Design and its Research scopes” was rightly started after the inaugural function with the lecture session by Dr. S. Raghavan, Senior Most Professor HAG (Retd) on “Microwave Integrated Circuit Theory”. He has about 40 years of teaching and research experience. His interest includes Microwave Integrated Circuits, RF MEMS, BioMEMS, Metamaterial and Microwave Engineering. A proud research scholar of Prof. Bharathi Bhat and Prof.SK Koul, CARE, IIT Delhi, has established state of the art Microwave Integrated Circuit and Microwave Laboratory in N.I.T., Trichy with the help of Govt. Of India funding.

Major experts in the field of Microwave and Antenna Engineering were the resource persons for the 6 days. More than 100 participants attended the sessions and acquired knowledge from the veterans in the field of RF Engineering. The participants utilized their opportunity to clarify their doubts and found the session very useful for them.

Six days long STTP Phase-I on “Trends and Technologies of Antenna Design and its Research scopes” ended on 16/08/2020.

SESSION SCHEDULE

I.No.	Day/Date	Time	Resource Person	Topic
1	Day 1: August 10, 2020	10 00 - 12 00 (IST)	Dr. S.Raghavan, Professor HAG (Retd) Department of Electronics and Communication Engineering, NIT Tiruchirappalli.	Microwave Integrated Circuit Theory
		13 30 - 15 30 (IST):	Dr. A. Prakasa Rao Associate Professor Department of ECE NIT Warangal	Optimization Techniques in Antenna Design and Convolutional Codes in Communications.
2	Day 2:	10 00 -	Dr.P.Mohanan	EM Theory made Easy

I.No.	Day/Date	Time	Resource Person	Topic
	August 11, 2020	12 00 (IST)	Emeritus Professor UGC-BSR Professor Department of Electronics Cochin University of Science and Technology	
		13 30 - 15 30 (IST)	Dr.A.Prakasa Rao Associate Professor Department of ECE NIT Warangal	Optimization Techniques in Antenna Design and Convolutional Codes in Communications.
3	Day 3: August 12, 2020	10 00 – 12 00 (IST)	Dr.D.C.Pande Director (Retd) LRDE-DRDO Bangalore.	Antenna Measurements
		13 30 - 15 30 (IST)	Prof. Rabindra K Mishra Samanta Chandra Sekhar Awardee, Professor Department of Electronic Sciences, Berhampur University, Odisha	Research trends in METASURFACE Antennas
4	Day 4: August 13, 2020	10 00 – 12 00 (IST)	Prof.V.Mahadevan Group Director Scientist(Retd.)ISRO PES University, Bangalore	Space Antenna Design Challenges
		13 30 - 15 30 (IST)	Dr.T.Shanmuganatham Associate Professor Department of Electronics Engineering Central University, Pondicherry	Wearable Antennas
5	Day 5: August 14, 2020	10 00 – 12 00 (IST)	Mr.Jones MU Maker Antenna Trichy	Design and Analysis of simple Microstrip Patch antenna and Metamaterial Antenna
		13 30 - 15 30 (IST)		Design and Analysis of Dielectric Resonator Antenna.(DRA)
6	Day 6: August 16, 2020	10 00 – 12 00	Dr.Bhadade Raghunath Subhanrao School of Electronics and	MIMO Antennas

I.No.	Day/Date	Time	Resource Person	Topic
		(IST)	Communicaion Engineering MIT-World Peace University Pune Maharastra	
		13 30 - 15 30 (IST)	Dr.A.Beno HOD Department of ECE Dr.SivanthiAditanar College of Engineering	RF Energy Harvesting and Radiation Hazards

SCREENSHOTS



WEBINAR ON “RECENT ADVANCES AND OPPORTUNITIES IN ENGINEERING”

Department of Electronics, Toc H Institute of Science and Technology, Arakkunnam Organized a Webinar for the Higher Secondary students on the topic “Recent advances and opportunities in Engineering” on 18th July, 2020. The Resource persons of the event was Mr.Nisanth Unikrishnan, Associate Technical Architect, Transportation Devision, SFO Technologies. He talked about the merits of choosing ECE branch and the demand of ECE Engineers in industry, etc. This webinar served as a platform for the school students to acquire knowledge and information about the various available job opportunities in electronics industry. A total of 125 participants from various schools attended and gained information from this session. here was question answer session at the end of the session and Nisanth answered all the queries asked by participants.



WEBINAR ON “CAREER OPPORTUNITIES FOR ENGINEERING ASPIRANTS”

Department of Electronics, Toc H Institute of Science and Technology, Arakkunnam Organized a Webinar for the Higher Secondary students on the topic “Career Opportunities for Engineering Aspirants” on 28th June, 2020 by the. The Resource persons of the event were Mr.Sajith Srambickal, Branch Manager, Pidilite Industries Limited and Mr.Rezwin Basheer, Key Account Manager, Google and Former IMS Mentor. This webinar served as a platform for the school students to acquire knowledge and information about the various available career options. This webinar helped them to explore the various career paths and helped them to choose the correct one. The session was very informative. 136 participants from various schools attended and gained information from this session.

WEBINAR ON “DISCOVER THE SCIENCE & TECHNOLOGY OF THE FUTURE”

Webinar on “Discover the Science & Technology of the Future” conducted on 20.6.2020 was hosted by Department of Electronics, Toc H Institute of Science and Technology. It was mainly intended for engineering aspirants willing to explore the tremendous opportunities in the field of future technologies. The informative session attended by 109 participants. The first session was handled by Ms. Athira Krishnan, System Engineer, Robotics & AI Team, Research and Innovation Lab, TCS. She created an awareness among the participants about career options in Robotics, Artificial intelligence, Industrial automation etc. The participants also got an ample opportunity to clarify their doubts about the new generation courses and its career opportunities. The second session taken by Mr. Vivek R, TIST Alumni (2011-2015 ECE Batch) now working as Business Development Manager, MathWorks India Ltd, mainly focused on the career options in the field of Electronics and Communication Engineering. He explained in detail about engineering careers like Research, Design and Development, Sales and Marketing, Manufacturing etc. He created awareness and also motivated the participants to select the better career option. It also helped the participants to explore solutions for the doubts being faced by them through the QA Session.



WEBINAR ON “FACING ENTRANCE EXAMS POST LOCKDOWN”

Department of Electronics, Toc H Institute of Science and Technology, Arakkunnam organized a Webinar on the topic “Facing Entrance Exams Post Lockdown” on 6th June, 2020 by the for the Twelfth Standard Students. The Resource people were Mr. JayaKumar A, Entrance Tutor based Thiruvananthapuram (having 27+ years experience in entrance coaching field) and Mr.Vivek R, Business Development Manager , Mathworks India. This webinar helped the school students to acquire knowledge and information about the entrance exam question patterns and the subject areas to which more thrust is to be given with respect to upcoming Engineering/Medical entrance examinations. The session also focused on various available career options in engineering field. This webinar served as a platform to clarify their doubts in the same regard and has instigated an open discussion regarding the emerging career opportunities round the world. The session emerged out to be very interesting and interactive. A total of 60 participants from various schools attended the session.