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# GLIMPSE

A Newsletter by Department of Electronics and Communication
Christ College of Engineering, Irinjalakuda

CHRIST COLLEGE OF ENGINEERING ecta

## VISION

To become pioneer in higher learning and research, and to produce creative solution to societal needs.

## MISSION

- To make students self-dependent and useful for the society
- To implement best teaching - learning practices by providing excellent facilities and quality education
- To mould character of every student by providing value-based education

## EDITORIAL BOARD



" Winners are not those who never fail but those who never quit "

-Dr. APJ Abdul Kalam

# HOD's Message

It's a moment of joy for the entire ECE department of Christ College of Engineering, Irinjalakuda as the Electronics and Communication Engineering Technocrats Association (ECTA) is bringing out its newsletter Glimpse . This newsletter is sure to set new standards in CCE and play a crucial role in urging the student community to explore their entire potential. I also hope that its diverse contents can cater to the insatiable quest for knowledge in the young minds. I extend my wholehearted support to this genuine effort made by the students and staff coordinators in bringing this out and wish it all the success so that more such endeavours are taken up in the future. I hope the newsletter will cover everything from day-to-day life at ECE to our work and accomplishments. I am sure the success stories portrayed through the letter would brighten our future.

Mr. Rajiv T R
( HOD, Dept. of ECE )

# SMART INDIA HACKATHON 2020


Project Bytenergizer won the first prize for a problem stated by ARAI in the Smart India Hackathon 2020 (conducted in online mode) and received a prize money of Rs.1 lakh. The team consisted of Albin Joseph C.R (S5 ECE), Eleena Sajan (S5 ECE), Krishnaprasad C (S5 ECE), Ann Treesa Benny (S7 ECE), I.S Sharath (S5 CSE) and Austin Anthony (S3 ECE).

This team was guided by Asst. Professor Rahul Manohar O. The team had developed a smart solution for 'Theft Detection in Two Wheelers' called 'Theftoff'. The solution was very useful in preventing fuel theft, ignition tampering, vehicle lifting, etc. It basically consists of two mobile applications: Theftoff (Installed in the user's phone) and Theftoff Companion (Installed in a phone kept inside the Vehicle). The hackathon lasted three days and the team got a good exposure to bright ideas and many innovative products by other engineers who participated in the event.

# LIGAROBOTIX

Kerala's largest Robotics Hackathon LIGAROBOTIX 2020 was held at Vidya Academy of Science and Technology, Thrissur. The first prize was secured by Krishnaprasad C and Albin Joseph C.R of ECE department, they built a Robot within 14 days that competed with other robots across different regions of the state.

# OZONISER

With the intention of providing technical solutions to society in the fight against Covid-19, a team of ECTA (Electronics and Communication Technocrats Association) members developed a device called Ozoniser which can disinfect and purify a closed environment. The team consisted of Asst. Professor Rahul Manohar O and Krishnaprasad C (S5 ECE), the product finds important applications in Hospitals, Homes, Banks, ATMs, Shops, Schools, Colleges, etc. This project received funding from the Centre of Advanced Technologies in Disaster Management, Cochin University of Science and Technology for further research and development.

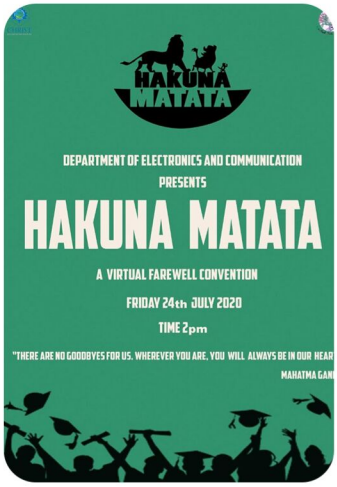
Scan using Google lens to watch video

# Floating Aid for Pumps


Malayala Manorama funded project team 'CORE' participated in the YUVA Mastermind contest organised by Malayala Manorama in partnership with Amal Jyothi College of Engineering, Kanjirappally and developed a product which provided a floating base for all types of centrifugal water pumps available today. The event was held on 17th and 18th of January'20 with the aim of empowering engineers to find smart solutions to many technical problems faced in the present world.

This inter-disciplinary team consisted of Emil Benny (S5 ECE) among other students. Under the guidance of Asst. Professor Rahul Manohar O and along with Technical Staff Mr. Sanal T M, this team developed the product with a reasonable cost and competed with more than 100 applications from all over Kerala. The key feature of the product is that it increases the efficiency of the water pumps since the electricity wastage decreases with the increase in distance from the water level. They received a funding of Rs. 8000/- for the project work and had a nice experience in cooperating with each other to come up with amazing solutions.

# HAKUNA MATATA - VIRTUAL FAREWELL CONVENTION




A virtual farewell ceremony "Hakuna Matata " was conducted for the outgoing students of the 2016-2020 batch by the Electronics and Communication department on 24th July 2020. The programme started at 2:00 pm and was held using the Google Meet platform. Honorable Executive Director - Rev. Fr. John Paliakara inaugurated the function. Joint Director - Fr. Joy Payyapilly, Principal - Dr. Sajeev John Sir, and Vice Principal - Dr. V. D. John Sir addressed the gathering with heart touching farewell felicitations. Students shared their experiences and the best memories they had in their college life. Several fun-based tasks were organized for the students which made the whole event interesting and entertaining. A video containing a glimpse of the good moments they had in the college along with the wishes of all the faculty members who taught them, was released during the programme as a tribute to the seniors by their loving juniors which added up emotions and nostalgia to everyone present there. Teachers also shared their heartfelt messages to their beloved batch and wished them a bright future ahead. Even though it was a virtual meeting, it gave the students and teachers a new experience of togetherness and happiness by giving them a day with memories to cherish forever.

"Education is the best friend. An educated person is respected everywhere. Education beats the beauty and the youth."

-Chanakya

# IN4NATION

Tom Paul (ECE) along with his friends Eniyo Sajan (ME) and Powell Thomas (ME) have developed a News reporting app called In4nation. Apart from reading latest news, this app also gives you an opportunity to be a part of something bigger. You could contribute to a cause by simply watching an ad. For doing more you could also send in your donations directly. In short, you could stay informed and involved at the same time.

Scan using Google lens to install the App

# 3D PRINTED REUSABLE FACE MASK


We all know the importance of wearing a mask during this pandemic. But some of us don't have the actual protective mask and seeing this problem Krishnan K.V of S7 ECE has come up with a great gadget. Using Computer-Aided Design (CAD), he designed a 3-D printed reusable mask made of Polyamide composite components with Velcros for fastening it around the head. The mask is inexpensive and can be easily modelled using a free CAD software and can be used for protection against harmful infections.

# Modified 16-bit Carry Select and Carry Bypass Adder Architecture for High Speed Operations

A project done by Mary Christina Joy (ECE), Ansa Jimmy (ECE) under the guidance of Asst. Professor Tony C Thomas (ECE) & Asst. Professor Manju I Kollannur has been accepted by IEEE International Conference for Innovation Technology and published in the IEEE Journal 2020. Adders are one of the most important blocks in an Arithmetic Logic Unit of a Processor. There are different adders with different propagation delay. In this paper, different 16-bit adders which presently exist are compared in terms of their delay. Based on this analysis, new Carry Bypass Adder and Carry Select Adder have been proposed to achieve less propagation delay.

Scan using Google lens to read the article

# Non-Invasive Glucose Monitoring and Insulin Injector System

Diabetic patients and their death rates are increasing every day. The traditional treatment involves insulin infusion technique using syringe and needle which is unpleasant and painful when continuous monitoring is necessary. This method of blood sugar measurement collects a drop of blood by pricking the finger tip and analyzes the result. This invasive method is inconvenient and costlier even though the continuous blood glucose monitoring is essential for the control and management of glucose level. Thus it was necessary to find a non-invasive real-time glucose monitoring system that is reliable and affordable. So team consisting of Anna Rose Johnson (ECE), Sandhya Satheesan (ECE) under the guidance of Asst. Professor Della Reasa Valiaveetil developed a non-invasive glucose monitoring system that detects the glucose level in the blood using NIR spectroscopy. According to the detected sugar level the amount of insulin injected can be controlled using an insulin pump. Insulin pumps are comparatively a better option as they are easy to use and comfortable. Here they proposed to modify the existing insulin pump to improve user experience. It is highly precise and accurate in delivering quantities of insulin irrespective of external environment. Hence this system is much more efficient and adaptable for diabetic patients.

## QUIZ TIME

1. When was India's first public electric vehicle launched?
(a) 1988 (b) 2002 (c) 1993 (d) 1999

2. Which was the first Indian Supercomputer that was benchmarked at the Zurich International Supercomputer Competition 1990?
(a) PARAM 8000 (b) PARAM 10000 (c) PARAM Siddhi AI (d) PARAM Yuva

3. Who is known as the father of Wireless Telecommunication?
(a) Heinrich Hertz (b) Guglielmo Marconi (c) James Clerk Maxwell (d) Jagadish Chandra Bose

4. Name the world's first commercial communications satellite launched.
(a) Sputnik 1 (b) Explorer 1 (c) Telstar 1 (d) Syncom 3

5. On Jan 6th 2021 which entrepreneur was declared as the world's richest billionaire by Forbes Real-Time Billionaires List?
(a) Jeff Bezos (b) Bernard Arnault (c) Elon Musk
(d) Warren Buffet

Answer: 1.(c) 2.(a) 3.(d) 4.(c) 5.(c)

# DEPARTMENTAL PLACEMENTS (ECE)

## TCS

Fiona Marokkey Davis

Tom Paul

Anand Sangameswaran

Ansa Jimmy

## Amazon

Aleena V L

Dijo Jose Padamadan

## Radel Electronics

Delvin Davis Paramel

Seena Jose

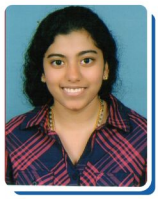
## Quest Global

Sreelakshmi Raveendran

## Hexaware

Anjalina Martin

## Mitsogo



Mary Christina Joy

## UST Global

Neenu Rose Francis

Akhil M U

Angel Mariya K V

## IISc

Athul Parameswaran

## Disney

Shine Tharakan

## IOT Spreads

Anna Rose Johnson

Joemol Jose V

C J Joseph

## CTS

Ivin Varghese

## Gadgeon

Jeason Paul