

KiTE
Explorer
A WEEKLY E-MAGAZINE

Inside This Issue.....

- **Placement & Intern**
- **Interaction with School students**
- **Placement Initiatives**

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Editor-in-Chief

Dr.V.Vijaya Chamundeeswari, Principal, KiTE &
Dr.S.Suresh Kumar, Vice Principal, KiTE

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Editorial Team

Ms.Sruthi Mol P, Asst. Prof – IT, Ms.A.Suganthi, Asst. Prof-CSE
SSA Team & Ms. Kanchana Menon- Digital Marketing

Placement & Internship



Mr. Rahul Prabhu P of IV CSE B got placed with Coda Global (PRESIDIO) with the CTC of 6.1 LPA.

Mr. K. Bhuvanewaar, final year student of Mechanical Engineering Department is undergoing an Internship in the field of Design and Drafting with THE CADD LEADERS, Technovation Group of Companies, Coimbatore from 18.01.2021 to 17.04.2021.



School Visit



Topics Covered:

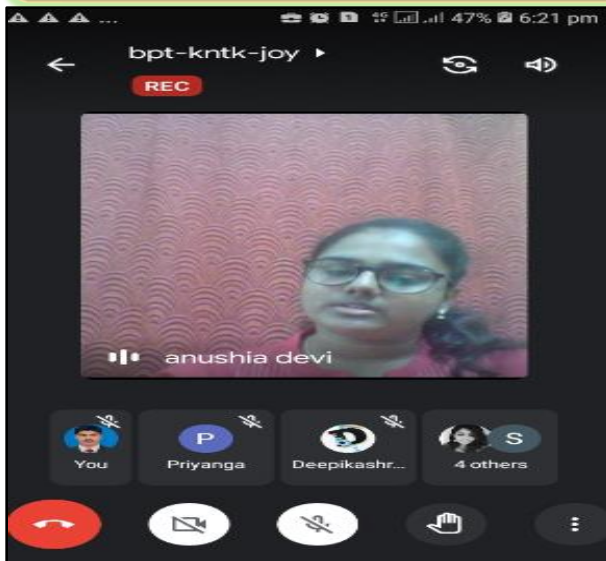
1. Python Basics
2. MIT App Inventor
3. LCT Problem Statements explained

Mr. Sathish M & Mr. Rajan R, Assistant Professors, Department of Computer Science and Engineering visited Government Higher Secondary School in Theni and delivered a seminar on some topics Their effort was priceless. Prof. Srikanth J, Head of the Department, addressed the students via video conference.





Placement Activities



Placement Training programme was organized by **Mr.K.Siva Prakash AP /ECE** (Placement coordinator) on 18.1.2021 **Ms.Anushiadevi.K** Analyst, Ugam solutions motivated the students and gave an elaborate talk about the detailed procedure of Interview Process.

*The Department of Information Technology conducted an event as a placement initiative under the banner **PIT STOP** on 23.01.2021. The webinar was very informative and useful for the students to obtain a successful career.*



KGISL INSTITUTE OF TECHNOLOGY
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DEPARTMENT OF INFORMATION TECHNOLOGY
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PIT STOP - A PLACEMENT INITIATIVE
TALK BY



Mr.SACHIN SWAMINATHAN
Handling project management and customer success
EnCloudEn, Bangalore



Mr.PAVITHARAN M
IT and Administration
Om Muruga Enterprises, Coimbatore

 23-01-2021
  10.30 AM

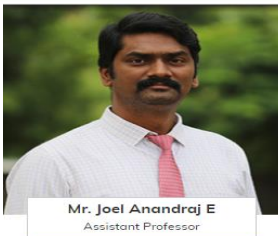
 LINK : <http://bit.ly/PLACEMENT-TALK>

Association Activity



The Department of Information Technology conducted the election for the Office Bearers for the department association on 20.01.2021. Ms. Sruthi Mol along with her team conducted the election for the post of President, Vice President, Secretary, Treasurer and the Event Coordinator had been conducted.

Webinar



Mr. Joel Anandraj E
Assistant Professor

The Department of Information Technology conducted a webinar on “Cyber Security and its Threats” which was organized by Mr. Joel Anandraj E, Assistant Professor. The webinar was a brainstorming session. A lot of threats faced in the cyber space was discussed. It created a vast awareness about the field.



KGiSL Institute of Technology
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Department of Information Technology
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Webinar on Cybersecurity and its Threats



Mr. Scott E. Augenbaum
Retired FBI Cyber Division Supervisory Special Agent

19-01-2021 9:30 AM Meeting Link: <http://bit.ly/CYBERTALK-with-SCOTT>

Join us and know about Cyber crime, Cybersecurity, career opportunities and things related to Cyber space from an International speaker.



KGiSL Institute of Technology
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365, KGiSL Campus, Thudiyalur Road, Saravanampatti, Coimbatore-641035.

Department of Electronics and Communication Engineering
organizes

Two Days Webinar Series on Wireless Sensor Networks



Dr. R. Sudarmani
Associate Professor,
Department of ECE,
School of Engineering,
Anna University,
Coimbatore

Date : 19.01.2021 & 20.01.2021
Time : 10.00 am to 11.30 am



Dr. C. Ramkumar,
Assistant Professor,
Department of ECE,
Dr.NGP Institute of Technology,
Coimbatore

Day 1
Wireless Sensor Networks & its Applications by **Dr.R.Sudarmani**

Day 2
Recent Advancement for Smart Community through WSN by **Dr. C. Ramkumar**

Convener
Dr S Suresh Kumar, Prof & Head - ECE

Coordinators
Ms.S.Anitha, Assistant Professor, ECE
Ms.K.P.Shanmuga Priya, Assistant Professor, ECE



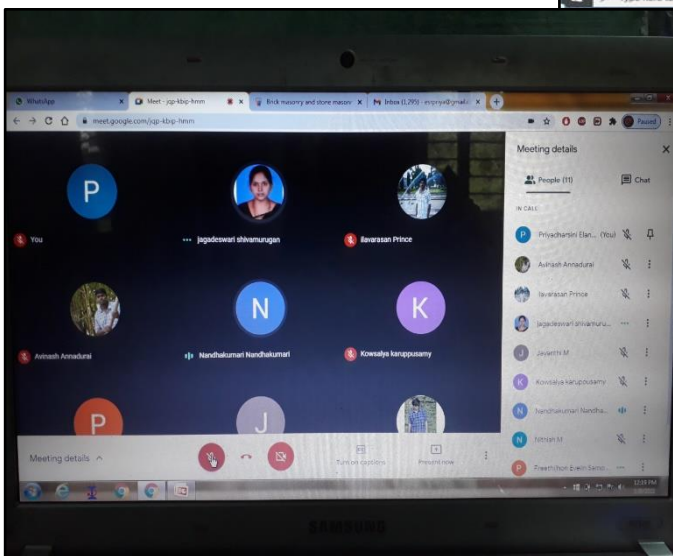
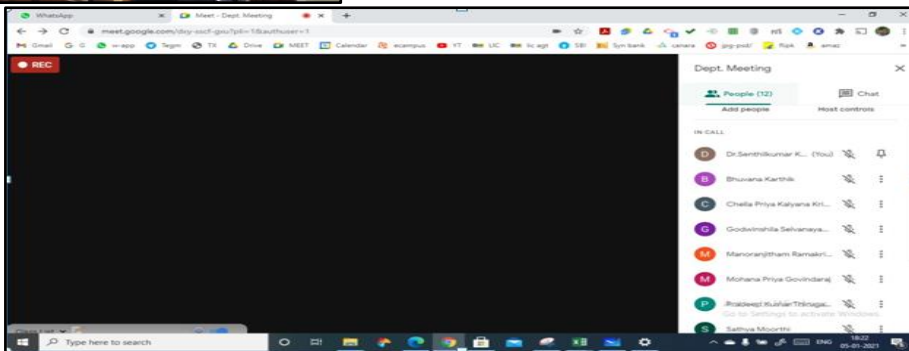
Mrs.S.Anitha and Mrs.K.P.Shanmugapriya ,Dept of ECE organized a two-day webinar titled “Wireless Sensor Networks” on 19.01.2021 & 20.01.2021 through Google meet, presented by Dr.R.Sudarmani & Dr.C.Ramkumar, Coimbatore.

Meetings & Discussions



Department Faculty Meeting was conducted by the Head of the Department Prof. C. Narayanaswamy on 18.01.2021 at 3.30 p.m. for discussing various activities such as Review of the meeting on 11.01.2021, E-Magazine, Updation of Faculty personal file, Lab maintenance report for the month of Jan 2021, Activities as per MOU, AQIS proposal, Updating Quality objectives, Updating Activity status report, Admission related activities, Placement oriented programme, TOYCATHON 2021 and other Academic activities.

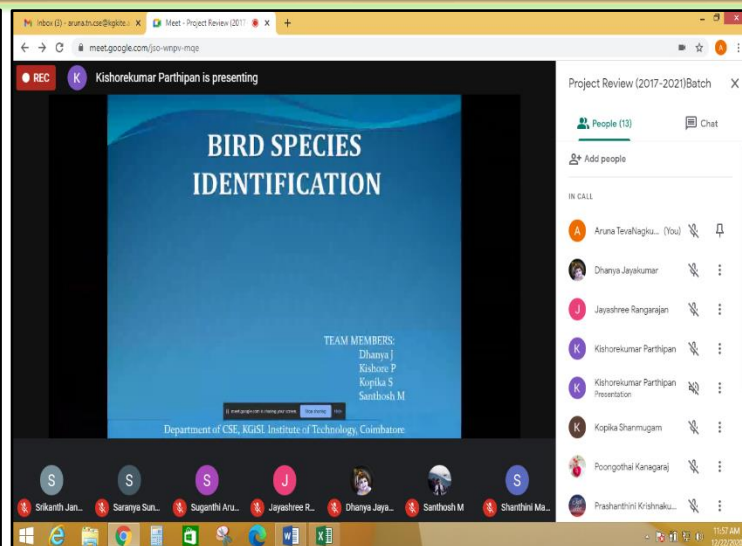
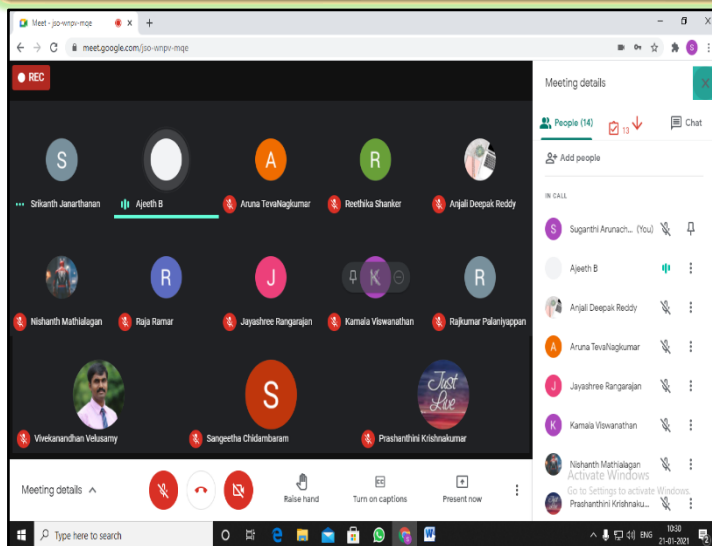
S& H Department Meeting was held on 18.01.2021 at 4.30pm. In the meeting, 1st graduate details to be updated, students name updating in E-Campus and Students can collect their books from 27th-30th January.



Civil Department faculty and students meeting was held on 21.01.2021 in Google meet at 11.30a.m. In the meeting, Fee defaulters list, Online class attendance and action to be taken for regular absentees, Updating students mail id and phonenumber in Anna University webportal, Overall department activities, Syllabus completion, upcoming online university examination and preparation like revision, materials collection and etc.,

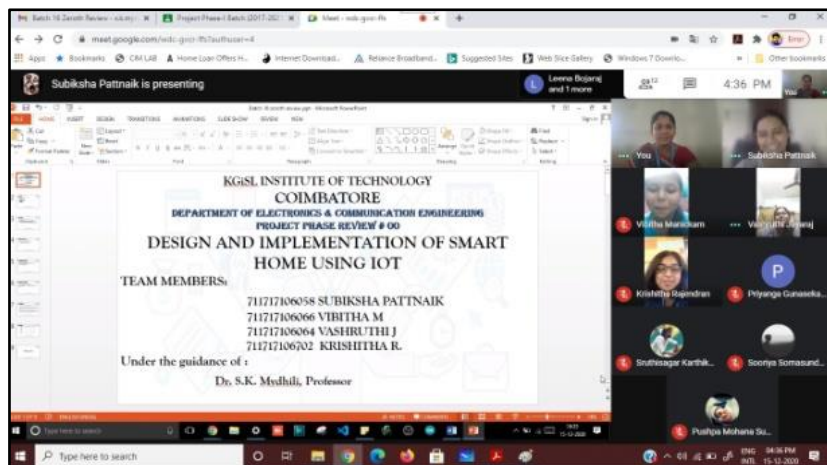
The Department of Information Technology conducted a meeting on 20.01.2021 with the faculties. In the meeting, Academics, Conducting Examination for the higher semesters, About the students' activities and their participation and Revision classes and coaching for the students.

Project Reviews



Final year project, first review was conducted for the students from final year CSE A & B section between 21.01.2021, 22.01.2021 and 23.01.2021 in presence of Head of the Department, final year project coordinator, and the department faculty members. This review was conducted to assess the percentage of project modules completion.

Project Review was conducted for the final year students on 22.01.2021 under the supervision of the project coordinator Dr.S.K.Mydhili through online mode from 11.30 p.m. to 3 p.m.



Journal Reviewer



Ms.SruthiMol P has reviewed an article from Scopus Index article ID 20M-12-1375 with title 'Rethinking Blockchain for Access Control in the Internet of Things of Special Issue for Advances in Science, Technology and Engineering Systems Journal'.



Research Publication



Dr.P Vignesh Kumar, Head of the Department of Science and Humanities of KGiSL Institute of Technology, has participated in the webinar on “A Comparative study of the effects of EDTA and citric acid on soil enzyme activities and growth performances of *Talinum triangulare*”

A comparative study of the effects of EDTA and citric acid on soil enzyme activities and growth performances of *Talinum triangulare*

Subha Priya Venkateswaran¹ - Vignesh Kumar Palaniyandy² - P. Rajiv³

¹ Department of Biotechnology, Rathasalai Subramanian College of Arts and Science, Subar, Coimbatore, Tamil Nadu, India
² Department of Science and Humanities, KGiSL Institute of Technology, Saravanampatti, Coimbatore, Tamil Nadu, India
³ Department of Biotechnology, Karapagam Academy of Higher Education, Eechanur, Coimbatore, Tamil Nadu, India

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Abstract Ethylene diamine tetraacetic acid (EDTA) and citric acid are two different chelants that have been used in several studies to enhance the phytoremediation process. Though numerous reports are available to prove the efficacy of these chelants toward enhancing the metal uptake and translocation, there are very few studies focusing on the minimization of hazards posed by the chelants. EDTA is an effective synthetic chelant that aids phytoremediation, whereas citric acid, an organic chelant, poses minimum level of toxicity to the soil. Application of a single chelant may be effective for pollutant removal but poses toxic symptoms on the soil as well as plants at higher concentrations. Nevertheless, a combination of two different chelants may prove to be effective both in terms of pollutant removal and safety. This may be attributed to the alleviating effect of one chelant over the other, which needs further investigation. The number of reports on the combined treatment of chelants, their overall effects on plant growth and soil enzymes are also limited. The present study was conducted to evaluate the individual as well as the combined effects of EDTA and citric acid on the soil enzyme activities and plant growth parameters on *Talinum triangulare*. The soil was treated with chelants, and plants were grown over this soil for 50 days. Growth parameters such as leaf count, shoot length, root length and girth were analyzed. The activity of these soil enzymes—amylase, invertase and cellulase—was examined. The study revealed the toxicity of chelants themselves when used in excess. Though it was found that 250 mg kg⁻¹ concentration of EDTA has the best performance in terms of plant growth, it has been noticed that plant growth and soil enzymes were

least affected at 500 mg kg⁻¹ concentration of mixed chelants.

Keywords *T. triangulare* · Chelants · EDTA · Citric acid · Soil enzymes

1 Introduction

In heavily industrialized areas, numerous soil sites are contaminated with high concentrations of heavy metals, which affect normal agricultural practices (Chen et al. 2003). Heavy metals accumulations in the soil represent a serious threat to the ecosystem and human health. So it requires the implementation of appropriate remedial methods. Remediation of the polluted soil can reduce the contamination and preserve soil which is a non-renewable natural resource (Qiu et al. 2011). Generally, the bioavailability of metal contaminants is low and this limits the phytoremediation process. The low biomass and slow growth of known hyperaccumulators are also one of the limiting factors. To overcome these problems, chelant-assisted phytoremediation has been proposed as an alternative (Wang et al. 2012; Evangelou et al. 2007). To improve the metal accumulation capacities and the uptake speed of non-hyperaccumulating plants, the incorporation of chelating agents to polluted soil has been proposed (Evangelou et al. 2007).

Chelating agents such as EDTA and citric acid have been used as viable chelants in environmental technology for mobilizing metals like lead (Chen et al. 2003). The most commonly used extracting agent is ethylene diamine tetraacetic acid (EDTA). It is expensive and toxic and also presents a low level of biodegradability in soil. Citric acid

Subha Priya Venkateswaran
subhavyenka@gmail.com

Springer



Prof. C. Narayanaswamy, the Head of the Mechanical Engineering Department has presented a Paper titled “Measuring of Cutting Forces in Lathe” in the First International Conference on Engineering, Science and Technology (ICEST - Online) on 09.10.2021 and 10.01.2021

Faculty Participation

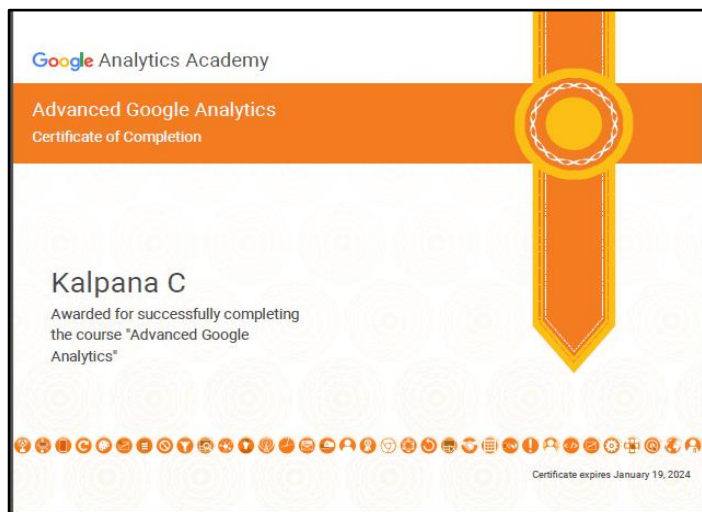


Dr.M.Arun, Associate Professor, Dept. of ECE successfully completed an online course on “How to Prepare your manuscript” in Researcher Academy , on 23.01.2021.



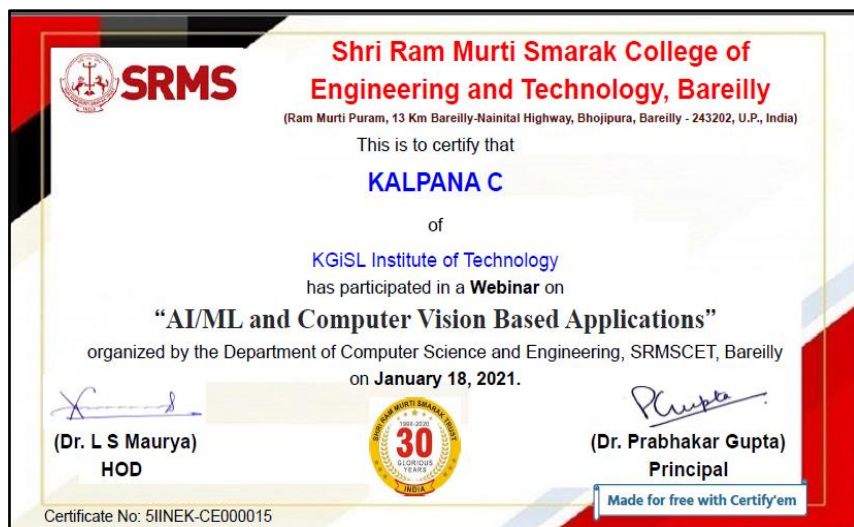


Mr.R.Raja, Assistant Professor, Department of Computer Science and Engineering successfully completed online course module on "Funding Hacks for Researchers", provided by Elsevier Researcher Academy on 23.01.2021.



Ms.Kalpana C successfully completed a course on "Advanced Google Analytics" on 20.01.2021 from Google Analytics Academy.

Ms.SruthiMol P successfully completed a course on "Google Analytics for Beginners" on 18.01.2021 from Google Analytics Academy



Ms.Kalpana C participated in a webinar on "AI/ML and Computer Vision Based Applications" organized by the Department of Computer Science and Engineering, SRMSCET, Bareilly on 18.01.2021



Mr. R.Suresh Kumar, Assistant Professor, Department of Computer Science and Engineering participated in AICTE Training and Learning (ATAL) Academy Online Faculty Development Programme on “Robotic Process Automation: Tools and Techniques” organized by Sri Venkateswara College of Engineering from 04.01.2021 to 08.01.2021



Mrs.K.P.Shanmugapriya, Assistant Professor, Dept. of ECE, completed an AICTE sponsored, online Six day Short term training Programme on “ Artificial Intelligence and Deep Learning for Computational Biology” from 04.01.2021 to 09.01.2021 organized by PSNA College of Engineering & Technology



Prof. C. Narayanaswamy, the Head of the Mechanical Engineering Department participated in a Webinar on “Applications of Nano Technology in Drug Delivery” presented by Dr. Rupali Sharma in First International Conference on Engineering, Science and Technology (ICEST - Online) on 09.01.2021.





Prof. C. Narayanaswamy, the Head of the Mechanical Engineering Department participated in a Webinar on “Steps Towards Sustainable Development of Environment” presented by Dr. Saras in First International Conference on Engineering, Science and Technology (ICEST - Online) on 10.01.2021 and also he participated in a Webinar on “Art of Writing Research Proposal and Report Writing” presented by Dr. Savita Mishra in First International Conference on Engineering, Science and Technology (ICEST - Online) on 10.01.2021.

Prof. C. Narayanaswamy, the Head of the Mechanical Engineering Department participated in the IEI Technical Webinar on the theme “Prospects of Artificial Intelligence Applications in Mining Industry” organized by Jharkhand State of Centre of The Institution of Engineers (India) under the aegis of Mining Engineering Division on 17.01.2021 and participated in a Webinar on the theme “A Sustainable, Resilient Recovery after COVID-19 using Solar Technology towards the Improvement of Rural Livelihood” organized by The Institution of Engineers (India), Coimbatore Local Centre in association with Department of Electronics and Communication Engineering, Hindusthan College of Technology, Coimbatore on 18.01.2021 and participated in a Webinar on “Salt Free Reactive Dyeing” organized by The Institution of Engineers (India), Coimbatore Local Centre in association with Department of Textile Technology, Kumaraguru College of Technology, Coimbatore on 22.01.2021



Mr. K. Venkataraman, Associate Professor of Mechanical Engineering Department attended a webinar on “Cast Iron Foundry and Its Applications” organized the Departments of Mechanical and Automobile Engineering, Arasu Engineering College, Kumbakonam on 22.01.2021 through online pedagogy.





Mr. T. A. Arun, Assistant Professor of Mechanical Engineering Department attended a webinar on "Cast Iron Foundry and Its Applications" organized the Departments of Mechanical and Automobile Engineering, Arasu Engineering College, Kumbakonam on 22.01.2021 through online pedagogy.



Mr. J. Kaleeswaran, Assistant Professor of Mechanical Engineering Department attended a webinar on "Cast Iron Foundry and Its Applications" organized the Departments of Mechanical and Automobile Engineering, Arasu Engineering College, Kumbakonam on 22.01.2021 through online pedagogy.



Mr. S. Premkumar, Assistant Professor of Mechanical Engineering Department attended a webinar on "Cast Iron Foundry and Its Applications" organized the Departments of Mechanical and Automobile Engineering, Arasu Engineering College, Kumbakonam on 22.01.2021 through online pedagogy.



Mr. V. Chandra Bose, Assistant Professor of Mechanical Engineering Department attended a webinar on "Cast Iron Foundry and Its Applications" organized the Departments of Mechanical and Automobile Engineering, Arasu Engineering College, Kumbakonam on 22.01.2021 through online pedagogy.





Mr. Stalin Durai, Assistant Professor of Mechanical Engineering Department attended a Webinar on “Digital Tools to Develop Communication Skills” by Dr. V. Rajasekaran, Assistant Professor in English, VIT University, Chennai organized by the Department of English, Arasu Engineering College, Kumbakonam on 22.01.2021.



Mr. T. A. Arun, Assistant Professor of Mechanical Engineering Department attended a Webinar on “Digital Tools to Develop Communication Skills” by Dr. V. Rajasekaran, Assistant Professor in English, VIT University, Chennai organized by the Department of English, Arasu Engineering College, Kumbakonam on 22.01.2021.



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Mrs. Mohanapriya G, Assistant Professor, Department of Science & Humanities of KGISL Institute of Technology participated in the Webinar on “Mathematics Education in National Education Policy 2020” on 19th January 2021, conducted by the Department of Mathematics, Coimbatore Institute of Technology, Coimbatore and also she participated in the “International Virtual Conference on Recent Development in Computational Mathematics (ICCM-21)” on January 11, 2021, organised by Department of Mathematics, Rathinam College of Arts & Science.

Mrs. Mohanapriya G, Assistant Professor also participated in the “International Conference on Applied Mathematical Models (ICAMM 2021) - Online” organized by Department of Mathematics, PSG college of Technology, Coimbatore, India during January 7-9, 2021.



Dr. K. Senthilkumar, Associate Professor, participated in the “International Conference on Applied Mathematical Models (ICAMM 2021) - Online” organized by Department of Mathematics, PSG college of Technology, Coimbatore, India during January 7-9, 2021.

Student's Corner

Mr.Sagar K of III CSE B has successfully completed a course on “Fundamentals of HTML & CSS” on 17.01.2021.



*Art by
Ms.Suveksha
A of II CSE B*

Info Corner



Dr.Rajkumar P, Professor, Department of Computer Science and Engineering has shared few points on the Technical topic “BLE (Bluetooth Low Energy)”.

What is BLE?

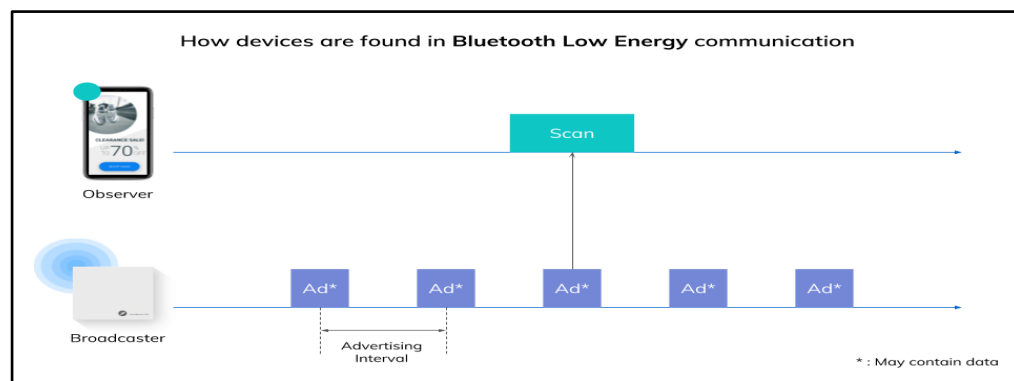
*BLE stands for **Bluetooth Low Energy** (Bluetooth LE, and marketed as Bluetooth Smart).*

Bluetooth Low Energy is a form of wireless communication designed especially for short-range communication. BLE is very similar to Wi-Fi in the sense that it allows devices to communicate with each other. However, BLE is meant for situations where battery life is preferred over high data transfer speeds. For example, say you want to broadcast marketing campaigns in the close proximity of a newly launched headphone. The amount of data you need to transfer to a visitor's smart phone is extremely small; hence Bluetooth LE compatible beacons do the job quickly without draining the battery.

Most smart phones and tablets today are BLE compatible, which means they can seamlessly communicate with Bluetooth enabled wireless headphones, digital signage, car stereos, fitness trackers, smart watches and hardware devices like beacons.

How does BLE technology work?

BLE data transfer is essentially one-way communication. Let's take an example of BLE beacons trying to communicate with a smart phone in close proximity – a Bluetooth Low Energy beacon device broadcasts packets of data at regular intervals of time. These data packets are detected by app/pre-installed services on smart phones nearby. This BLE communication triggers actions such as, pushing a message or promoting an app.



To save energy and provide higher data transfer speed, the entire Bluetooth BLE communication framework consists of 40 frequency channels, separated by 2MHz. 3 of these channels are the primary advertisement channels while the remaining 37 channels are secondary channels, also known as data channels. The Bluetooth communication starts with the 3 primary advertisement channels and then offloads to the secondary channels.

What devices support Bluetooth LE? Which Android phones support BLE?

Most smart phones and tablets built since 2012 support low energy Bluetooth (BLE). However, since Android phones vary widely, some models might support BLE, while others support an older version of Bluetooth. The table below summarizes which iOS devices have BLE.

Device	Models with BLE support
<i>iPhone</i>	<i>iPhone 4 and newer</i>
<i>iPad</i>	<i>iPad 3rd generation and newer iPad mini and newer</i>
<i>iPod touch</i>	<i>iPod touch 5th generation and newer</i>
<i>Android phones and tablets</i>	<i>All Android phones with Android 4.3 and newer</i>

Bluetooth classic vs Bluetooth Low Energy

What is Bluetooth? How is Bluetooth Low Energy (BLE) different?

There are two major technologies within the Bluetooth core specification – Bluetooth classic and Bluetooth Smart (Bluetooth Low Energy). The major difference between the two beacon technologies lies in the power consumption in each case. However, there are other factors why Bluetooth Smart is being pulled in for interesting technology applications.

1. Power consumption

This is what makes BLE so special! Businesses can use just four batteries to power Bluetooth low energy beacon devices for several months or years. However, for classic Bluetooth, given higher data throughput, its power consumption can be really high.

2. Applications

Classic Bluetooth is great for applications that require continuous streaming of data, for example, headphones. However, Bluetooth LE is suited for applications that work well with a periodic transfer of data, and hence reduces a significant amount of battery usage. This makes BLE suitable for IoT and proximity marketing-related applications.

3. Simultaneous connections

BLE can establish up to 20 connections simultaneously. It supports more simultaneous connections because it transfers small data packets and establishes quick connections. Classic Bluetooth on the hand can initiate only 7 simultaneous connections.

Here's a table to compare the capabilities of classic Bluetooth vs Bluetooth Low Energy

	Bluetooth Classic	Bluetooth Low Energy (BLE)
<i>Data Transfer Rate</i>	<i>2-3 Mbps</i>	<i>200 Kbps</i>
<i>Time to send data</i>	<i>Typically 100ms</i>	<i>Typically 3ms</i>
<i>Power consumption</i>	<i>Approx. 30mA</i>	<i>Less than 15mA</i>
<i>Applications suited for</i>	<i>Use-cases that need continuous streaming of data, such as headphones</i>	<i>Use-cases that do not require continuous streaming of data, such as proximity marketing campaigns.</i>

*Thank
you* 