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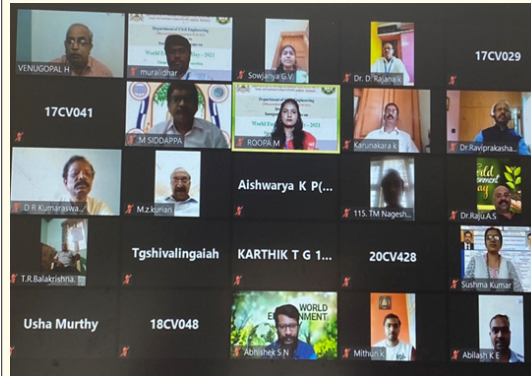
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“World Environmental Day”



The world environmental day celebration organized by Dept. of Civil Engg, SSIT, Tumakur on 5th June 2021 with a theme “Ecosystem Restoration”. The online programme started at 12.30 pm with invocation from Miss. Meghana, 6thsem Civil, Dr. T V Mallesh, Prof & Head, gave welcome address and brief report on world environmental day. The programme inaugurated, taking oath by all present in the programme along with the pronouncement of pledge by Dr. H Venugopal, Prof., and Dean (SA) SSIT, on Environmental attributes and their consciousness and awareness in maintaining healthy environment. Dr. N Murulidhara convener of the programme introduced the guest to the gathering. **Dr. R Kumar Swamy**, Former Member secretary & chief environmental officer, KSPCB, the key note speaker highlighted and stressed the theme of 2021 “ECOSYSTEM RESTORATION”. He also stressed on the importance of environmental laws, green belt, environmental cycles along with instances, how environment getting polluted by human and industrial activities

and how to control it to maintain the cleaner environment. He explained about the importance of rivers and lakes rejuvenation and importance of ecosystem. Dr. M Z Kurian, Registrar SSAHE recalled his school days and the environmental status during those days. Dr. M Siddappa, Dean (Academics) also pointed out the effects of imbalance in the ecosystem and their impact on the environment. Dr. K Karunakara, Dean (Evaluation) also Summarized the overall importance and need of world environmental day celebrations. Dr. M S Ravi Prakasha, Principal, SSIT, in his presidential address briefed about the contents shared by the speaker and its importance, he also urged about the need of spreading awareness among the common



people. Dr. D Raja Naik, Co-ordinator of the programme gave vote of thanks. Mrs. M Roopa did Master of Ceremony. Totally 110 participants have participated in the programme and made the programme very successful one.

“LET’S NURTURE THE NATURE SO THAT WE CAN HAVE A BETTER FUTURE”

Editor’s Message

- * Covid-19 vaccination drive was successfully held at SSIT campus in association with Tumkur Taluk Health office, District Health and Family Welfare Dept, GoK, NSS and NCC. Nearly 1000 staff, students and locals took the vaccine till date.
- * RT-PCR test was conducted for nearly 250 staff and students.
- * Mrs. Shyla M.K Asst professor, Dept of ECE was awarded Ph.D under the guidance of Dr. K.B. Shivakumar, Prof and HoD, ETCE Dept.

Department of Electronics and Communication Engineering

1. Dr. Chidananda Murthy, Assistant Professor, Department of Electronics and Communication Engineering, participated in one-day webinar on “Robot Process Automation using UiPath” held on 3rd June 2021, organised by Department of Electronics and Communication Engineering at Brindavan College of Engineering, Bangalore.
2. Dr. Chidananda Murthy, Assistant Professor, Department of Electronics and Communication Engineering, reviewer for IEEE International Conference on “Mobile Networks and Wireless Communication (ICMNBC-2021)” to be held on 03 to 04 December 2021 at Sri Siddhartha Institute of Technology, Tumakuru.
3. Dr. Chidananda Murthy, Assistant Professor, Department of Electronics and Communication Engineering, reviewer for “IEEE Mysore Sub Section International Conference (MysuruCon-2021)” to be held on 24-25 October 2021 at NAVKIS College of Engineering, Hassan organised by IEEE Mysore Sub Section.
4. Dr. Chidananda Murthy, Assistant Professor, Department of Electronics and Communication Engineering, Editorial committee member of “International Journal of Advanced Scientific Innovation (IJASI)”.
5. Dr. Chidananda Murthy, Assistant Professor and Dr. M N Kurian, HOD of Department of Electronics and Communication Engineering, published a paper with title “Social Distancing Monitoring for Covid-19 with Person Detection and Tracking” in 3rd International Conference on Recent Trends on Science and Technology (ICRTST 2021) organised by Maa Shakumbari Trust, Greater Noida, UP on 19th and 20th June 2021.
6. Dr. Chidananda Murthy, Assistant Professor, Department of Electronics and Communication Engineering, Technical program committee member of the 3rd International conference on “Applied Photonics and Electronics 2021(In-CAPE 2021)” in Kampus Pauh Putra, Malaysia on 6th and 7th October 2021.

Research Activity



Dr. Shyla M.K, Assistant Professor, Department of Electronics and Communication Engineering, Sri Siddhartha Institute of Technology awarded the Degree of Doctor of Philosophy on the thesis titled “Image steganography approach for secure data communication”, under the guidance of Dr. K B Shiva Kumar, Professor and Head, Department of Telecommunication Engineering, Sri Siddhartha Institute of Technology, Tumakuru.



Gas safety operation (INDIA)



Faculties of Department Electronics and Communication Engineering attended demonstration of “Gas safety operation (INDIA)” on 23rd June 2021 by Mr. B R. Subramanya, Marketing Manager is conducting awareness programs on use of LPGs and how to be secure and avoid LPD accidents and Disasters. This awareness program conducted by GAS SAFE(INDIA) is a part of their social responsibilities.



Online Certificate Courses (National and International Webinars)

1. One day National E-Conference on “The COVID-19 Pandemic’s Impact on the Environment-(CPIE-2021)” Collaboratively organized by the department of Zoology and Chemistry of Kal.Rasika Mahavidyalaya Deoni dist Latur,Aurangabad,India.on 05-06-2021.
2. One day National level webinar on “Research Report Writing using LATEX” organized by department of computer science in association with research committee. mLAC, Bengaluru.12-06-2021.
3. Kamla Nehru Mahavidyalaya, Nagpur, Three days National Online FDP, on ICT tools for effective Teaching Learning organized by IQAC, from 08-06-2021 to 10-06-2021.Certificate no: N9AWEQ-CE001196.
4. One day National level webinar on “Essentials of Intellectual Property Rights presented by Dr.A.Balaji Ganesh,Dean Research,VCE,Chennai. Organised by SRM TRP Engineering College,Trichy,on 07-06-2021
5. Two days ‘National level webinar on ‘Research funding projects & IPR (Part II)’ organized by R&D Cell, IQAC, and Department of EXTC,Computers &IT from 07-06-2021 to 09-06-2021.

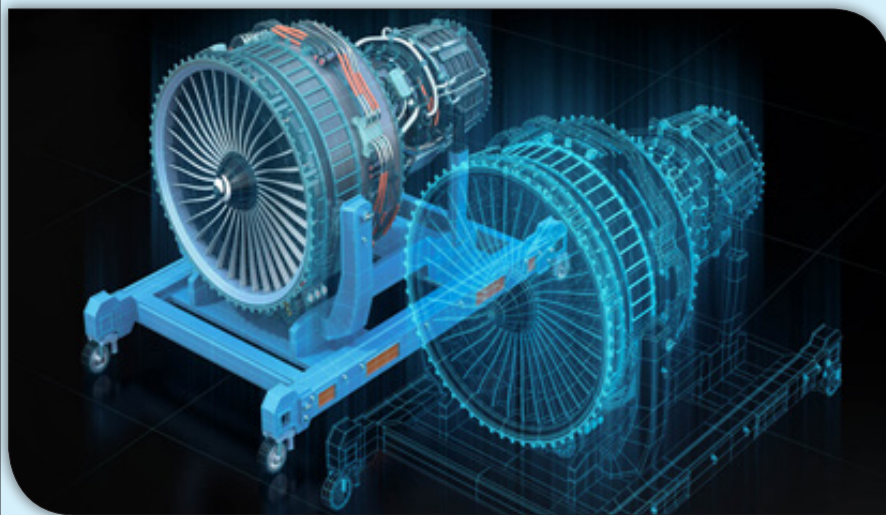
Digital Twin Technology

The digital twin is a digital or virtual copy of the physical product and its dynamics in all aspects. It covers the whole life-cycle of a product. Digital Twin describe the design of the product, how to manufacture the product and how the product behaves in operation, in service and in maintenance. If we have a digital twin that really represents the physical product in the digital world, then we can optimize the system, adopt new ways of working and gain flexibility. Until optimal solution is obtained, we spend less resources like monetary resources and manpower. Thus, a product behavior can be simulated and tested long before a physical prototype has been built. It is more than a simulation and a kind simulation of many different models instead of one.



The term digital twin was first coined by Michel Grieves in 2002. Nasa was one of the first to use this technology for space exploration missions. Digital twin connects the real and virtual world by collecting data from the installed sensors. The data is evaluated and simulated in the virtual copy of the physical assets. This integration of real and virtual helps in optimizing the performance of the real assets. Digital twin can be used in manufacturing, automotive, construction, utilities, health care and so on. Digital twin is the next big thing in the fourth industrial revolution for the development of new products and processes.

For example, manufacturing an aircraft machine can be a complex and costly process. Assembling the first prototype from the parts that haven't been developed to test it together often cause problem and getting everything to function properly may require significant amount of time, material and effort. We can combine the all plans for our machine into a single virtual model called digital twin. The machine can be tested in different environments and on the actual task that it has been designed. We will be able to detect potential problems before anything even been built. Beyond this digital twin facilitates



to monitor aircraft machine in real time and detect potential failure or wear and tear of the machine well before any damage.

Digital twin can be thought of as a living model that drives business outcome. They are also changing how technologies such as IoT, AI and analytics are optimized. Digital twin enables more profitable, safe and sustainable operations. Some of the companies offering digital twin services today are Cisco, IBM, Bosch, Microsoft Azure digital twin, Siemens, and etc.

Prasanna Kumar M
Asst Professor
Dept of ISE

Pledge Certificate-COVID-19

1. Pledge:- Render My Service for Fight Against Corona on 29-06-2021.
2. Pledge:- Swachh Bharat Pledge and will remain committed to keep working towards not indulging in littering and making india 100% clean of waste. On 29-06-2021.
3. Pledge:- Catch the Rain on 29-06-2021.
4. Pledge:- "Integrate and Encourage Yoga through Life" on the occasion of 7th International Day of yoga on 29-06-2021.

Publications :

1. Development and Characterisation of Acetyl Salicylic Acid – Arginine Co-Crystals for Improved Dissolution .ISSN :- 0975-2366. JAYAPRAKASH H V , SHANTHALA H K

Sri Siddhartha Academy of Higher Education, Associate professor, Department of Chemistry, SSIT Tumkur. 2Research Scholar, Sri Siddhartha Academy of Higher Education, Tumkur.

Covid-19-Vaccination drive :

We have conducted Total 5 vaccination drive.
We have completed Total 719 dose.

Faculty Achievements

1. Mrs Roopa M, Assistant Professor, Department of Civil Engineering published journal titled “Analytical Study on Roof Structure of a Metro Station with Respect to Earthquake and Wind Effect” in International journal of Creative Research Thoughts.
2. Mr. Pradeep A R, Assistant Professor, Department of Civil Engineering attended 5 days Faculty Development Program from 14/06/2021 to 18/06/2021 on “Sustainable Practices in Civil Engineering” Organized by UVCE, CED, Bangalore university in association with ATAL-AICTE.
3. Mrs Sowjanya G V, Assistant Professor, Department of Civil Engineering, attended 5 days online Faculty Development Program on “Ability and Inability of AI” from 21st June to 25th June 2021, organised by Gandhi Institute of Technology, Bhubaneswar, Odisha in association with AICTE Training and Learning (ATAL) Academy.
4. Dr. Channakrishnaraju has presented a technical paper titled “Computer Aided Diagnosis of Pancreatic Ductal Adenocarcinoma using Machine Learning Techniques” at International Conference on Sentiment Analysis and Deep Learning (ICSADL 2021) organized by Tribhuvan University, Nepal and Songkla University, Thailand on 18th and 19th June 2021.
5. Prof Babitha M N has attended a Webinar on “The Complete Guide on Review Paper Publication for PhD Scholars on 20th June 2021, organized by Research Graduate Consulting Company.

Workshops and Conferences attended

- Mrs. Rashmi H C has presented a paper entitled “Proxy based data security for cloud data” at the international conference(ICMBDC) held in Bangalore on 6th June 2021.
- Mrs. Champakamala S has attended the workshop on “Deep Learning using medical data” organized by FinLand Labs from 7th June to 11th June 2021.
- Mrs. Champakamala S has attended the workshop on “The complete guide on review paper publication for PhD scholars” organized by Research gate on 20th June 2021.
- Mr. Naveen Kumar N has attended the workshop on “Sources of Research grants and art of writing a research paper” organized by RLJIT, Bangalore on 3rd June 2021.
- Mr. Prasanna Kumar M has attended the workshop on “Sources of Research grants and art of writing a research paper” organized by RLJIT, Bangalore on 3rd June 2021.
- Mr Pradeep M has attended the workshop on “Sources of Research grants and art of writing a research paper” organized by RLJIT, Bangalore on 3rd June 2021.
- Mrs. Rashmi H C has attended the workshop on “Sources of Research grants and art of writing a research paper” organized by RLJIT, Bangalore on 3rd June 2021.
- Miss Amrutha P V has attended the workshop on “Sources of Research grants and art of writing a research paper” organized by RLJIT, Bangalore on 3rd June 2021.

The following students got placed for respective company.

<p>Name: VISHVAS N USN: 17EC114 Company placed: MINDTREE PACKAGE: 4.4LPA</p>	
<p>Name: RAMYA S USN: 17EC080 Company placed: ACCENTURE PACKAGE: 4.5LPA Company placed: CAPGEMINI PACKAGE: 3.8LPA</p>	
<p>Name: MOUNITHA G USN: 17EC054 Company placed: CAPGEMINI PACKAGE: 3.8LPA</p>	
<p>Name: SHILPASHREE M P USN: 17EC094 Company placed: ACCENTURE PACKAGE: 4.5LPA</p>	

Career Opportunities for Engineering Freshers

4th JUNE 2021: Dr. L Sanjeev Kumar, Professor & Head, organized webinar on Career Opportunities for Engineering Freshers in association with SSIT, Electrical Department.



Tremplin
Imagine, Innovate, Implement!

WEBINAR
Career Opportunities for Engineering Freshers

ORGANISED BY
Sri Siddhartha Institute Of Technology, Tumkur

SPEAKER
AVINASH HIREMATH
Director of Strategy and Operations
Tremplin Infotech

FRIDAY 04 JUNE 2021 | **11:00 AM** to **12:00 PM**

JOIN US
<https://meet.google.com/srw-trdq-jwm>

IN ASSOCIATION WITH SSIT, ELECTRICAL DEPT.
RSVP: DR. L. SANJEEV KUMAR,
HOD, ELECTRICAL DEPT

Mahalakshmi Computech, 2nd Flr, Opp RTO
Contact us +91 9886506365

CADD CENTRE TUMKUR |  | **Dhi Analytic Solutions**

“Battery Less Phones”

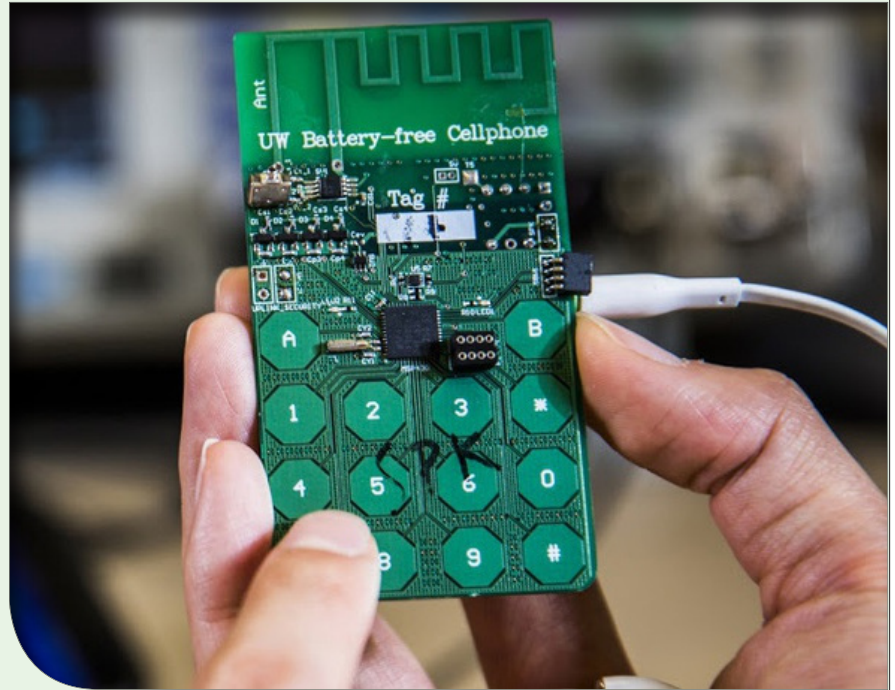
A deep assessment on device for long range scavenging of wireless power.

Introduction:

The smart phones we are using these days are indeed smart, however are they really smart as the companies claim? Yes, they are but even the companies that sell smart phones at phenomenal rates have the issues of battery’s performance. To overcome this battery less phones are developed.

Prototype and working of battery less smart phone:

The user undertakes a button to twig in between the two transmitting and listing notes. We can utilize the shell components on a printed circuit board and can be corroborated and ensure that the battery free prototype can perform basic functions like calling someone and hanging up the call without any inadequate call drops. A custom base station collects the data in form of digital package with the help of “Backscatter” and connects the call through “Skype”, and the person at other end answers the call and responds. The device inherits the signal with the technology referred as “Zero Power Amplitude Modulation” and plants the audio onto the earphones. For making a call, the user has to dial the number on the dial pad and has to speak into the microphone. For attending the call at receiver’s end the user has to pick the call and respond. The call is transported to a long distance with backscatter which helps in the cycling of data packages.



Skype Usage:

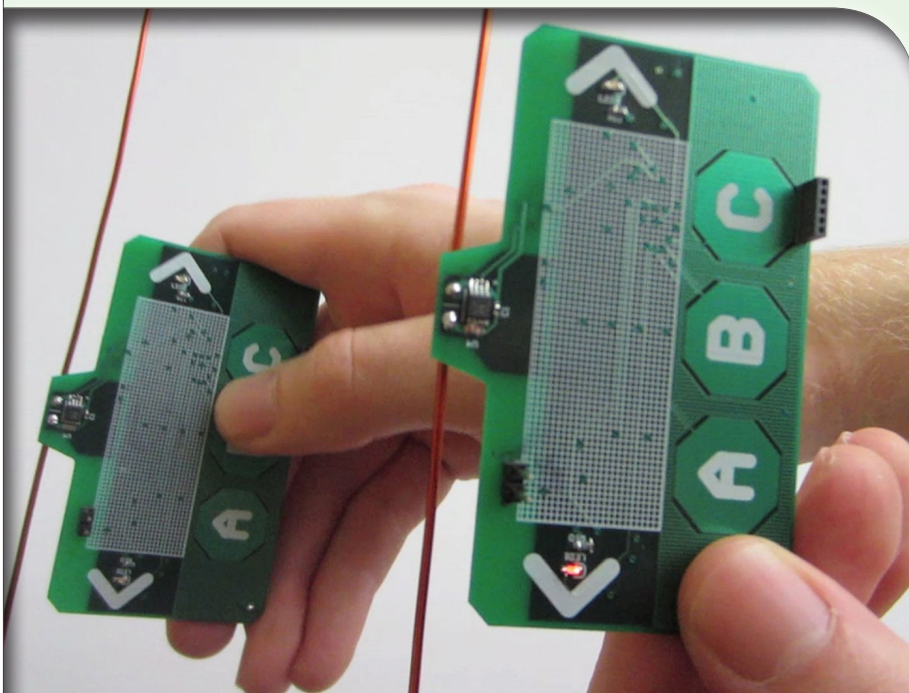
The biggest task with skype was to answer the incoming calls and to keep those calls on hold whenever required. Skype is a VOIP i.e. Voice Over Internet Protocol, used to communicate with anyone around the globe for free of cost. Any VOIP application uses SIP to produce data packs and transmits it to the same network that you use for surfing the internet actually it works as per the IP address. The working starts with the receiver that ranges from hardware products to software applications. User’s voice is first captured by the microphone and then encoded into a digital package that is transferred to a compressor which compresses an audio format so that it can work on slow connection as well. The audio clips are then divided into parts and are finally sent to the required destination from your network. Then at the receiver’s end the audio is reconstructed again to make it clear to the user.

Advantages:

- Conserves electricity.
- Saves time.
- Low power consumption.
- No charging issues.



**Sneha M N(18EC076),
VI semester “B” section
Sri Siddhartha Institute of Technology,
Tumakuru.**



Covid-19-Vaccination drive

