

SKCT DIGEST

**SPECIAL
EDITION**

WEEKLY NEWSLETTER

15 – 19 JUNE 2020



SPECIAL ISSUE - 4

EDITOR - IN - CHIEF

**Dr Srinivasan Alavandar,
Principal**

EDITORIAL TEAM

Ms S Soundarya, CSE

Ms S Thenmozhi, ECE

Mr N SethuNarayanan, S & H



INSIDE THIS ISSUE



**NIRF RANKING
2020**

**STUDENTS'
ACHIEVEMENTS**



**FACULTY
PARTICIPATION**

**NEW VISTAS OF
LEARNING**



**FDPs
ATTENDED**

PUBLICATIONS



PATENTING




NIRF RANKING 2020



NIRF | ALUMNI COMPLIMENTS – NIRF RANKING 2020

ECE A(2015-2019) My Class
Aashika, Abirami, Agalya, Aishwarya R, Ak...

Forwarded



Hari Krishnan

You
Photo

👏👏👏👏 2:41 pm

Skct St Gp

Way to go sir... 151 more to go... 👏👏 3:19 pm

Akilandeswari

👏👏👏 3:22 pm

SKCT ECE ALUMNI 2018
Amrit, Banu, Deepika, Karthikeya...

You
Photo

👏👏👏 5:14 pm

+91 80564 91564 left

+91 90037 72727 ~Ysh🤔

👏👏👏👏 5:15 pm

+91 98420 35910 ~Dd

👏👏👏 5:15 pm

+91 97892 53382 ~G

👏👏👏👏 5:15 pm

VLB 1996 ECE ALUMNI
Bharath, Dayanidhi, Ganesh, Jyot...

The research activities and professional practices of SKCT had been highlighted during the ranking. We thank the students, alumni and parents who directly and indirectly supported us in this achievement 8:01 pm ✓

2 UNREAD MESSAGES

Umashankar

You
Photo

Congratulations Sir 🌸🌸🌸 8:27 pm

Sudha P

You
Photo

Congratulations slr 🌸🌸 8:49 pm

VLB 1990 ECE ALUMNI
Ajith, Ambikadevi, Anil, Bhavani, B...

3:42 pm

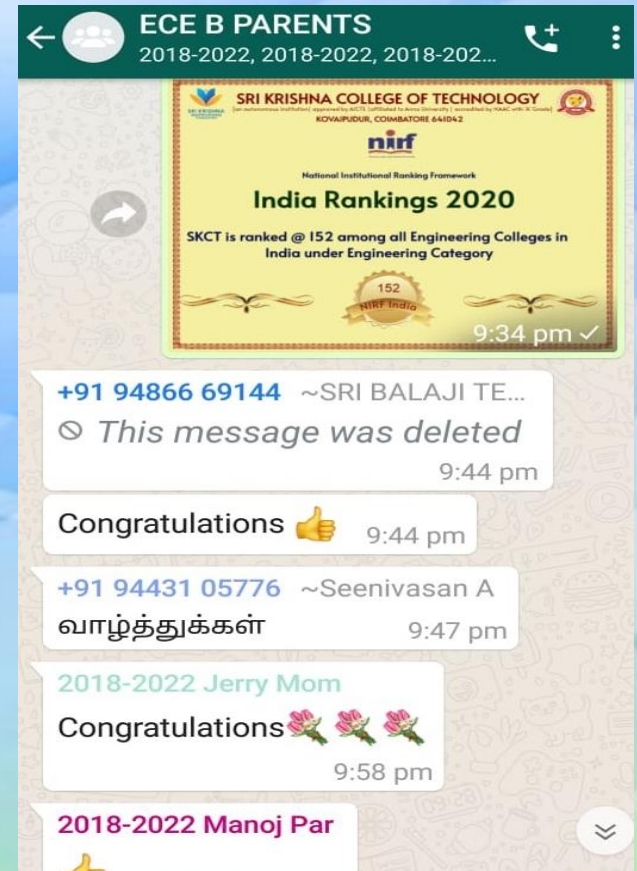
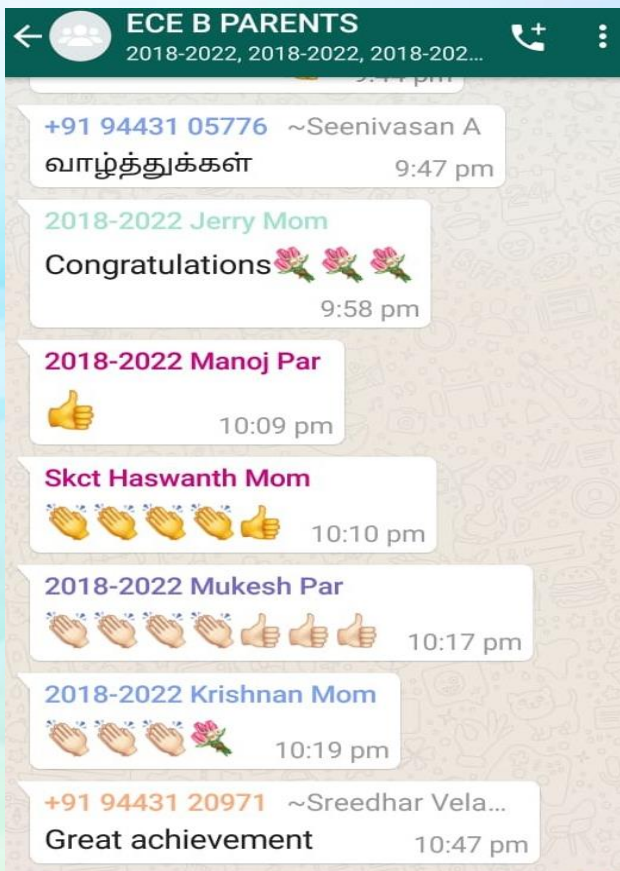
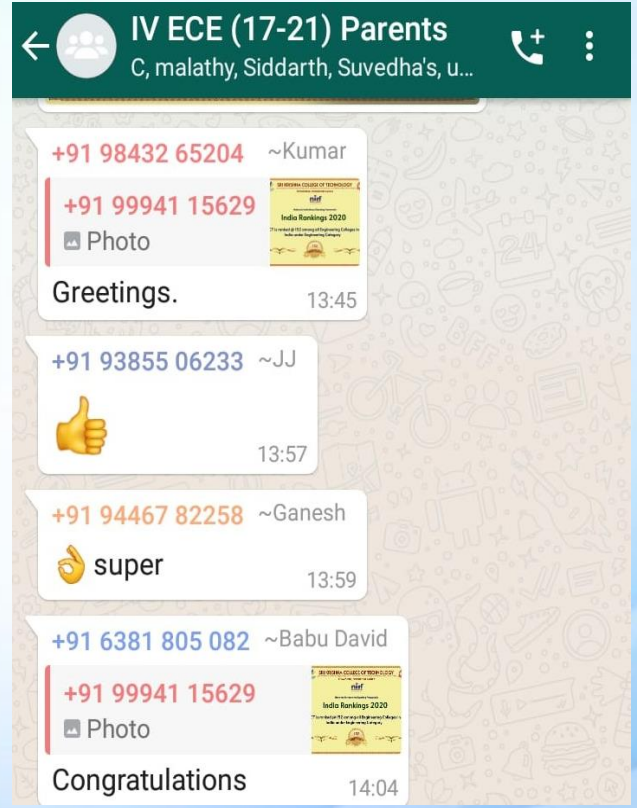
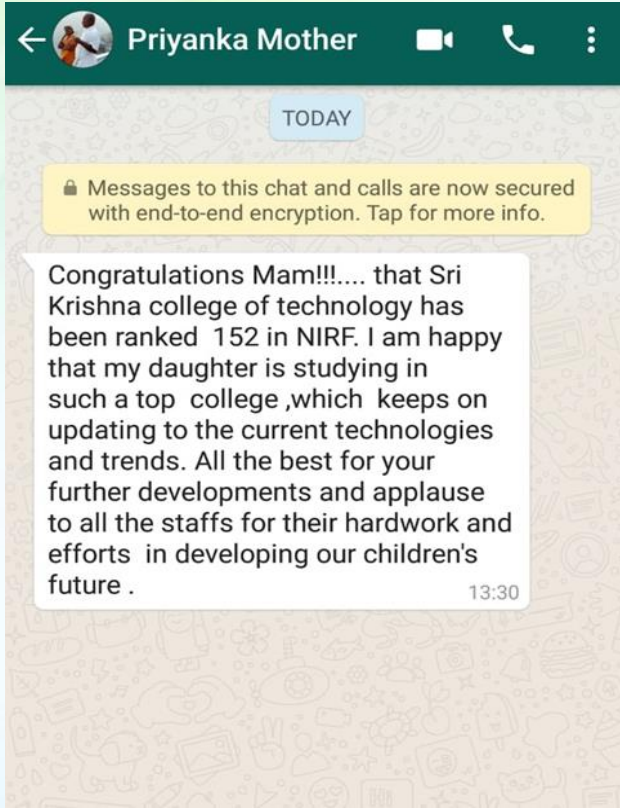
Sri Krishna college of Technology has been positioned at 152 among the top 200 Engineering colleges by National Institutional Ranking Framework (NIRF). Even among the toughest competition, SKCT feels happy in retaining the consistent achievement. The research activities and professional practices of SKCT had been highlighted during the ranking. We thank the students, alumni and parents who directly and indirectly supported us in this achievement 8:01 pm ✓

1 UNREAD MESSAGE

Manoj G

👏👏 8:31 pm

NIRF | PARENTS' COMPLIMENTS – NIRF RANKING 2020





STUDENTS' ACHIEVEMENTS



SOM | ONLINE INTERNSHIP

The image shows a Zoom meeting in progress. The main window displays a presentation slide with the title "INTECH OLYMPIAD" and the subtitle "Project Approach Discussion". The slide content is mostly blank. Below the slide, there are icons for "Tools", "Play", "Share", and "Edit on PC".

On the right side, there is a vertical list of participants. The top participant is "19TPMB012 BEBIN ROSE.J (You)". Below it are "19TPMB043 MANIKANDA...", "19TPMB119 PREETHA.S", and "19TPMB042-LAKSHMI...".

At the bottom, there is a section titled "Others in the meeting (1)" with a participant "19TPMB119 PREETHA.S".

In the center-right, there is a smaller window showing a document titled "Intech Olympiad 2021 Project Schedule". The document contains a table with columns for "Task" and "Date".

At the bottom right, there is a large circular logo for "INTECH OLYMPIAD". The logo features a red gear, a circuit board, and a graduation cap, all within a circular border.

Mr Bebin Rose, Ms Lakshmi Priyanka, Mr Manikanda Prathap, and Ms Preetha of Second Year MBA are undergoing an Online Internship with **“Integrated Technology Olympiad-2021”**.

ECE | WORKSHOP ON ARDUINO PROGRAMMING AND
APPLICATIONS FOR BEGINNERS

Microchip-SNIST-Arduino 2.0 - 307



ONE WEEK ONLINE WORKSHOP ON

**ARDUINO PROGRAMMING AND
APPLICATIONS FOR BEGINNERS**



Certificate of Participation

This is to certify that *Karthikeyan G, Student (UG), ECE, Sket*
has participated in one week online workshop on “ARDUINO PROGRAMMING AND
APPLICATIONS FOR BEGINNERS” during June 8-13, 2020 organized by SNIST-Microchip
Academy, Department of ECE, Sreenidhi Institute of Science and Technology, Hyderabad.

Mr.G. Prasad Acharya
COORDINATOR
MICROCHIP CERTIFIED TRAINER

Dr.V. Kumara Swamy
COORDINATOR
MICROCHIP CERTIFIED TRAINER

Dr.S.P.V.Subba Rao
HEAD, DEPT. OF ECE
SNIST, HYDERABAD

Dr.T.Ch.Siva Reddy
PRINCIPAL
SNIST, HYDERABAD

Dr.P.Narasimha Reddy
EXECUTIVE DIRECTOR
SNIST, HYDERABAD

Mr G Karthikeyan of Second Year B.E. ECE A Section received a Certificate for attending a one-week Online Workshop on “**Arduino Programming and Applications for Beginners**” organized by SNIST-Microchip Academy, Sreenidhi Institute of Science and Technology, Hyderabad during 8 - 13 June 2020.



FACULTY PARTICIPATION



IT | INTERNATIONAL E-CONFERENCE ON GREEN
TECHNOLOGIES

St. Peter's Institute of Higher Education and Research

(Deemed to be university Declared u/s 3 of the UGC Act 1956)
(NAAC accredited, AICTE approved, ISO 9001:2015)
Avadi, Chennai-600054, India



International e-Conference on
Green Technologies for Power Generation,
Communication and Health Care

6th June, 2020

This is to certify that Prof./Dr./Mr./Ms Dr D. Jeyabharathi of Sri Krishna College of Technology has Participated/presented a paper titled IOT based Automatic Animal -Vehicle Collision Detection and Avoidance System in International e-Conference on Green Technologies for Power generation, Communication and Health Care on 6th June, 2020 organized by Department of ECE , EEE & BME at SPIHER, Chennai, India.

Dr.R.Rani Hemamalini
Co-Organizing Chair

Dr.G.R.Suresh
Co-Organizing Chair

Dr.G.P.Ramesh
Organizing Chair

Dr.J.M.Mathana
General Chair

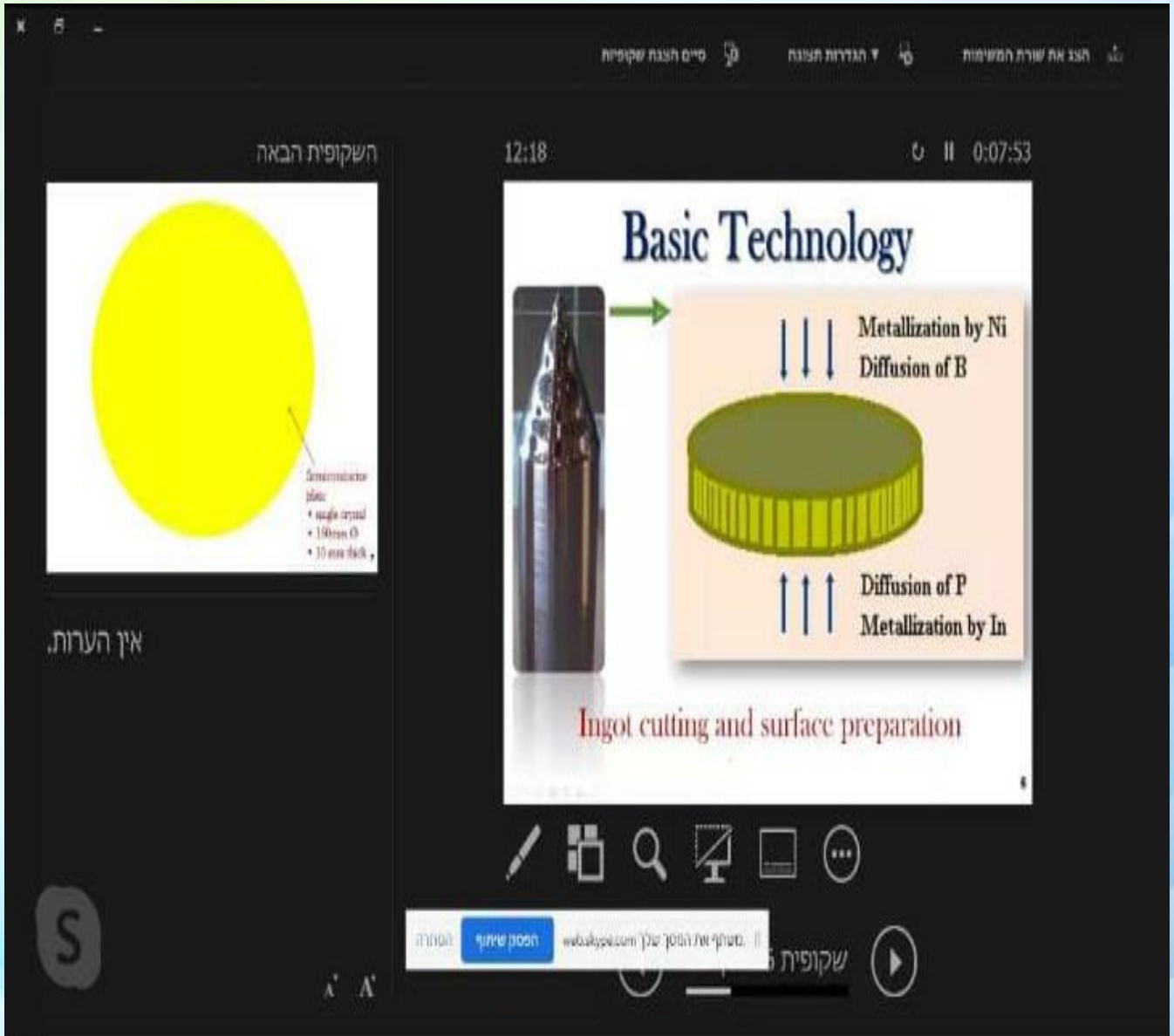
Dr D Jeyabharathi, Asst. Professor, Dept. of IT, presented a paper titled **“IOT Based Automatic Animal – Vehicle Collision Detection and Avoidance System”** in the International e-Conference on Green Technologies for Power Generation, Communication and Health Care on 06 June 2020 organized by St. Peter's Institute of Higher Education and Research, Chennai.

IT | ONLINE COURSE ON MACHINE LEARNING



Dr R Kanmani, Assoc. Professor, Dept. of IT, completed an Online Course on “**Machine Learning**” authorized by Stanford University and offered through Coursera on 15 June 2020.

MECH | INTERNATIONAL CONFERENCE AESMT'20



Dr M Mohanraj, Assoc. Professor and Mr R Dhivagar, Asst. Professor, Dept. of Mechanical Engineering attended the Third International Scientific Conference AESMT'20 on “**Experimental Studies on Performance Enhancement of a Heat Pump-assisted Regenerative Solar Still with Heat Storage Materials**” through Skype during 12-13 June 2020.

ARIEL UNIVERSITY

Continues process based on 4 subsystems

```
graph LR; Condensation --> CO2_capture[CO2 capture]; CO2_capture --> Methanation_reaction[Methanation reaction]; Methanation_reaction --> Methane_storage[Methane storage]; N2_venting[N2 venting] --> CO2_capture; Electrolysis --> Methanation_reaction
```

11:25 1.41 KB/s 77%

← 10 of 18 in the call

Share a link for others to join

ON THIS CALL

- A GG
- AP Ance Pjavniece
- Bachirou Guene Lougou
- Dias Umyshev
- Engr Eman
- Jolanta
- KunLi1992
- sz shlomo zerbib
- zhuoyin1994
- Dhivagar Ramasamy

NOT ON THIS CALL

- Da Daniela
- OK Ozay KAS
- SJ Shaoxuan Jin

AESMT'20 - 09.06.2020 - Morn...
Created by Yanko Georgiev

Share link to join group

Send message

Start video call

Start call

Schedule a call

Search in conversation

38 PARTICIPANTS

- + Add people
- A GG
- AP Ance Pjavniece
- Ayse Fidan Altun



NEW VISTAS OF LEARNING



EEE | WEBINAR ON WEARABLE ELECTRONICS



NEW HORIZON
COLLEGE OF ENGINEERING

New Horizon Knowledge Park, Ring Road, Marathalli
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

CERTIFICATE OF PARTICIPATION

This is to certify that

Mr./Ms./Dr.A GAYATHRI

of

Sri Krishna College of Technology, Coimbatore

has participated in the International Webinar on

"WEARABLE ELECTRONICS FOR MEDICAL & DEFENCE APPLICATIONS"

hosted by Department of Electrical and Electronics Engineering, New Horizon College of Engineering, Bangalore, Co-hosted by IEEE NHCE Student Branch, on 12th june-2020 from 10:00 AM to 11:30 AM

VINOD KUMAR S
COORDINATOR/EEE

Dr.K C R NISHA
BRANCH
COUNCELLOR, IEEE
NHCE STUDENT
BRANCH

Dr.RAMKUMAR S
HEAD OF THE
DEPARTMENT/EEE

Dr.MANJUNATHA
PRINCIPAL



Ms Gayathri, Asst. Professor, Dept. of EEE participated in an International Webinar on “ **Wearable Electronics for Medical & Defence Applications**” conducted by New Horizon College of Engineering, Bangalore along with IEEE NHCE Student Branch. The Session was facilitated by Dr L Ashokkumar, Associate Head & Professor, Dept. of EEE, PSG College of Technology, Coimbatore on 13 June 2020.

IT | WEBINAR SERIES ON COVID 19 – IMPACT ON FUTURE
MANAGER

SCHOOL OF MANAGEMENT

D G Vaishnav College

knowledge partners

Business Standard
Insight OutCERTIFICATE OF PARTICIPATION
DGSOM CLOUD CONNECT

This is to certify that

Ms Roopa V

of **Sri Krishna College of Technology** participated in the "Webinar Series - DGSOM Cloud Connect" organized by the School Of Management, D. G. Vaishnav College on the topic "COVID 19 - Impact on Future Manager" from June 1 to June 6, 2020.

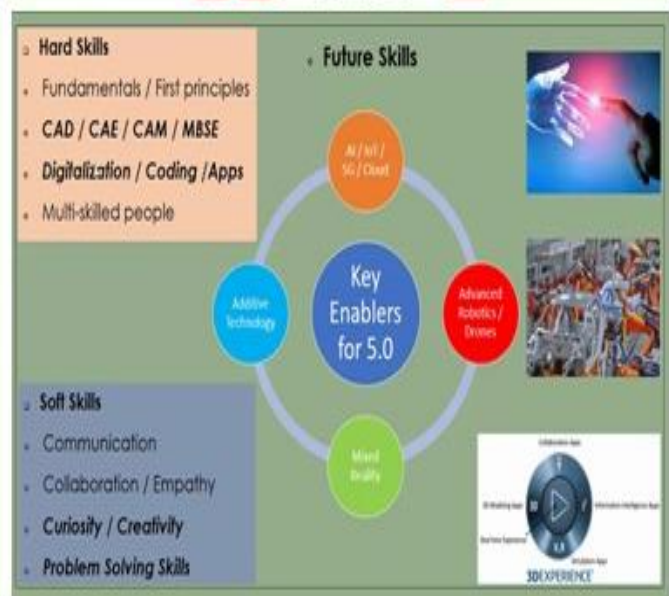
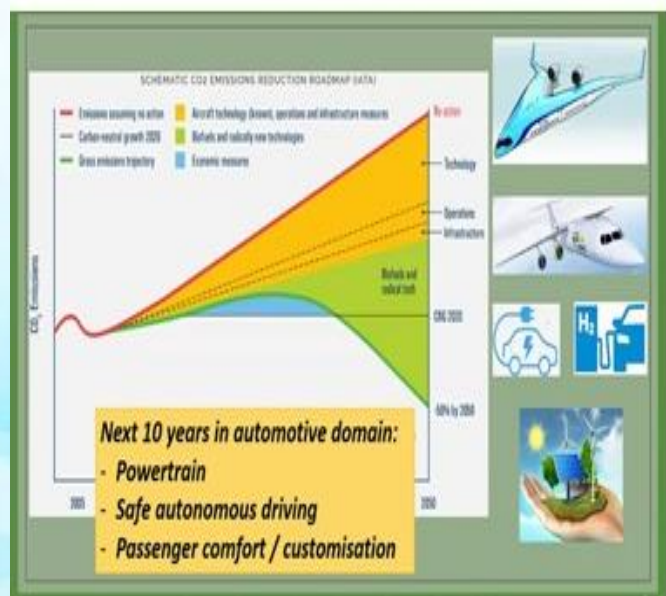
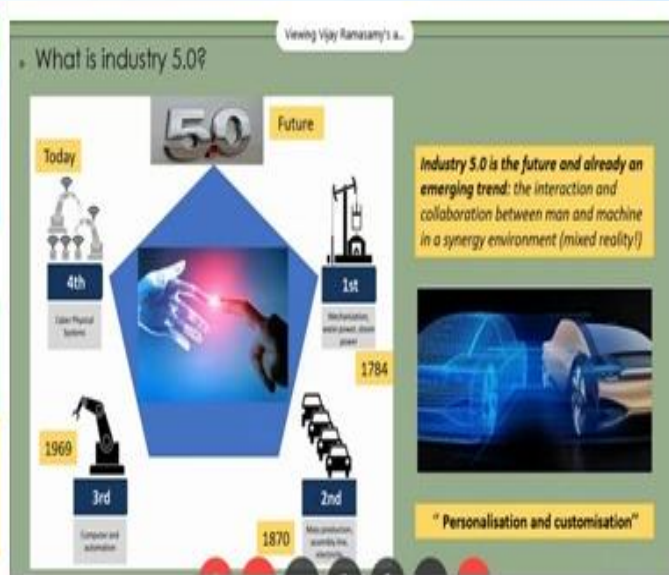
Dr.U. Amalshwari
Director

Dr. R. Ganesan
Principal

Shri. Ashok Kumar Mundhra
Secretary

Ms V Roopa, Asst. Professor, Dept. of IT, participated in the webinar series "DGSOM Cloud Connect" on "**COVID 19 – Impact on Future Manager**" organized by D G Vaishnav College, Chennai during 01 - 06 June 2020.

MECH | WEBINAR ON UPSKILLING FOR INDUSTRY 5.0 CHALLENGES



Students and Members of Faculty in the Dept. of Mechanical Engineering attended a Webinar on **"Upskilling for Industry 5.0 Challenges"** facilitated by Mr.R.Vijayakumar, Head, Advanced Numerical Simulations, Airbus Group, Bristol, United Kingdom through SAEISS on 14 June 2020.

ICE | WEBINAR ON APPLICATION OF AI AND ML IN
PROCESS INDUSTRIES


 KUMARAGURU
 college of technology
 COIMBATORE - 435 125


 International Society of Automation
 Setting the Standard for Automation™


 Bangalore
 Section

Department of
**Electronics & Instrumentation
 Engineering**


**International Society of
 Automation**
 Bangalore Section

A 5 Day Webinar Series on
TECHNOLOGIES SHAPING FUTURE AUTOMATION
 15th June 2020 - 19th June 2020

Present this

CERTIFICATE

To

DILIP KUMAR S

SRI KRISHNA COLLEGE OF TECHNOLOGY

for active participation in the Webinar series on the topic
APPLICATION OF AI & ML IN PROCESS INDUSTRIES
 organised by the
 Department of Electronics & Instrumentation Engineering
 of Kumaraguru College of Technology, Coimbatore in association with
 International Society of Automation (ISA), Bangalore Section
 held on Monday, 15th June 2020


 Head, E&I
Dr. M. Ezhilarasi
 Kumaraguru College of Technology
 Coimbatore


 Principal
Dr. J. Srinivasan
 Kumaraguru College of Technology
 Coimbatore


 President
Dr. Jayesh Barve
 International Society of Automation
 Bangalore Section

Mr. S Dilip Kumar, Asst. Professor, Dept. of ICE attended a Webinar on “**Application of AI & ML in Process Industries**” organized by the Dept. of EIE, Kumaraguru College of Technology, Coimbatore on 15 June 2020.

ICE | WEBINAR ON FUTURE TECHNOLOGY TOOLS- FOR A
PROCESS AUTOMATION ENGINEER

Department of
**Electronics & Instrumentation
Engineering**

International Society of
Automation
Bangalore Section

A 5 Day Webinar Series on
TECHNOLOGIES SHAPING FUTURE AUTOMATION
15th June 2020 - 19th June 2020

Present this

CERTIFICATE

To

DILIP KUMAR S

SRI KRISHNA COLLEGE OF TECHNOLOGY

for his/her active participation in the Webinar series on the topic
FUTURE TECHNOLOGY TOOLS - FOR A PROCESS AUTOMATION ENGINEER
organised by the

Department of Electronics & Instrumentation Engineering
of Kumaraguru College of Technology, Coimbatore in association with
International Society of Automation (ISA), Bangalore Section
held on Tuesday, 16th June 2020

Head, E&I

Dr. M. Ezhilarasi

Kumaraguru College of Technology
Coimbatore

Principal

Dr. J. Srinivasan

Kumaraguru College of Technology
Coimbatore

President

Dr. Jayesh Barve

International Society of Automation
Bangalore Section

Mr. S Dilip Kumar, Asst. Professor, Dept. of ICE, attended a Webinar on “**Future Technology Tools- for a Process Automation Engineer**” organized by the Dept. of EIE, Kumaraguru College of Technology, Coimbatore on 16 June 2020.

MECH | WEBINAR ON ALUMINIUM ALLOY NANO COMPOSITES AND ITS CHARACTERIZATION STUDIES



Mr K Vickram, Asst. Professor, Dept. of Mechanical Engineering, attended a webinar on **“Aluminium Alloy Nano Composites and its Characterization Studies”** organized by the Dept. of Mechanical Engineering, Kings College of Engineering, Thanjavur on 13 June 2020.

MECH | WEBINAR ON FUTURE EDUCATION

Mr R Dhivagar, Asst. Professor, Dept. of Mechanical Engineering, attended a webinar on **“Future Education”** organized by ICT Academy, on 18 June 2020. Prof D P Singh, Chairman, University Grants Commission, facilitated the session.



MECH | WEBINAR ON ENGINEERING THE WORLD RALLY CAR - SUBARU'S RACING SET-UP FOR A WRC SERIES

Data gathering

Font and Suspension cradle



Problem statement

- ▶ Understanding of suspension system.
- ▶ Roll centres.
- ▶ Centre of Gravity(COG).
- ▶ Effects of Roll centres on Handling.
- ▶ Anti Squat.
- ▶ Lateral forces.
- ▶ Roll angle.
- ▶ Sway bar.

Actual anti-squat setup

The car has 76.22% anti-squat, to get higher percentage 12-16 mm washers are added to rear cradle



Close		Participants (54)	
Search			
	Mr. R.Harikrishnan, AP Mech		
	Graeme Harris		
	Kishore R		
	17BAU005		
	17BAU006		
	17BAU008		
	17BAU012		
	17BAU015		
	17BAU017		
	17BAU023		
	17BAU025 Muhsinul Islam M M		
	17BAU034		

Mr R Harikrishnan, Asst. Professor, Dept. of Mechanical Engineering, attended a webinar on “Engineering the World Rally Car - Subaru's Racing set-up for a WRC Series”. Mr. Graeme Harris, International Motorsport expert and Sr. Lecturer, ARA Institute of Canterbury, NZ facilitated the session on 18 June 2020.

MHRD | LEADERSHIP TALK

Leadership talk
with
Shri R Subrahmanyam, IAS

Dr. Abhay Jere
Chief Innovation Officer
MHRD Innovation Cell

JOIN US ON
@abhayjere
YouTube Abhay Jere

Saturday 13th June 2020 at 01.00 PM



Members of Faculty and Students of SKCT attended a Seminar on **“Leadership Talk”** with Shri R Subrahmanyam, Secretary, Dept. of Social Justice and Empowerment & Dr Abhay Jere, Chief Innovation Centre, MHRD Innovation Cell through TWITTER Live on 13 June 2020. Ms. V Roopa, Asst. Professor, Dept. of IT coordinated the session.



FDPs ATTENDED



IT | FDP ON MACHINE LEARNING



Auxilium College (Autonomous)

(Accredited by NAAC with A⁺ Grade with a CGPA of 3.55 out 4 in 3rd Cycle)

Gandhi Nagar, Vellore – 632 006.

CERTIFICATE

Dr. D. Jeyabharathi

Sri Krishna College of Technology

has participated in the One Week Online Faculty Development Programme on “Machine Learning” held from 1st – 7th June 2020 organized by the PG Department of Computer Science, Auxilium College (Autonomous), Vellore.

Ms. Shanthi A.L.

Organizing Secretary

Department of Computer Applications
Auxilium College, Vellore

Dr. S. Lavanya

Organizing Secretary

Head, PG Department of Computer Science
Auxilium College, Vellore

Dr.(Sr.) Regina Mary R.

Convenor

Principal
Auxilium College, Vellore

Dr D Jeyabharathi, Asst. Professor, Dept. of IT, participated in an online Faculty Development Programme on “**Machine Learning**” during 01 - 07 June 2020 organized by Auxilium College, Vellore.

EEE | FDP ON ROAD MAP TO GET A QUALITY PATENT

**Department of Electrical and Electronics Engineering****National Level E-Faculty Development Programme**

On

"Road Map to get a Quality Patent"**Certificate of Participation**

This is to certify that

Ms.A.Gayathri

has participated in the *National Level E-Faculty Development Programme on Road Map to get a Quality Patent* organized by the Department of Electrical and Electronics Engineering held on 13th June 2020 at AMET Deemed to be University, Chennai.

Certificate No: AXZG8S-CE000503**Date :13/06/2020**
Convener**Dr.T.Sasilatha****Dean- EEE**

Ms. A Gayathri, Asst. Professor, Dept. of EEE participated in the National-level E-Faculty Development Programme on **"Road Map to Get a Quality Patent"** organized by the Dept. of EEE, AMET University, Chennai. The session was facilitated by Mr Sasikumar Chandran, Founder & CEO of HUMCEN.

MECH | FDP ON 3D PRINTING AND DESIGN



A One Week Online Faculty Development Program
On
3D PRINTING AND DESIGN
15-19 June, 2020



Under AICTE Training And Learning (ATAL) Academy Program
Organized by



Department of Mechanical Engineering, NIT Warangal

Speakers

Dr. Y Ravi Kumar Prof. L Krishnanand Prof. A Kumar Dr. M Manjiaah Mr. K Rakesh

**Course Coordinators**

Dr. Y Ravi Kumar
Prof. L Krishnanand
MED, NIT Warangal



Mr K Senthilkumar and Mr S Ramkumar, Asst. Professors, Dept. Mechanical Engineering, attended a five-day Faculty Development Program on “3D Printing and Design” under ATAL Program organized by the Dept. of Mechanical Engineering, NIT Warangal during 15-19 June 2020.

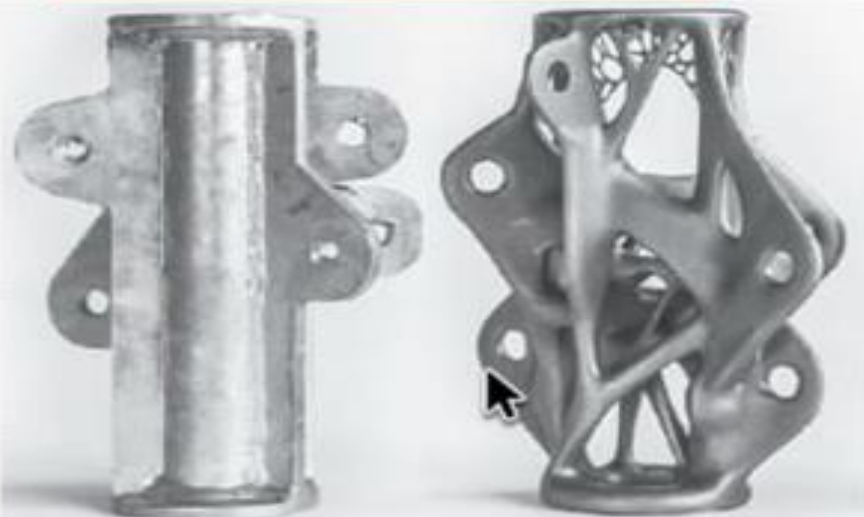
MECH | FDP ON 3D PRINTING AND DESIGN

Introduction to CAD and 3D Printing File Formats

Prof. Lanka Krishnanand
Dept. of Mechanical Engineering
National Institute of Technology
Warangal – 506 004, India



Topological Optimization



Source: www.afus.com



A One-week ONLINE AICTE-ATAT FDP on
3D Printing & Design
June 15 – 19, 2020,
NET Warangal, Warangal, India

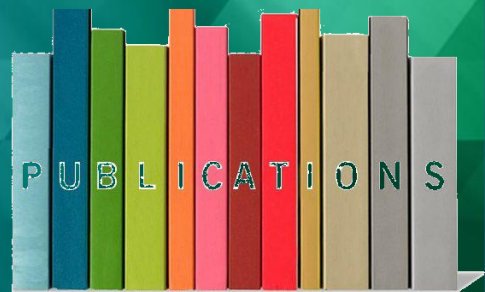


Dr. T. Ajay Kumar
Associate Professor
Dept. of Mechanical Engineering
NET Warangal, India





PUBLICATIONS



EEE | JOURNAL PUBLICATION



May – June 2020
ISSN: 0193-4120 Page No. 17860 - 17864

Examination Impersonation Avoidance System Using Fisherface Algorithm

T.Bharani Prakash¹, Dr.K.Kannan², S.Nagakumararaj³

^{1,3}Assistant Professor, Department of EEE, Sri Krishna College of Technology, Coimbatore, Tamilnadu, India

²Associate Professor, Department of EEE, Sreenidhi Institute of science and technology, Hyderabad, Telangana, India

Article Info

Volume 83
Page Number: 17860 - 17864
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Article History

Article Received: 1 May 2020
Revised: 11 May 2020
Accepted: 20 May 2020
Publication: 24 May 2020

Abstract

In this day and age that observes an ever-changing situation inside the specialized fields, the idea of an "assessment" also has changed. From the standard techniques for pen-and-paper and Optical Mark Recognition (OMR), it's developed into 'Online Examinations', which are bounty increasingly adaptable, efficient further as require many less assets. Be that as it may, they need certain disadvantages as well. While the vulnerabilities required inside the working of the gear and 'server separate' do influence the assessment, the advancements in innovation have overcome these. In any case, the chief significant issue looked by online assessments is that the validness of the researcher who is taking it. Impersonation, since it is named, is truth be told, due to the carelessness (or in specific cases as a result of the participation) of the human factors that are available at the assessment community. The point of this paper is to take out these human elements, to ensure that pantomime, assuming any, might be effortlessly distinguished, and furthermore the impersonator isn't permitted to go to the assessment. For this reason, two-advance procedure of biometric check of the applicant is utilized, facial and unique finger impression acknowledgment, right now, might be maintained a strategic distance

Keywords: Online exam, Aadhar, Facial recognition, fingerprint recognition

I. INTRODUCTION

Online assessments have gradually started picking up fame and are holding onto the ordinary strategies for pen-and – paper and OMR reaction sheets in India. At first, in any case, it faced various difficulties. Back in the year 2019, when the National Eligibility and Entrance Test got necessary for clinical universities, numerous understudies were gotten for pantomime and it turned into a significant issues in all over India and furthermore the DCAT occurrence occurred in 2009 the coordinators had to supply examinees another possibility at noting the paper as there have been PCs getting slammed and various competitors couldn't finish the test .Almost 10 years after the DCAT episode, online assessments turned into a pattern. Most coordinators lean toward online assessments over disconnected assessments on account of components like cost

viability in addition as time and vitality protection. Understudies also have started adjusting to the new strategy, however step by step. The advantages of a web assessment over the disconnected one, from an understudy's point of view incorporate the advantage of fixing a specific answer, the flexibility to choose a date of assessment besides on the grounds that the clock set at the server, which causes them deal with their assessment time adequately. Different proposition are made to take out pantomime in online assessments. In any case, a large portion of them include just a 1 stage biometric confirmation or check of social attributes , which aren't constantly solid. Different assortments of pantomime difficulties that are looked in a web assessment are talked about in .During this paper, a way is implied and executed to kill these pantomime types. Here, an arrangement of pantomime location

17860

Published by: The Mattingley Publishing Co., Inc.

Mr. T Bharani Prakash and Mr. S Nagakumararaj, Asst. Professors, Dept. of EEE published a Research Paper titled "Examination Impersonation Avoidance System Using Fisherface Algorithm" in the Scopus-Indexed Journal of Test Engineering and Management.

EEE | JOURNAL PUBLICATIONS

Research Journal of Chemistry and Environment _____ Vol. 24 (Special Issue I), (2020)
Res. J. Chem. Environ.**Improvement in the performance of solar cells through the deposition of nano particles for avoiding surface reflections**Rajesh Kumar B.^{1*}, Sundararaju K.², Ishwarya S.² and Senthil Kumar R.³1. Department of Electronics and Communication Engineering, M. Kumarasamy College of Engineering, Karaikal, Tamil Nadu, INDIA
2. Department of Electrical and Electronics Engineering, M. Kumarasamy College of Engineering, Karaikal, Tamil Nadu, INDIA
3. Department of Electrical and Electronics Engineering, Sri Krishna College of Technology, Coimbatore, Tamil Nadu, INDIA
*rjguse2011@gmail.com**Abstract**

In 21st century the conversion from fossil fuels into renewable energy sources occurs and it was the challenge faced by humans. The solar cell manufacturing industries was grown rapidly due to tremendous interest in renewable energy sources. Recent technology used in solar industry has little chance to emulate with non-renewable energy sources or grids. For huge energy generation the cost of the system is high. Cost plays a vital role in achieving a favorable outcome in solar technology.

The improvement in nanotechnology may lead to the manufacture of low-cost solar cells. Nanotechnology showed a sudden change in the solar technology. Nano imparting technology has been used to enhance the efficiency of Photovoltaic solar cells, but the challenge faced by the scientists is the reduction in cost. Obtaining energy from a solar cell should preserve the surroundings. This system predicts about the drawbacks in conventional sources and research made in order to overcome the disadvantages and science that are used to utilize maximum energy.

Keywords: Nanotechnology, Conventional Energy, Solar Cell, Quantum dots.

Introduction

Renewable energy sources were more important and it is utilized globally. Photovoltaic cells convert the potential of rays from the sun into charge¹. Before discuss about upcoming developments in solar cells, it is important note to know about the basics of solar cells. Solar cells which utilize energy as heat in sunrays are called photovoltaic cells. Silicon is majorly used for production of solar cells. When light falls into the cells, they engage majority of energy through photons. The soaked-up energy hits the electrons in the solar cell made of silicon allow them to proceed.

By enumerating different contaminants to the silicon an electric field can be setup. The electric field produced from silicon material acts as a diode, since it permits the electrons to allow in one direction². The final stage is the majority of electrons which is very familiar to us as electricity.

* Author for Correspondence

Special Issue on Renewable Energy and Sustainable Environment

1

Normal solar cell has two disadvantages mainly; one is the less efficiency which is unavoidable in silicon material. In that the incoming photon must have enough energy to knock out the electrons. The photon energy may more or less when compared to band gap energy, accordingly the photon either may pass through or wasted as heat. For this process alone 70% of occurrence of the radiant energy on the cell is wasted. Nanoparticles are very less compared to the width of human hair³⁻⁵. Nanoparticles atoms dwell on their surfaces rather than in their interiors were more. It shows surface interactions govern the nano particles behavior. They often have different characteristics when compared to the same material. Nanotechnology was incorporated into system mainly to lower cost and increase efficiency⁴. The solar cells consist of Nano structured layers has three significant qualities. In first phase, the actual optical track is more than actual thickness because of several reflections.

In later phase, recombination losses were lowered because of the light produced electrons holes has to travel along a minimum path. As an outcome of system, the nano structured solar cells have an absorber layer and its thickness is as thin as 150 nm in place of numerous micrometers in the conventional thin film solar cells. At last, the third phase is the various layers where the energy band gap is made according to the preferred design by changing the size of nano elements. It made for the solar cells design flexibility⁶.

This film is one of the high costs in which the solution is made up of thin coating component which was available at very low cost. Only very low material is required which is approximately <1% and prices were reduced. Many cells use amorphous silicon, which does not have a crystalline structure and efficiency is reduced (8%), however the manufacturing cost is low. According to Lawrence Berkeley National Laboratory, the maximum output was attained nowadays was about 25%¹⁰.

Material and Methods

Nowadays, Solar cells are not capable of converting entire received light to proposed energy since few particles of light can evolved into the air. Added to it, light rays occur in a multi colors and the cells are fastened in changing bluish light and functions at slow rate in conversion of reddish light. Reduced energy level of the light passes through the cell which is not utilized. When the energy becomes greater than the band gap it is exhausted in the form of heat which is shown in Fig. 1. The excited electrons must recombine

Mr R Senthil Kumar, Asst. Professor, Dept. of EEE published a research paper titled “Improvement in the Performance of Solar Cells through the Deposition of Nano Particles for Avoiding Surface Reflections” in the Scopus-Indexed Research Journal of Chemistry and Environment, Vol.24 (Special Issues I),2020.

Dr P Ponmurugan, Assoc. Professor, Dept. of EEE published a research paper titled “Automation of Commercial & Residential buildings using IOT” in the Scopus-Indexed International Journal of Advanced Science and Technology, Vol. 29, No. 4s, 2020.

International Journal of Advanced Science and Technology
Vol. 29, No. 4s, (2020), pp. 2230 - 2237**Automation of Commercial & Residential buildings using IoT**S.Mathesh Kumar¹, S.M.Mohamed Suhail², N.Pradheep³, V.Preethikadevi¹, P.Ponmurugan⁵^{1,2,3,4}UG Student, Dept. of EEE, Sri Krishna College of Technology, Coimbatore⁵Associate Professor, Dept. of EEE, Sri Krishna College of Technology, Coimbatore**Abstract**

Power consumption of electrical appliances when not utilized is a serious issue in all organizations and institutions. Most of the organizations have manual control to operate and monitor the electrical appliances. By this practice, the electrical appliances like lights, fans, computers, etc are left ON when they are not in use in office rooms and even in restrooms. This led to unnecessary power consumption which can be utilized properly if avoided. In this paper, automatic control and monitoring of electrical appliances is done with the use of IoT. For implementing the concept, RFID tags, IR sensors, solenoid locks are utilized for sensing and automating the door lock system. A mobile application is developed to ease the entire process.

Keywords: IoT, Wi-Fi, RFID, Sensors, Automation, smart room

1. Introduction

In modern society, people spend most of time in their organization. There is no doubt that the organization environment directly affects the working efficiency, so comfort is required inside the organization. On the other hand, the current energy crisis and growing environmental contamination dilemma all over the world especially in developing countries make energy conservation become the new trend of organization buildings. In response to these thorny issues, the smart office system emerges.

A smart organization system usually consists of an embedded automation system, information technology, and automation technology, several controlled objects and corresponding sensors. It should be sensitive to user's demand, and then analyze it, finally react to it in time. On the other hand, recent researches on smart organization system mainly focus on only one installation e.g. lighting. The automation of technology is achieved through Internet of Things (IoT). Nowadays, we are encircled by lots of IoT

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**Numerical Solutions of Fuzzy Differential Equation under
Generalized Differentiability concept using a Third Order
Runge - Kutta Method with Contra Harmonic Mean**

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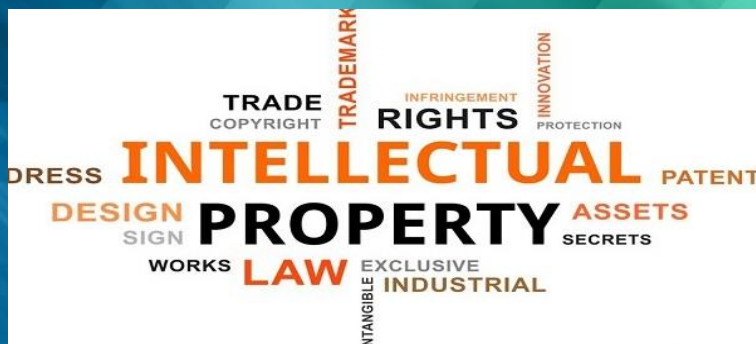
ஸ்ரீ-கிருஷ்ணா தொழில்நுட்பக் கல்லூரி



Dr V Parimala, Asst. Professor of Mathematics, Dept. of S&H published a paper titled **“Numerical Solutions of Fuzzy Differential Equation under Generalized Differentiability Concept using a Third Order Runge- Kutta Method with Contra Harmonic Mean”**, Gedrag & Organisatie Review - ISSN:0921-5077, Volume 33: ISSUE-02 on June 2020.



PATENTING



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(57) Abstract :
 The objective is to design a semi-autonomous drone capable of self-sustained flight via wireless communications while utilizing a microcontroller. The drone was designed to be small enough so that costs would be minimized, hence small motors and propellers are used. While a PIC microcontroller, accelerometer, and gyroscope are communicating between each other to maintain control. The scheduler program arranges the following tasks: controller input, sensor data received from the accelerometer, gyroscope and magnetometer. The wireless transceivers use SPI to send control signals to the microcontroller on the drone from the handheld controller unit. The accelerometer/gyroscope and magnetometer both use I2C to send the amount of acceleration, stabilization, and the direction vector. To achieve flight, two of the motors must apply downward force and the other two motors have to apply an upward force. To turn, one pair (left or right side) of motors slows down to turn the copter. To ascend, all motors will increase in speed, and will all decrease in order to descend. To move forward, the front two motors will decrease while the back two motors will increase and vice versa in order to move in a backwards direction.

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Mr S Nagakumararaj, Asst. Professor, Dept. of EEE published a Patent titled **“Development of Pesticides Spray Drone for Agriculture Fields”** in Intellectual Property Rights (IPR) Journal 2020.

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A Project titled “**Smart Ayna**” has been filed for Patenting under Intellectual Property Rights (IPR) by Mr S Ganesh Prabhu, Asst. Professor, Dept. of ECE along with Students of Final Year B.E. ECE B Section Mr. M Aravind, Mr. M Ashwin, Mr. S Balavruthish, Mr. D Amarthiyan and Mr. R Harisankar on 11 June 2020. The Project **Smart Ayna** is an Evolutionary prototyping model and Ambient intelligence device which acts as a conventional mirror displaying useful information like weather updates, time, date, global news, events, and reminders and can also control home appliances through voice commands.

NATIONAL READING DAY

NATIONAL READING DAY

19 June 2020

**SWING BY THE LIBRARY TO CHECK
OUT A BOOK FOR TODAY!**

India celebrates the 25th edition of the National Reading Day on June 19. The day is celebrated in honour of Father of India's Library Movement - Puthuvayil Narayana Panicker. PN Panicker born to Govinda Pillai and Janaky Amma at Neelamperoor, Kerala on March 1, 1909. As a teacher, his influence was far greater than many of his time. Dedicated to the improvement of society through the only true tool – education, he started that Sanadanadharmam Library as a teacher in his hometown. Panicker travelled through the state and went from village to village, talking about the values of reading. In his lifetime, he was able to bring about 6000 libraries within the network. This year marks the 25th anniversary of the National Reading Day. To honour the man and his message of 'Read and Grow', the week starting June 19 would be celebrated as Reading Week. Furthermore, this year, the 'Reading Month' would also be celebrated from June 19 to July 18.

Courtesy
Times of India