IFERP®
connecting engineers... developing research

Sri SAIRAM COLLEGE OF ENGINEERING

ICASET–18

5th International Conference on Applied Science Engineering and Technology

Anekal, Bengaluru
17th – 18th May 2018

Published by:
Institute For Engineering Research and Publication (IFERP)

Organized By:
Sri Sairam College of Engineering
Anekal, Bengaluru

From Director's Desk ….

Rudra Bhanu Satpathy.,
Director,
Institute For Engineering Research and Publication.

On behalf of ***Institute For Engineering Research and Publications (IFERP)*** and in association with ***Sri Sairam College of Engineering,*** Anekal, Bengaluru. I am delighted to welcome all the delegates and participants around the globe to ***Sri Sairam College of Engineering, Anekal, Bengaluru*** for the ***"5th International Conference on Applied Science Engineering and Technology (ICASET-18)"*** Which will take place from ***17th -18th May '18***

Transforming the importance of Engineering, the theme of this conference is ***"5th International Conference on Applied Science Engineering and Technology (ICASET-18)"***

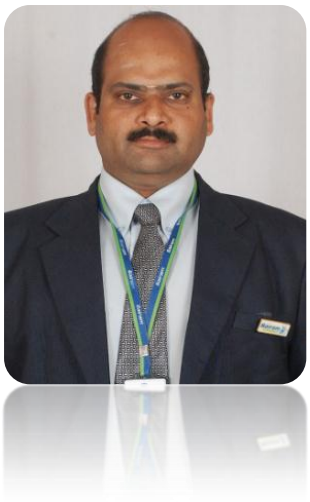
It will be a great pleasure to join with Engineers, Research Scholars, academicians and students all around the globe. You are invited to be stimulated and enriched by the latest in engineering research and development while delving into presentations surrounding transformative advances provided by a variety of disciplines.

I congratulate the reviewing committee, coordinator **(IFERP & SSCM)** and all the people involved for their efforts in organizing the event and successfully conducting the International Conference and wish all the delegates and participants a very pleasant stay at ***Anekal, Bengaluru.***

Sincerely,

Rudra Bhanu Satpathy

Preface



C. Sivaprakash
Program Chair
Professor& Head, Dept. of ECE
Sri Sairam College of Engineering, Anekal, Bengaluru-562106

Welcome to the ***5th International Conference on Applied Science Engineering & Technology (ICASET 2018)*** in ***Bengaluru.*** Bengaluru is referred as Silicon Valley of India or IT capital of India because of its role as the nation's leading information technology also it serve as an international forum for researchers to exchange and share their experiences, ideas, and latest research results on all aspects of ***Science, Engineering & Technology***. This year's conference includes an exciting collection of contributions resulting from a successful call for papers.

We are very pleased to introduce the proceedings of the ***ICASET-2018***, held in ***Sri Sairam College of Engineering on May, 17th & 18th 2018***. The conference provided a platform to discuss application of science and engineering in industrial production. The participants of the conference were both from academia and from industry. Its success is reflected in the papers received, with participants coming from several areas, allowing a real multicultural exchange of experiences and ideas.

The conference highlighted the latest advancement in research and development in the fields of ***Electronics & Communication Engineering, Mechanical Engineering, Electrical***

Engineering, Computer Science & Engineering, Civil Engineering, Information Technology, Applied Sciences etc. The conference theme is "Applied Science, Engineering and Technology: Lighting the Way towards factors for technological advancements and its applications". Applied Science, Engineering and Technology play a critical role in achieving a sustainable future and dealing with the significant global challenges include natural disaster, water shortage, food security and land filling problem. In dealing with these issues, the involvement of scientists, researchers, academicians and engineers is a must. It has achieved revolutionary breakthrough and is booming, also entered into the new development era. New techniques profoundly changed the research methods and tools of the applied science, and promoted rapid development of the whole natural sciences.

We are indebted to those who served as chairpersons. Without their support, the conference could not have been the success that it was. We also acknowledge the authors themselves, without whose expert input there would have been no conference. We would also like to record our appreciation for the work of the officials-IFERP for their effort in organizing & assembling the conference proceedings and all the ways. Finally, it is appropriate that we record our thanks to our fellow members of Sairam family.

Prof. C. Sivaprakash
Program Chair
Professor & Head (ECE)
SSCE, Anekal

Dedicated to our beloved Founder Chairman

He is a born fighter. He fought adversity in his childhood. Once his mind was made up to start educational institutions, hurdles and setbacks could neither deter his progress nor dampen his enthusiasm. His dedication and devotion towards his crusade is contagious and it rubs on everyone who comes in contact with him.

May his tribe grow!

Sairam INSTITUTIONS

THE INSPIRATION...

Born into a typical middle-class family, MJF. Ln. Leo Muthu began his career as a government employee and rose to become a highly successful entrepreneur Band made all his fortune from real estate business spread across south India.

Despite being a busy and highly successful businessman, he always found enough time and had the passion to serve the society. He always wanted to make a significant contribution to the society.

He was actively associated with the Lion's movement and was instrumental in starting "The Academy for Blind" and "Home for Aged" under the community service programme of the lions Club. Besides, he is also actively associated with a large number of educational, social and Medical activities in south India. It was his dream to build a school, and thus was born Sai matriculation school in the year 1989.it was established with the primary goal of providing educational services to all sections of society. And it marked the birth of Sairam Group of Institutions. It was just the beginning...

Many more institutions followed in the next few years. Sri Sairam College of Engineering was started in the year 1997 and ever since it remains as the flagship institutions of the Sairam group of institutions. In the span of two decades Sairam Group institutions has grown both in size and reputation. Today Sairam Group of Institutions with 23 institutions including 3 Engineering colleges, educate thousands of students every year in variety of subjects ranging from Engineering, Polytechnic to Indian System of Medicine and teacher training through exemplary and exceptionally skilled staff. Today, Sairam Group of Institutions has become a name synonymous with quality education.

Devoted and highly qualified faculty, well-equipped laboratories, full–fledged library, playground, cafeteria and transport facilities are common features of Sairam Institutions. On the whole, a healthy atmosphere providing all-round education is what best describes a Sairam Institutions. MJF.Lion. Leo Muthu, has devoted his life to the cause Education and social activities. Through he is not with us today, the vision and values set by him will continue to guide us excel in the field of education.

In Short MJF. Ln. Leo Muthu is a man with golden dreams & a never–ending enthusiasm of converting dreams in to reality.

Chief Executive Officer

Sri. Sai Prakash LeoMuthu

Chief Executive Officer
Sairam Institutions

MESSAGE

A warm greeting to everyone...

I am very delighted to congratulate and appreciate the Department of Electronics and Communication Engineering and Department of Mechanical Engineering in organizing the 5th International Conference on Applied Science Engineering and Technology (ICASET 2018) on May, 17th & 18th, 2018 in Sri Sairam College of Engineering, Bengaluru.

I wish that this conference will be informative, memorable, and productive for participants and is look forward for some constructive technological innovations that result from your networking and discussions. I hope that this conference would certainly induce innovative ideas among the participants paving way for new inventions and new technologies in the Engineering Sector.

I wish all the delegates and participants a great time at Sairam

SAI PRAKASH LEOMUTHU

Principal

Dr. Y. Vijayakumar

Conference Chair & Principal
Sri Sairam College of Engineering, Anekal, Bengaluru-562016

MESSAGE

Our founder chairman's vision to uplift the condition of mankind through the quality education, we are in continuous march of our mission of by actuating to achieve the vision.

I am very proud to propel my hearty signals of greetings to the organizing committee, staff, and students of Sri Sairam College of Engineering. We, as fast developing institute 6th in Bangalore, 13th in Karnataka and 90th in India by various magazines, provide high–end project based technical education to inculcate the knowledge and skill required by the industry. To reduce the gap and getting acceptance from Industry, we are establishing a socio technical Innovative project oriented ambience in the campus.

I myself happy to convey and claim that we have almost achieved the same so that, with learning environment of Students in class and outside the class, is reached to the stage such that the students are now self-motivated to involve themselves in such extra value added program like industry–oriented based programs, state and centre government sponsored projects such as Smart India Hackathon etc., resulted the award winning of 1 lakh cash prize and many more...

This is not the end of our journey; we are committed to enhance the same to cross the national border to be recognized as international award institute in India, which definitely will be only possible with this type of International Conferences where knowledge sharing will take place.

I am proudly exultant to the Department of Electronics & communication Engineering and Department of Mechanical Engineering together organizing again 5th International Conference on Applied Science and Technology in the campus.

I am confident that there will be value addition at the end of the Conference and wish for the grand success!

Dr. Y. VIJAYAKUMAR

Vice-Principal

Dr. B. Shadaksharappa

Vice Principal & HOD-CSE
Sri Sairam College of Engineering, Anekal, Bengaluru-56201

MESSAGE

It is a phenomenal indulgence to organize the 5th International Conference on Applied Sciences, Engineering and Technology (ICASET – 18). The expertise of teaching and learning Methodologies are premeditated to be incessantly brilliant and inventive. Consequently, we espoused the most promising Insufficiency and enriched them to be a proficient builder for social change. Our institution is well known for engendering proficient engineers every year, contributing in the process of National Development by providing quality education. All our initiated endeavors are found affluent and exultant, accomplished through incessant procedures. Research oriented academic culture has to be nurtured with an ambiance shaped.

On this promising indulgence, I wish all the students and staff to achieve the proposed objectives of excellence through incessant hard work.
Wish you all the very best!!

Dr. B. SHADAKSHARAPPA

Management Representative

Dr. R. Arunkumar

Management Representative
Sri Sairam College of Engineering Anekal, Bengaluru-562106

MESSAGE

I consider that holding an international conference would give a new impulse to the normalization in the Engineering Science & Technology. Sairam always give topmost priority to the quality of education and research. The opportunities which will be provided in the conference are enormous for the students and academicians. As an integral part, the 5th International Conference on Applied Sciences Engineering and Technology (ICASET 2018) provides international forums for scientists and engineers from academia and industry to exchange and share their experiences, research results, and new ideas on trending and emerging topics on Applied Science, Engineering and Technology. I look forward to an exciting week of insightful presentations, discussions, and sharing of technical ideas with colleagues from around the world. Organizing an international conference is a great contribution to the research community and it requires tremendous effort.

I congratulate the team for their efforts in organizing this conference on 17th & 18th May 2018 in Sri Sairam College of Engineering, Anekal, Bengaluru and my heartfelt wishes to all participants.

Dr. R. ARUNKUMAR

HOD Message

Prof. BALAJI.V

Program Chair
Professor & Head- Dept of MECH
Sri Sairam College of Engineering, Bengaluru

MESSAGE

We welcome you to the "5th International Conference on Applied Science Engineering and Technology (ICASET-18)". The event is going to be held on 17th – 18th May 2018, organized by Sri Sairam College of Engineering, Bengaluru in association with IFERP. The ICASET-18 provides an opportunity to research scholars, delegates and students to interact and share their experience and knowledge in technology application.

ICASET-18 is fortunate to attract a high interest among the community, and the high number of submissions provided an excellent opportunity for a high-quality program. The main program of ICASET-18 covers two days and includes streams of parallel sessions. The program is further enriched by keynote presentations offered by world-renowned researchers in the field. I am grateful to all authors who trusted us with their work; without them there would be no conference.

The final result would not have been possible without the dedication and hard work of many colleagues. Special thanks are due to the Conference Chair, Track chairs, Session chairs, the members of the Technical Program Committees, and to all external Referees for the quality and depth of the reviews, and their sense of responsibility and responsiveness under very tight deadlines. Thank you all.

We hope that the proceedings will serve as a useful reference of the state-of-the-art in application-specific systems research.

Prof. BALAJI.V

HOD Message

Prof. K. V. Malini

Professor & Head, Dept. of EEE
Sri Sairam College of Engineering, Anekal, Bengaluru - 562016

MESSAGE

It gives me immense pleasure to pen that Sri Sairam College of Engineering is organizing an International Conference on Applied Science, Engineering and Technology ICASET-18 in association with the Institute for engineering research and publication (IFERP) on 17th & 18th May 2018, Bengaluru.

The applications of any advanced science and engineering is to facilitate the nation for its development. The conference is aimed to serve as a premier venue for the dissemination of leading edge research in Applied Science and related technologies.

I hope that this conference would certainly light up innovative ideas by paving way to new inventions and integrate new technologies in the Science & engineering sector and the deliberations in the conference will help researchers from academia, industry and the conference will provide a platform for initiating collaborative research projects.

All the best

Prof. K. V. MALINI

HOD Message

Dr. P. Gangavathi

Professor & Head Department of Science & Humanities
Sri Sairam College of Engineering, Anekal, Bengaluru-562016

MESSAGE

It's a privilege to invite all the authors to the "International conference on applied science engineering and technology" to be held on 17th and 18th May 2018 at Sri Sairam College of Engineering. The conference is organized in associations with the IFERP to provide an opportunity to the research scholars to share their views and knowledge in the realm of technology.

Anticipating the participants to utilize the giant platform to accomplish their objectives. The initiative of ICASET is to fetch all the academicians, researchers, and industry professionals together to share the latest trends in the arena of applied sciences, engineering, and technology.

I wish all the best to the participants and congratulate the organizing team as well.

Dr. P. GANGAVATHI

ICASET – 18

5th International Conference on Applied Science Engineering and Technology (ICASET-18)

Keynote Speakers

सीएसआईआर-के न्द्रीय्इलेक्ट्रॉनिकी अक्रिानिकी तयरिनिकी अक्रिअ०ासिसरअ्सि् र
CSIR-CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE
(निकी ि०ज्ञरअ्त प्रौद्योनिकी ि०क्रिमिअरलय/ MINISTRY OF SCIENCE & TECHNOLOGY, तररत्सरकरर / GOVT. OF INDIA)
निकी ि०लरअी, ररजा् रअ (तररत)/ Pilani, Rajasthan - 333031 (INDIA)

Dr. Ashish Kumar
Quick Hire Scientist,
CSIR-CEERI Pilani Rajasthan, Indian

BIOGRAPHY

It is a pleasure to note that Institution for Engineering Research and publications (IFERP) and Sri Sairam College of Engineering is organizing the 5th International Conference on Applied Science Engineering and Technology (ICASET -2018). I understand there is very enthusiastic response to the Call for Papers both from within and outside the country. Conferences of this nature provide a platform to young researchers, faculty members and industry professionals to present their research and development work and get feedback and suggestions to improve their quality of work. In the present era, Integration of different areas of applied science with engineering and technology has been witnessing both in the research and technology development directions and is need of the time. This Conference will provide an opportunity to exchange ideas on latest innovation and their applications to solve challenging problems facing by civilization and thus serve very useful to students, teachers, and practicing industry professionals. I take this opportunity to express my sincere appreciation to conference chair and his team, IFERP, for their attempt in holding 5th international conference. I am sure the delegates will carry with them pleasant memories of the Conference. I wish the delegates very productive technical interactions and enjoyable stay.

(Dr. ASHISH KUMAR)

CSIR-CEERI Pilani

الجامعة الإسلامية العالمية ماليزيا
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA
(Company No. 101 067-P)

QUALITY SYSTEM SIRIM
STANDARDS MALAYSIA
MS ISO/IEC 17021:2011
QS 02121999 CB 01
CERTIFIED TO ISO 9001:2008
CERT. NO. : AR 3074

KULLIYYAH OF ENGINEERING

Dr. S. A. Khan
Professor
Dept. of Mechanical Engineering, Faculty of Engineering
International Islamic University of Malaysia (IIUM) Kuala Lumpur, Malaysia

BIOGRAPHY

I am delighted to know about the event being organised at Sai Ram College Bengaluru, Karnataka, India. I am impressed about the themes and targets which are selected for discussions in this Conference and addressing the sensible issues. Hoping that, the stream of scientist/Researchers will discuss about issues to make a peaceful life for livelihood on the earth planet. The other subjects to be discussed in this platform are design, manufacturing, mechatronics, renewable energy, sustainable development and automotive technology. It is strongly believed that these proceedings will serve as an example to demonstrate the depth of current innovations and research and also acts as a reliable source of information for making significant advances in the area of Engineering and Technology.
I express my best wishes to this event.

(Dr. S. A. KHAN)
Professor
IIUM, Kuala Lumpur, Malaysia

ICASET -18

5th International Conference on Applied Science Engineering and Technology (ICASET-18)

Anekal, Bengaluru, 17th-18th May2018

Organizing Committee

Patron

Sri.SaiPrakash Leo Muthu
Chief Executive Officer
Sairam Institutions

Conference Chair

Dr.Y.Vijayakumar
Principal

Advisory Board

Dr.B.Shadaksharappa,Vice Principal
Dr. R. Arunkumar, Mangmt Representative

Program Chair

Prof.C. Sivaprakash, Professor & Head (ECE)
Prof. V. Balaji, Professor & Head (MECH)

Advisory Committee

- *Dr. R. Arunkumar, Management Representative, SSCE, Bengaluru.*
- *Dr. Vijayasimha Reddy, Principal, Vemana IT, Bengaluru.*
- *Dr. K. V.Mahendra, Principal, JIT, Bengaluru.*
- *Dr. C. P. S. Prakash, Principal, DSCE, Bengaluru.*
- *Dr. T. N.Srinivasa, Principal, AMCEC, Bengaluru.*
- *Dr. Pradeep B Jyothi, Principal, PDIT, Hospet.*
- *Dr. P. A. Patil, Director-R&D, Think & Ink Science Foundation, Bengaluru.*
- *Dr. Basavaraj S Patil, Data Scientist, Predictive Research Pvt. Ltd., Bengaluru.*
- *Dr. Y. Vijayakumar, Principal, SSCE, Bengaluru.*
- *Dr. B. Shadaksharappa, Vice Principal, SSCE, Bengaluru.*
- *Dr. Manju Devi, Professor & Head (ECE), TOCE, Bengaluru.*
- *Dr. A. Pauline, Professor & Head (CSE), SEACE, Bengaluru.*
- *Dr. S. Sujatha, Professor & Head (E&I), ACE, Hosur.*
- *Dr. P. A. Vijaya, Professor & Head (ECE), BNMIT, Bengaluru.*
- *Dr. PreethaCharan, Professor (ECE), TOCE, Bengaluru*

Organizing Committee

- *Dr. P. Gangavathi, Professor & Head (S&H), SSCE, Bengaluru.*
- *Prof. K.V. Malini, Professor & Head (EEE), SSCE, Bengaluru.*
- *Prof. V. Bheemeswara Reddy, Professor & Head (T&P), SSCE, Bengaluru.*
- *Dr. C. Anil Kumar, Professor (Mech), SSCE, Bengaluru.*
- *Prof. B. Raghavendra Rao, Assistant Professor (CSE), SSCE, Bengaluru.*
- *Prof. A. Poonghuzhali, Assistant Professor (ECE), SSCE, Bengaluru.*
- *Prof. R. Gunasekari, Assistant Professor (EEE), SSCE, Bengaluru.*
- *Prof. R. Deepa, Assistant Professor (ECE), SSCE, Bengaluru.*
- *Prof. R. Aruna, Assistant Professor (ECE), SSCE, Bengaluru.*
- *Prof. J. Durai, Assistant Professor (Mech), SSCE, Bengaluru.*
- *Prof. Manjula. G, Assistant Professor (CSE), SSCE, Bengaluru.*
- *Prof. B. Srilatha, Assistant Professor (ECE), SSCE, Bengaluru.*
- *Prof. Madhava Rao. J, Assistant Professor (EEE), SSCE, Bengaluru.*
- *Prof. Aruna Shenbog, Assistant Professor (Mech), SSCE, Bengaluru.*
- *Prof. N. Bhuvaneswari, Assistant Professor (ECE), SSCE, Bengaluru.*
- *Prof. Vinoth Kumar Bridar, Assistant Professor (MECH), SSCE, Bengaluru.*
- *Prof. Santhosh Kumar. N, Assistant Professor (ECE), SSCE, Bengaluru.*
- *Prof. R. Vijai, Assistant Professor (MECH), SSCE, Bengaluru.*
- *Prof. Savitha. H. S, Assistant Professor (ECE), SSCE, Bengaluru.*
- *Prof. Ramya. R, Assistant Professor (MECH), SSCE, Bengaluru.*
- *Prof. Halesha. H. R, Assistant Professor (ECE), SSCE, Bengaluru.*
- *Prof. Rajesh Kumar. N, Assistant Professor (MECH), SSCE, Bengaluru.*
- *Prof. Gowri. P, Assistant Professor (ECE), SSCE, Bengaluru.*
- *Prof. Sachin T, Assistant Professor (ECE), SSCE, Bengaluru.*
- *Prof. J. Suganya, Assistant Professor (ECE), SSCE, Bengaluru.*

CONTENTS

Sl.NO	TITLES AND AUTHORS	PAGE NO
1.	Intelligent Cost Effective Voice Based Personal Assistant for the Physically Disabled ♠ ***Aftab Faisal*** ♠ ***Akbar Faisal*** ♠ ***Aneesh Ali*** ♠ ***Ashok Malviya***	1
2.	The Economics of Beverage Price In Kerala a Study With Reference To Wayanad District ♠ ***Anathavalli P*** ♠ ***Adwaitha K Suresh*** ♠ ***Revathy K S***	2
3.	A Study on Partial Replacement of Fine Aggregates byQuaary Dust and Cemnt with Fly Ash ♠ ***Angadikudethi Mohan Kumar*** ♠ ***B.Moorthi*** ♠ ***P.Yugandar*** ♠ ***V.Deepu*** ♠ ***Shaik Jaheed Ali***	3
4.	A study on Causes and Prevention of Building Cracks in Concrete Structures ♠ ***Angadikudethi Mohan Kumar*** ♠ ***Dr .D. Pavan Kumar***	4
5.	Automated Coconut Tree Climber and Coconut Feller Machine ♠ ***Anand K*** ♠ ***Vinod Kuamr Biradar*** ♠ ***Basavaraj.H*** ♠ ***Shiva Aladale*** ♠ ***Srikanth Reddy***	5
6.	Smart Sensor System for Agricultural Chronology ♠ ***G Manjula*** ♠ ***John.V.J*** ♠ ***Mahesha.D*** ♠ ***Meghana.D*** ♠ ***Chaithra*** ♠ ***Sudhakar.M***	6
7.	Fire Fighting Drone ♠ ***Mr .Muthuvel A*** ♠ ***Surya S*** ♠ ***Rajesh C*** ♠ ***Venkatesh R*** ♠ ***Vishnu Varman K***	7

CONTENTS

Sl.NO	TITLES AND AUTHORS	PAGE NO
8.	Waste Plastic Pyrolyzed Oil ♠ ***Rajini R*** ♠ ***Prsann joshi*** ♠ ***Souvik Bhunia*** ♠ ***Venkatesh*** ♠ ***Goutham H R***	8
9.	Study on Mass Flow Rate in Labrynith Seal using CFD Analysis ♠ ***Aprameya C R*** ♠ ***J Sharana Basavaraja*** ♠ ***Rajesh P***	9
10.	New ACDMA Encoding and Decoding Technique for Network-on-Chip ♠ ***Archana.M*** ♠ ***Dr.N.V Uma Reddy***	10
11.	"SIRASTRANA"-A Smart Helmet for Air Quality and Hazardous Event Detection for the Mining Industry ♠ ***Raghavendra Rao B*** ♠ ***Karthik NS*** ♠ ***NA Poojitha*** ♠ ***Divya L*** ♠ ***Nandini N***	11
12.	Hand Gesture Based Survivellence Robot ♠ ***Mrs.Shalini K*** ♠ ***Sharath sagar reddy*** ♠ ***Manasa*** ♠ ***Jhansi Rani M*** ♠ ***Arun S***	12
13.	A "Dustless Environment" Using Neagh Device ♠ ***Neesu Dubey*** ♠ ***Neha Jha*** ♠ ***Pragati Katiyar*** ♠ ***Ramesha T.H*** ♠ ***T.K Pradeep Kumar***	13
14.	Library Characterization of D Flip-Flop ♠ ***Avinash N J*** ♠ ***Sowmya Bhat*** ♠ ***Renita Pinto*** ♠ ***Chetan R*** ♠ ***Kusuma Prabhu***	14
15.	Cryptographic Predicate Encipherment for Multirecivers on Online Community ♠ ***Brunda C***	15

CONTENTS

Sl.NO	TITLES AND AUTHORS	PAGE NO
16.	Black Spots Identification on Pinjore to Baddi Road ♠ ***Chetna*** ♠ ***Navdeep Mor*** ♠ ***Dr. Hemant Sood***	16
17.	"EDUSCIENZA"-Smart Learning using Augmented Reality" ♠ ***Dr. B. Shadaksharappa*** ♠ ***Suraj S*** ♠ ***Spoorthi S*** ♠ ***Navyashree R*** ♠ ***Nithin Kishore K***	17
18.	A Model for Ordering In Restaurant Based On QR Code without Presence of a Waiter at the Table ♠ ***Dr. B. Shadaksharappa*** ♠ ***KotraChaithanya*** ♠ ***Suresh .J*** ♠ ***Mahesh R*** ♠ ***Deepak Kumar***	18
19.	"Samarthyam" - Advance Footstep Power Generation ♠ ***Bindu Madavi*** ♠ ***Sandhya A*** ♠ ***Sahana T S*** ♠ ***Pooja B N*** ♠ ***Priya J***	19
20.	Solar PV based BLDC Motor Driven Water Pumping System using Zeta Converter ♠ ***Deepak Saw*** ♠ ***Samar Anand*** ♠ ***Dr Kartik Chandra Jana***	20
21.	Tensile Properties of Polypropylene/Graphite/Carbon Fiber Hybrid Composites ♠ ***Devendra Vyas***	21
22.	Machine Learning Approaches for Data Analytics and Modeling ♠ ***Dr.M.Vinoth Kumar*** ♠ ***N.Girish*** ♠ ***S. Babu Kumar***	22
23.	Global Bus Monitoring and Alert System ♠ ***Raghavendra Rao B*** ♠ ***Ganapriya R*** ♠ ***Monika S*** ♠ ***Jyothi Tiwari P*** ♠ ***Kavitha Lakshmi B***	23

CONTENTS

Sl.NO	TITLES AND AUTHORS	PAGE NO
24.	"HEAD MOVEMENT" Controlled System to Assist the Physically Challenged Using IoT ♠ ***Reji Thomas*** ♠ ***Anoop Daewoo M*** ♠ ***VK Manasa*** ♠ ***Aishwarya M*** ♠ ***Rakesh Kumar Yadav G***	24
25.	A Smart Intiative for Automobiles and Road Safety ♠ ***Mrs. Nisha MS*** ♠ ***Nanda Kumar V*** ♠ ***Karthika K*** ♠ ***Latha S*** ♠ ***Geethika k***	25
26.	KRUSHI RAKSHAK- A New Approach of Protection & Intimations for Agricultural Land ♠ ***G Manjula*** ♠ ***Keerthana R*** ♠ ***Aishwarya S*** ♠ ***Navya B V*** ♠ ***Madhu Shree E***	26
27.	Mechanical Modeling and Testing of 3d Printed Material ♠ ***Hemanth B R***	27
28.	A Study on Manufacturing of Bricks using Black Cotton Soil and Red Soil ♠ ***Hubli Kiran*** ♠ ***Beedimani Priyanka*** ♠ ***Aishwarya*** ♠ ***Karale Suneel***	28
29.	Crash Analysis and Reinforcements Design for Medium duty trucks for Rollover Crash Accidents ♠ ***Hussain Pasha***	29
30.	Krushi Roboter-"Future Farmer's Friend ♠ ***Ms.Sowmya A M*** ♠ ***Ramya M*** ♠ ***Ranjith C*** ♠ ***Madhusudhan R*** ♠ ***Ranjitha V***	30
31.	Automatic Pill Dispenser ♠ ***Mrs.Manjula G*** ♠ ***Ms.Udaysree P*** ♠ ***Ms.Ranjitha S*** ♠ ***Ms.Sangeetha L*** ♠ ***Ms.Priyanka***	31

CONTENTS

Sl.NO	TITLES AND AUTHORS	PAGE NO
32.	Detection of Broken Railway Tracks and Obstacles by Ultrasonic Technology ♠ ***Manish Dixit*** ♠ ***Bitan Paul*** ♠ ***Drishant Sharma*** ♠ ***Manik Reshi*** ♠ ***Jeyadevan S***	32
33.	Smart Health Using Andriod Application ♠ ***Mrs. Saanjanna*** ♠ ***Harshitha HB*** ♠ ***Chekuri Lokesh*** ♠ ***Gobidasan M*** ♠ ***Shweta Nalatwad***	33
34.	Swagger Machine to Survey the Ocean ♠ ***P.Kalamani*** ♠ ***Karthikeyen.G*** ♠ ***Ranjani.R*** ♠ ***R.P.Sandhya*** ♠ ***Ramyashree.G***	34
35.	AI Based Novel Software Validation Paradigm Through Defect Detection And Diagnosis ♠ ***Kalaivani K*** ♠ ***Rajat Singh***	35
36.	Coordination of Ems with Hospital for EnhancingPatient Safety during Emergency Case ♠ ***Manikandan*** ♠ ***Ramesh***	36
37.	Integration with Moisture Meter for Monitoring Stored Food Grains ♠ ***C.Sivaprakash*** ♠ ***Chaithra.S*** ♠ ***Dilip Kumar*** ♠ ***Shubham Trivedi*** ♠ ***Vandana***	37
38.	ATM Security using Fingerprint Authentication and OTP ♠ ***Aruna R*** ♠ ***Sudha V*** ♠ ***Shruthi G*** ♠ ***Usha rani R*** ♠ ***Sushma V***	38
39.	Automatic Gas Cylinder Management ♠ ***Dhanya G.S*** ♠ ***MulumTejas*** ♠ ***Mujasim Pasha I*** ♠ ***Raghavendra D*** ♠ ***Veeresh K.R***	39

CONTENTS

Sl.NO	TITLES AND AUTHORS	PAGE NO
40.	IOT based Fault Diagnostic Device for Photovoltaic Panels ♠ ***ShanthaMoorthy S*** ♠ ***Vanajakshi M*** ♠ ***Varsha R*** ♠ ***Spurthy*** ♠ ***Rahul Kolekar*** ♠ ***V.K. Tivari***	40
41.	Smart Garbage Detection System Using Iot ThroughMobile App ♠ ***A poonguzhali*** ♠ ***Soundarya R*** ♠ ***Priyanka N*** ♠ ***Tejaswini A*** ♠ ***Pavithra M***	41
42.	Design, Analysis, Simulation and Fabrication of a High Torque & Light weight Gearbox for ATV. ♠ ***Manoneet Kumar*** ♠ ***K.Brahma Raju*** ♠ ***Chatapathi Raju***	42
43.	Comparitive Study on Radio Frequency Power Harvesting Technique ♠ ***Meghana B.S*** ♠ ***Navaneetha G.R*** ♠ ***Jayanth H.J*** ♠ ***Pooja G.M*** ♠ ***Ashritha Vinay***	43
44.	Implementation of Convolution Neural Network in Processing of Satellite Video ♠ ***Ankitha Venkatesh*** ♠ ***Asha R*** ♠ ***B Nagarushitha*** ♠ ***Jami Sai Bandhavi*** ♠ ***Mr Vinod B Durdi***	44
45.	Implementation of Area and Memory Efficient Combined ByteSub and InvByteSub Transformation for AES Algorithm ♠ ***Sushma D K*** ♠ ***Dr. Manju Devi***	45
46.	Smart Rapid Controller ♠ ***C. Sivaprakash*** ♠ ***Dhanya G S*** ♠ ***Roopa M*** ♠ ***Lakshmi G C*** ♠ ***Hemalatha D*** ♠ ***Ishwarya.B***	46

CONTENTS

Sl.NO	TITLES AND AUTHORS	PAGE NO
47.	Smart Shopping Cart for Automatic Billing in Supermarket ♠ ***G V Raja*** ♠ ***Manoj Kumar S*** ♠ ***K N Kashyap*** ♠ ***Kiran S*** ♠ ***Mohammad Ibrahim***	47
48.	Decision Support System for Finding Fetal Heart Images Using Image Processing ♠ ***Mrs Kavitha D*** ♠ ***Mr Aman Mujawar*** ♠ ***Mr Kartik Kohli*** ♠ ***Ms Kavitha V*** ♠ ***Ms Kavya MR***	48
49.	Algorithms used in Smart Waste Management for Routing Trucks in IoT – A Survey ♠ ***Peddi Karthik*** ♠ ***Ravi Ashish*** ♠ ***Ananda Kumar S*** ♠ ***Mahesh G***	49
50.	Smart Street Lighting System ♠ ***Savitha H S*** ♠ ***Kavya S B*** ♠ ***Annapurna S*** ♠ ***Chandrashekar S*** ♠ ***Sunil R***	50
51.	Android Controlled Wildlife Observation Robot ♠ ***Deepa.R*** ♠ ***Neha.M*** ♠ ***H.Akash Deepak*** ♠ ***Shivakumar S*** ♠ ***Namrata.B***	51
52.	Implementation of Rover for Mars Communication ♠ ***C.Sivaprakash*** ♠ ***Gulzar Begum.Z*** ♠ ***Gracy Priyanka.D*** ♠ ***Shubha.L.,*** ♠ ***Sangeetha.B.V*** ♠ ***Vishal S Shabadi***	52
53.	Spasthart Speed Breakers ♠ ***Geetha R*** ♠ ***Prajwal H M*** ♠ ***S Jayanth*** ♠ ***Abarna.R.J*** ♠ ***Punithkumar***	53

CONTENTS

Sl.NO	TITLES AND AUTHORS	PAGE NO
54.	Stabilization of Voltage by Using Buck Converters for Protection of Dc Microgrids ♠ ***Suganya.J*** ♠ ***Nuthan S M*** ♠ ***Swarna Rekha A C*** ♠ ***Bhavyashree. H. N***	54
55.	Smart Home Automation Using Internet of Things (IoT) ♠ ***Ragam Krishna Naveen***	55
56.	Simulation Studies of Composite Insulators used in High Voltage transmission ♠ ***Rahul P R*** ♠ ***Rohit P R*** ♠ ***Ms Keka Mukhopadhyaya***	56
57.	Power and Area Efficient Approximate Multiplier for Image Processing Application ♠ ***Rakesh Huidrom***	57
58.	Smart Auto Agricare ♠ ***Santosh Kumar N*** ♠ ***Chandrashekar*** ♠ ***Manoj H*** ♠ ***Ravi kiran C B*** ♠ ***Sharath kumar S***	58
59.	Smart Metro Station for Public Safety ♠ ***P.Venogopal*** ♠ ***Gayithri S P*** ♠ ***Pavithra N*** ♠ ***Prakruthi P*** ♠ ***Sangeetha V***	59
60.	Advanced Driver Assistance Systems for Pedestrian Crossing Detection ♠ ***B.Srilatha*** ♠ ***Ramyasri R*** ♠ ***Gnanesh Kumar K*** ♠ ***R. D. Vidya Rani***	60
61.	Analysis and Efficiency Exploration of Data Mining Classifiers for Chronic Kidney Disease prediction ♠ ***Ranjani Murali***	61
62.	Instantaneous Buck-Boost converter for Battery Powered Devices ♠ ***Renita Pinto*** ♠ ***Avinash N J*** ♠ ***Kusuma Shenoy*** ♠ ***Sowmya Bhat***	62

CONTENTS

Sl.NO	TITLES AND AUTHORS	PAGE NO
63.	Design and Implementation of Underwater Autonomous Vehicle (UAV- VARAUNA) ♠ ***C. Sivaprakash*** ♠ ***Kusuma.P*** ♠ ***Jeevan.N.R*** ♠ ***Kishore Kumar.S*** ♠ ***Dr. Pauline. A***	63
64.	An Intelligent Power Shutdown System for Power Saving Applications ♠ ***N. Bhuvaneshwari*** ♠ ***C. Sivaprakash*** ♠ ***Abinaya shree.G*** ♠ ***Malai Selvan.G*** ♠ ***Ranjith.Y***	64
65.	Iot Based Water Care Centre for Lakes in Bengaluru ♠ ***P. Gowri*** ♠ ***Chaithra Ontakar*** ♠ ***Navyashree R*** ♠ ***Ranjitha R*** ♠ ***Rashmi V***	65
66.	Smart Helmet for Underground Workers ♠ ***K.P Linija Shylin*** ♠ ***Prathap B.P*** ♠ ***Sindhu R*** ♠ ***Sushmitha B.R*** ♠ ***Swati Nagaraj Mesta***	66
67.	Wirelength and Routability for Fixed Outline Networks ♠ ***S,P.Kalaiarasi*** ♠ ***Mr.B.Srinath*** ♠ ***P.Arunapriya***	67
68.	Protect Against Blocking the Stochastic Game for Cognitive Radio Networks ♠ ***S.Udhayakumar***	68
69.	Iot Based Multi-Level Parking System ♠ ***Fairozkhan*** ♠ ***Telirekha*** ♠ ***Rooparaj S***	69
70.	Intelligent Detection of Pollution System ♠ ***Mohammed Abreeth M*** ♠ ***Rakesh B S*** ♠ ***Pradeeshan K*** ♠ ***Vikram J*** ♠ ***Gopinath k***	70

CONTENTS

Sl.NO	TITLES AND AUTHORS	PAGE NO
71.	Pod the Future Car ♠ ***Madhavarao J*** ♠ ***Mallikarjunraddy*** ♠ ***Chandrashekhar V*** ♠ ***Kumar N A*** ♠ ***Saiprasad K V***	71
72.	SOLAR POWERED HETEROGENEOUS WEARABLE ADAPTOR-Charger for the people onmove ♠ ***Malini K V*** ♠ ***Jayasudha.L*** ♠ ***Kavya. K*** ♠ ***Legeswaran.V*** ♠ ***Saipriyal.M*** ♠	72
73.	A Novel Tracker to Catch Chain Snatchers - MEMS Technology ♠ ***Sowmya S*** ♠ ***Dr. Raghavendra Rao***	73
74.	Multi-Purpose Solar Operated Agriculture Machin ♠ ***Vijai R*** ♠ ***Santhosh H K*** ♠ ***Satish H*** ♠ ***Rahul M*** ♠ ***Rajashekhar R***	74
75.	Automatic Mobile Railway Bridg ♠ ***Rajesh Kumar*** ♠ ***Shashank.E*** ♠ ***Yahiya Ahmed*** ♠ ***Suresh Babu*** ♠ ***Sharath Patel***	75
76.	Generation of Electricity by Using Exhaust from Bik ♠ ***Mr. Durai J*** ♠ ***Lohith Kumar C*** ♠ ***K Bhanu Kiran*** ♠ ***Kiran Kumar T*** ♠ ***Karthik P***	76
77.	Implementation of Area and Memory Efficient Combined ByteSub and InvByteSub Transformation for AES Algorithm ♠ ***Sushma DK*** ♠ ***Dr. Manju Devi***	77

CONTENTS

Sl.NO	TITLES AND AUTHORS	PAGE NO
78.	Study of Mechanical and Wear Properties of Hybrid Composite Materials with Nano Fillers for Elevated Temperature Applications ♠ ***Swarnakiran S*** ♠ ***Sushanth S J*** ♠ ***Praful M Dev***	78
79.	Water Pump Using Scotch-Yoke Mechanism ♠ ***Aruna shanbog*** ♠ ***Murali M*** ♠ ***Nithin kumar N*** ♠ ***Muruli J S*** ♠ ***Yuvaraj GY***	79
80.	Al6061-Basalt and Zirconia Hybrid Composite ♠ ***Dr. Anil Kumar C*** ♠ ***Sharath kumar M*** ♠ ***Vishwas Manohar*** ♠ ***Supreeth D V*** ♠ ***Gurunandan H M***	80
81.	Involute Type Vertical Axis Wind Turbine for Extracting Low Wind ♠ ***Sachin Ananth Telang*** ♠ ***Vageesh.P*** ♠ ***Sunil.K*** ♠ ***Tejasimha.B*** ♠ **Shekhar.K**	81
82.	Performance Analysis of Sparsifying Transforms in the Reconstruction of MRI ♠ ***Vidyashree*** ♠ ***Shrividya G***	82
83.	Verification of JESD204BTX Soft IP using Universal Verification Methodology (May 2018) ♠ ***Vinay P*** ♠ ***ShylaShree N***	83
84.	Multifunctional Mulching Machine Operations ♠ ***Sridhar CS*** ♠ ***Mohan N*** ♠ ***Ravi D Kalleshnavar*** ♠ ***Manthesh jeeragal*** ♠ ***Nishanth***	84
85.	Fabrication of Staircase Climbing Vehicle ♠ ***Balaji V*** ♠ ***Pavan kumar N*** ♠ ***Ranjith G*** ♠ ***Adarsh J*** ♠ ***Praveen Kumar R***	85

CONTENTS

Sl.NO	TITLES AND AUTHORS	PAGE NO
86.	Design of a Fixture using Reverse Engineering and CAD/CAM Approach ♠ ***Ashish Mor*** ♠ ***C.M.Krishna***	86
87.	Modelling and Analysis of Machining Characteristics of AlSiO2 composite made From rice husk on CNC Milling Machine ♠ ***Hemendra Patil*** ♠ ***C.M. Krishna***	87
88.	Study and Analysis of Temperature Distribution on AlSiC machining on EDM ♠ ***Kajal Vinayak*** ♠ ***C.M Krishna***	88
89.	Automatic Speed Breaker on Time Demand over Speed Controlling System ♠ ***Mr.Arun Kumar MR*** ♠ ***Lohith N Marabada*** ♠ ***M Arun*** ♠ ***Madan Kumar K*** ♠ ***Rajeev Kumar Ojha***	89
90.	Pipe Line Inspection Robot ♠ ***Prof. AnandK A*** ♠ ***Gundala Srihari*** ♠ ***Manoj S*** ♠ ***Abhishek Gupta*** ♠ ***Rajmohan Biradar***	90
91.	Automated Guided Vehicle Commuter System ♠ ***Balaji V*** ♠ ***Praful kumar BA*** ♠ ***Sunny Fernandes*** ♠ ***Manish Kumar*** ♠ ***Pranav Sre***	91
92.	An Algorithm to Perform Fusion of Partially Focused Images in Fuzzy Domain ♠ ***Meenu Manchanda***	92
93.	A Proficient DLAU Design for FPGA Implementation ♠ ***Ms. Vijayashree***	93
94.	Best practices in Grievance Handling Mechanism: a Study in Kerala ♠ ***Ms.Adithi Pradeep*** ♠ ***Ms.Alfiya Nihar*** ♠ ***Ms.Gopika Gopan*** ♠ ***Adv.Vinod Kumar K***	94

CONTENTS

Sl.NO	TITLES AND AUTHORS	PAGE NO
95.	Hydraulic Ram Pump ♠ ***Mr.Vinodkumar Biradar*** ♠ ***Abilash . R*** ♠ ***Ravi kiran .G*** ♠ ***Deepak nair*** ♠ ***Kishor kumar .B.R***	95
96.	Design Andfabrication of Pod Vehicle ♠ ***Aruna Shanbhog*** ♠ ***Vidya M R*** ♠ ***Karthik N*** ♠ ***Anushar*** ♠ ***J R Karthik***	96
97.	Automatic Leg UP Landing system ♠ ***R Vijai*** ♠ ***Chethan.B.R*** ♠ ***Arun kumar.S*** ♠ ***Dileep.B*** ♠ ***Vinay.H.P***	97
98.	Performance Analysis of Fault Identification and Recovery in MANET ♠ ***Muktarani Halawar*** ♠ ***Prof. Raghuram K M*** ♠ ***Dr. Shreedhar A Joshi***	98
99.	Ascendancy of Youth Tourism on Travel and Tourism Preferences in Kerala ♠ ***Vyshak K P***	99
100.	Nivartaka -an eco-Friendly Multipurpose Vehicle ♠ ***Divyaprabha*** ♠ ***Niharika S*** ♠ ***S Hemalatha*** ♠ ***Swetha B*** ♠ ***Princess R***	100
101.	Design and Impact Analysis of Go-Kart Vehicle ♠ ***Harish Babu L*** ♠ ***Aravind R*** ♠ ***Hari Prasath D*** ♠ ***Arun Prashath M*** ♠ ***Benedict Antony A*** ♠ ***Mittu Kumar Jha***	101
102.	Vehicle Accident Detection Using Black box System ♠ ***C Sharon RojiPriya*** ♠ ***Chaithra A*** ♠ ***Anitha A*** ♠ ***Sri Harsha B S*** ♠ ***Shaikh Mohammed Ahmed Raza***	102

CONTENTS

Sl.NO	TITLES AND AUTHORS	PAGE NO
103.	A study on Aluminum Nitradation process: Literature Survey and development of frame work for processing AlN ♠ ***Akarsha Kadadevaramath*** ♠ ***V. Auradi*** ♠ ***Prakash Kurma Raju***	103
104.	Design and Development of Boring Trepanning Assocation (Bta) Tool with Surface Finish Up To RZ 0.102µM and RA 0.587µM ♠ ***Baba Rupesh B***	104
105.	Automatic Street Light Control System Using Microcontroller ♠ ***Dr. B. Shadaksharappa*** ♠ ***Rakesh .G.R*** ♠ ***Punshiba Thingom*** ♠ ***Mallikarjuna***	105
106.	Auto-Smart Fertilizer ♠ ***Halesha H R*** ♠ ***Kavya G K*** ♠ ***Kavya D S*** ♠ ***Kavyashree N V*** ♠ ***Manjushree B R***	106
107.	Three Mode Steering Systems for Light Weight Automobile Vehicles ♠ ***Harish Babu L*** ♠ ***Arun Kumar N*** ♠ ***Avinash Sharma*** ♠ ***Kanthi Prashant Prabhu*** ♠ ***Shivakumar S Huded***	107
108.	Response of Retaining Wall to Support Ob Dump under Passive Earth Pressure Using Limit Equilibrium Method ♠ ***Chidanand M Jadar*** ♠ ***Harshith K R*** ♠ ***Darshini S Shekar***	108
109.	Smart Water Distribution System ♠ ***Lokeshwari M*** ♠ ***Amar R*** ♠ ***Karthik G***	109
110.	Real Time Water Quality Surveillance System ♠ ***Naveen Kumar S*** ♠ ***Monika R*** ♠ ***Nafeesa Sulthana N S*** ♠ ***Swathi R***	110

CONTENTS

Sl.NO	TITLES AND AUTHORS	PAGE NO
111.	Multidisciplinary Agri Bot ♠ ***Rajesh kumar.N*** ♠ ***Adithya.C*** ♠ ***Madan Kumar. L*** ♠ ***Akshay Kumar.V*** ♠ ***Girish.P***	111
112.	Hall Effects on Hydromagnetic Flow of a Jeffrey Fluid in an Asymmetric Channel with Peristalsis ♠ ***S. Jyothi1 , M. V*** ♠ ***Subba Reddy*** ♠ ***Gangavathi P***	112
113.	Design and Fabrication of Impact Attenuator for Supra SaeIndia ♠ ***Sachin Anant Telang*** ♠ ***Geera Rakesh kumar*** ♠ ***Munishyamireddy*** ♠ ***Madhuri.S*** ♠ ***Shyla.N***	113
114.	Studies on Biocompatibility of shape memory alloys: A Review ♠ ***Vybhavi Shivakumar*** ♠ ***A.G.Shivasiddaramiah*** ♠ ***C.Shashishekar***	114
115.	Traction Motor Control for Regenerative Braking In Hybrid Tracked Electric Vehicles ♠ ***Selvathai T*** ♠ ***Marin JC*** ♠ ***Jawahar A***	115
116.	An Effective Model for Mutagenesis Prediction Using Multi Relational Fuzzy Tree ♠ ***Dr. C.R.Vijayalakshmi*** ♠ ***Dr. P.G Sivagaminathan*** ♠ ***Dr.M.Thangaraj***	116
117.	Barriers in Understanding the Enunciation in English ♠ ***Mr P. Luther Benny*** ♠ ***Mr Vinayakaswamy Negalurmath*** ♠ ***Manoj V*** ♠ ***Prasanna R***	117
118.	ICT learning and its Butterfly Effects on Students' Academic Performance ♠ ***Adarsh S Kumar*** ♠ ***Akhila S Anil*** ♠ ***Bhanupriya L*** ♠ ***H Jyothilakshmy***	118

CONTENTS

Sl.NO	TITLES AND AUTHORS	PAGE NO
119.	Semi-automated Puffed Rice Machine Using Agricultural Waste Burnt Low Smoke Stove ♠ ***Anirudh Mallya U*** ♠ ***Ashwith I Mendonca*** ♠ ***Allan Loy D'souza*** ♠ ***Jonathan Rodrigues*** ♠ ***Manjunath Patel G.C*** ♠ ***Prasanna Kumar***	119
120.	Optimization of Clock Power in Full Chip Clock Distribution ♠ ***Akshata Mathad*** ♠ ***Namita Palecha*** ♠ ***Arpit A. Gandhi***	120
121.	Timing Optimization in Engineering Change Order Stage for Functional Unit Blocks in Soc Design ♠ ***Asha Y N*** ♠ ***Dr.Shilpa D R*** ♠ ***Mr. Arun Seetharaman***	121
122.	Fortification of Cold Storage Management System for Farmers Using IoT ♠ ***Thasmiya***	122
123.	Holography ♠ ***Dr. Gangavathi P*** ♠ ***K GaneshKumar Reddy*** ♠ ***K Nikhil Kumar*** ♠ ***Sree Balaji N S*** ♠ ***Shrishail***	123
124.	Design and Development of Single Screw Extruding Machine for Bio-Composites ♠ ***Vinod Kumar Biradar*** ♠ ***Akshat Joshi*** ♠ ***Aryan Kumar Jaiswal*** ♠ ***Nithin S A*** ♠ ***Shanthveerayya S H***	124
125.	Protection and Control of Line to Ground Faults at Distribution Feeders in Smart Grid ♠ ***A. David Arulanandan*** ♠ ***K. Kathiravan***	125

ICASET – 18

5th International Conference on Applied Science Engineering and Technology

Anekal, Bengaluru

17th – 18th May 2018

ABSTRACTS

ICASET - 18

Organized by

Sri Sairam College of Engineering
and
Institute For Engineering Research and Publication (IFERP)

Intelligent Cost Effective Voice Based Personal Assistant for the Physically Disabled

Aftab Faisal., Department of Computer Science And Engineering, Impact College Of Engineering And Applied Sciences,Bangalore. Karnataka. India.

Akbar Faisal., Department of Computer Science And Engineering, Impact College Of Engineering And Applied Sciences,Bangalore. Karnataka. India.

Aneesh Ali., Department of Computer Science And Engineering, Impact College Of Engineering And Applied Sciences,Bangalore. Karnataka. India.

Ashok Malviya., Department of Computer Science And Engineering, Impact College Of Engineering And Applied Sciences,Bangalore. Karnataka. India.

Abstract:--

In the modern world where internet has become a basic need to sustain life's day to day activities , be it work or lie -sure ,the visually disabled and people who are unable to make use of their hands are totally cut off from using internet based services as the devices that are used to access the internet are not designed keeping their needs in mind. In this project we develop a system that caters to their needs by using audio as both input and output eliminating the need of any touch based input and providing quick and easy access to all basic internet related functions.

Keywords:--

Artificial intelligence, Virtual personal assistant, Visually impaired , Physically disabled , Voice processing , Image processing , Internet access.

The Economics of Beverage Price In Kerala a Study With Reference To Wayanad District

Anathavalli T., Department of Commerce And Management, Amrita school of arts and science, Amritapuri, Amrita Vishwa Vidyapeetham, Kerala, India

Adwaitha K Suresh., Department of Commerce And Management, Amrita school of arts and science, Amritapuri, Amrita Vishwa Vidyapeetham, Kerala, India

Revathy K S., Department of Commerce And Management, Amrita school of arts and science, Amritapuri, Amrita Vishwa Vidyapeetham, Kerala, India

Abstract:--

This study looks at the income of agriculture based labourers in Wayanad district in Kerala and how it has been impacted by the price of Alcohol and related beverages. Wayanad district is set high on the Western Ghats, and is the home for many indigenous tribes. Wayanad has a population of 8 lacs plus as per the latest survey. Out of which 64000 are agriculture based labourers (49000 male and 24000 female labourers). It can be noted that Wayanad is the district with lowest literacy rate in Kerala, (89%), and has less contribution to state GDP too. Per capita income of the district is lower than the state average. The motivation for this study came from the recent data released by Beverage Corporation Kerala. The recent statistics released by the sales and revenue department of State Beverages Corporation of Kerala State reveals that total sales in the first three quarter of 2018 financial year is around 236 crores from 6 outlets across the district. Sales of toddy and other forms of illegal alcohol are not included. This shows how alarming the situation is right now in the district. This study aims at finding out the impact of an individual's consumption pattern of alcohol on his income and the resulting crunch on economy of the district. The study concludes that an individual spends more than half of his income towards the consumption of alcohol and related beverages and it is a major cause for decreasing GDP contribution of the district.

Keywords:--

Income, Wayanad, Expenditure on alcohol, Average income per day, wage earners, price elasticity, Savings.

A Study on Partial Replacement of Fine Aggregates by Quaary Dust and Cemnt with Fly Ash

Angadikudethi Mohan Kumar., PG Students of Structural Engineering, Department of Civil Engineering, MITS(AUTONOMUS) Engg. College, Madanapalli, Andrapradesh, India

B.Moorthi., PG Students of Structural Engineering, Department of Civil Engineering, MITS(AUTONOMUS) Engg. College, Madanapalli, Andrapradesh, India

P.Yugandar., PG Students of Structural Engineering, Department of Civil Engineering, MITS(AUTONOMUS) Engg. College, Madanapalli, Andrapradesh, India

V.Deepu., PG Students of Structural Engineering, Department of Civil Engineering, MITS(AUTONOMUS) Engg. College, Madanapalli, Andrapradesh, India

Shaik Jaheed Ali., PG Students of Structural Engineering, Department of Civil Engineering, MITS(AUTONOMUS) Engg. College, Madanapalli, Andrapradesh, India

Abstract:--

Quarry dust is a waste product obtained from quarrying , generally it is defined as the residue. Tailing material after the extraction and processing of rock to form fine particles less then 4.75mm Quarry dust being by and large, a waste product will also reduce environmental impact is consumed by construction industry in large quantities .Hence the use of quarry dust as in fine aggregate in concrete will reduce not only demand for natural sand but also reduce the environmental problems. Moreover, Generally in 10 to 40% by weight of Portland cement. The use of mineral admixtures like fly ash in quarry dust concrete by as partial replacement of cement, improves the pumping of the concrete, strength, durability and reduction of cement consumption. It also reduces the CO2 emission during the manufacturing of Portland cement. Therefore an attempt has been made to study the performance of organic, inorganic inhibitors dosage of 1%,2%,3% and 4% by weight of cement in quarry dust concrete to control the rebar corrosion. M20 grade of Concrete cube of size 150X150X150 mm, cylinder of size 150mm diameter and 300 mm long cast for compressive, split tensile tests after 3,7 and 28 days curing the specimen have been tested as per IS: 516-1964.

A study on Causes and Prevention of Building Cracks in Concrete Structures

Angadikudethi Mohan Kumar., PG Student, Structural Engineering, Madanapalli Institute of Technology and science, madanapalli, Andhra Pradesh, India

Dr .D. Pavan Kumar., Professor of the Civil Engineering Department, Madanapalli Institute of Technology and science, Madanapalli, Andhra Pradesh, India

Abstract:--

Cracks in the building is the most common problem that occur in any type of concrete structure such as beams, column , etc... So, it is important to understand the cause and the measures to be taken for prevention. Though breaks in concrete cannot be avoided altogether yet they can be controlled by utilizing sufficient material and system of construction and considering outline criteria. But due to some faulty steps taken during construction or due to some unavoidable reasons different cracks starts to appear on various structural and non- structural parts of the working with proper way of time. There are cracks which need to be identified at appropriate time, so proper care of such cracks can be taken . This data gives different causes, prevention of building cracks and treatment strategies.

Automated Coconut Tree Climber and Coconut Feller Machine

Anand K., Asst. Prof, Sri Sairam College of Engineering
Vinod Kuamr Biradar., Assistant Professor, Sri Sairam College of Engineering
Basavaraj.H., Mechanical Engineering Department, USN:1SB14ME024, Sri Sairam College of Engineering
Shiva Aladale., Mechanical Engineering Department, USN:1SB14ME106, Sri Sairam College of Engineering
Srikanth Reddy., Mechanical Engineering Department, USN:1SB13ME109, Sri Sairam College of Engineering

Abstract:--

The device for Areca tree climbing was designed developed and tested. The product was constructed to climb the areca tree by applying force on both the pedal alternatively. The product has two units LH and RH, each unit consist of a T -gripper assembly which locks the areca tree, a box –beam assembly which acts as a supporting member of the areca tree climber product, pedal assembly creates the up and down operation of the climbing unit. Initially the climbing unit is fitted at the base of the tree. When the force is applied on the pedal of RH climber unit it creates the grip through the steel wire rope that is connected from T-gripper to the pedal, thus creating the grip to lock the areca tree, The LH climber unit is now pulled up by using the handle that is attached to the T-gripper assembly. The areca tree is climbed to the maximum height by repeating the operation; the reverse operation is followed to descend the areca tree. The result showed that (a) The maximum height of 40 feet was climbed. (b) An average of 15-20 trees was harvested / sprayed by climbing the single tree..

Keywords:--

Arecanut, Tree Climber, Agriculture.

Smart Sensor System for Agricultural Chronology

G Manjula., Asst prof of Computer science Department, Sairam College of Engineering
John.v.j., UG Student of Sairam College of Engineering
Mahesha.D., UG Student of Sairam College of Engineering
meghana.D., UG Student of Sairam College of Engineering
chaithra., UG Student of Sairam College of Engineering
sudhakar.M., UG Student of Sairam College of Engineering

Abstract:--

The upsurge in the expansion of technology and new scientific innovations extended its boom even in farming, coining "precision agriculture". Hitherto, the agricultural practices followed by the farmers are arduous, involving a great physical effort from the side of farmers. The usage of different kinds of sensors and their efficient way of networking in the agricultural fields, eases the work of farmers in the cultivation. This in turn, improves the quality of food grains, reduction in the use of the pesticides and fertilizers, optimal usage of natural resources, thereby increasing the overall profits of the farmersThus the hardware platform is touched, by considering the features of different micro-controllers for acquiring the sensor information in real time, processing, sending and receiving information from fields to the farmers through SMS. The expected results of this paper will reflect the optimal use of water and electricity, increased quality of food grains, reduced usage of pesticides and fertilizers, and thus reduced environmental pollution besides easing the work of farmers.

Keywords:--

Precision agriculture, Wireless Sensor, Networking, Bio-sensors, Micro-controllers, SMS

Fire Fighting Drone

Mr .Muthuvel A., Asst. Prof, Department of Mechanical Engineering, Sri Sairam College of Engineering,Anekal,Bengaluru-562 106
Surya S., Department of Mechanical Engineering, Sri Sairam College of Engineering,Anekal,Bengaluru-562 106
Rajesh C., Department of Mechanical Engineering, Sri Sairam College of Engineering,Anekal,Bengaluru-562 106
Venkatesh R., Department of Mechanical Engineering, Sri Sairam College of Engineering,Anekal,Bengaluru-562 106
Vishnu Varman K., Department of Mechanical Engineering, Sri Sairam College of Engineering,Anekal,Bengaluru-562 106

Abstract:--

The main objective of this project is to design and implement an autonomous fire fighting drone. Basically drones are known as unmanned aerial vehicles(UAV's) that are controlled by humans or autonomously through the use of a computer program. Every year, in the States alone more than 150 fire personnel lose their lives while battling with the fire related incidents. The count will be more folds higher when taken on a global scale. To drastically bring down these disturbing numbers we are looking at one of the possible solutions which is the drone that is being fabricated by our team. We are opting for 6 blades (hexa) for better mobility and stability. We are using 6 servo motors to run the six blades. The hexa-copter has a couple of jaws underneath to hold, grip and drop a fire extinguishing ball or food or medical supplies. A fire extinguisher ball contains sodium bicarbonate or any other fire resistant material. Whenever a ball is dropped, when it comes in contact with the fire, it explodes spraying the content all over the place, and thus bringing the fire under control. The drone could also be used for monitoring and surveillance with the aid of a fire proof camera provided.

Keywords:-

Hexa-copter, Drone, Servo motor, Fire extinguishing ball, Fire proof camera.

Waste Plastic Pyrolyzed Oil

Rajini R., Asst. Prof, Department of Mechanical Engineering, Sri Sairam College of Engineering,Anekal,Bengaluru-562 106
Prsann joshi., Department of Mechanical Engineering, Sri Sairam College of Engineering,Anekal,Bengaluru-562 106
Souvik Bhunia., Department of Mechanical Engineering, Sri Sairam College of Engineering,Anekal,Bengaluru-562 106
Venkatesh., Department of Mechanical Engineering, Sri Sairam College of Engineering,Anekal,Bengaluru-562 106
Goutham H R., Department of Mechanical Engineering, Sri Sairam College of Engineering,Anekal,Bengaluru-562 106

Abstract:--
The present rate of economic growth is unsustainable without saving of fossil energy like crude oil, natural gas, or coal. There are many alternatives to fossil energy such as biomass, hydropower, and wind energy. Also, suitable waste management strategy is another important aspect. Development and modernization have brought about a huge increase in the production of all kinds of commodities, which indirectly generate waste. Plastics have been one of the materials because of their wide range of applications due to versatility and relatively low cost. Some 299 million tons of plastics were produced in 2013, representing a 4 percent increase over 2012. Recovery and recycling, however, remain insufficient, and millions of tons of plastics end up in landfills and oceans each year Approximately 10–20 million tons of plastic end up in the oceans each year. A recent study conservatively estimated that 5.25 trillion plastic particles weighing a total of 268,940 tons are currently floating in the world's oceans. And since plastic being a non-biodegradable material it remains into the soil, thereby polluting the environment. Our Project deals with the extraction of OIL/DIESEL from the waste plastics termed as PLASTIC PYROLYZED OIL which can be marketed at much cheaper rates compared to that present in the market. As we know that both Plastics and Petroleum derived fuels are Hydrocarbons that contain the elements of Carbon & Hydrogen. Pyrolysis process becomes an option of waste-to-energy technology to deliver bio-fuel to replace fossil fuel. The advantage of the pyrolysis process is its ability to handle unsort and dirty plastic. The pre-treatment of the material is easy. Plastic is needed to be sorted and dried. Pyrolysis is also non toxic or non environmental harmful emission unlike incineration

Study on Mass Flow Rate in Labrynith Seal using CFD Analysis

Aprameya C R., M. Tech in Machine Design 1BMS College of Engineering (BMSCE), Bengaluru-560019
J Sharana Basavaraja., Associate Professor, 2BMS College of Engineering (BMSCE), Bengaluru-560019
Rajesh P., Assistant Professor, 3BMS College of Engineering (BMSCE), Bengaluru-560019

Abstract:--

This study aims to find the leakage flow rate parameter of Labyrinth seals with respect to the different profiles and validation of leakage flow rate through experimental setup known as seal test rig for Labyrinth seals. The different Labyrinth seal profiles are designed using CATIA software and CFD analysis is performed to study the mass flow rate at outlet of the Labyrinth seal, results in terms of pressure distribution profiles, velocity distribution profiles, pressure contours, velocity contours, turbulence dissipation rate, turbulence kinetic energy, velocity field are tabulated, studied to understand the mass flow rate through a Labyrinth seal and study aims to conduct static analysis, modal analysis using ANSYS software & CFD analysis using COMSOL Multiphysics software. Finally all results and observations are tabulated and compared to analyze the leakage flow rate of Labyrinth seal for different configurations and design changes.

Key words:--

Computational fluid dynamics (CFD), Labyrinth seal, static analysis, CATIA software, ANSYS software, Mass flow rate, leakage, COMSOL Multiphysics, etc.

New ACDMA Encoding and Decoding Technique for Network-on-Chip

Archana.M., Dept of ECE, AMC Engineering College, Bangalore, India
Dr.N.V Uma Reddy., Dept of ECE, AMC Engineering College, Bangalore, India

Abstract:--

Code Division Multiple Access (CDMA) is proposed as the physical layer enabler of Network-On-Chip (NoC) interconnections. CDMA interconnects have been adopted by the NoC community where as each encoded bit is transmitted on a separate channel to avoid the interface. In this work, we present a new CDMA encoding and decoding technique by using the multiplexer which reduce the delay and operating frequency compared to the ACDMA. In the proposed method the logic gates are replaced by the MUX to reduce the interface and the area. We implement our encoding/decoding method and apply it to a CDMA NoC with a star topology. The design consists of Encoder and decoder the consumes less area and produce output in minimum period of 5.198ns and it can achieve maximum Frequency: 192.365MHz. The delay of the proposed method is 1.945ns and the Maximum Frequency: 514.258MHz..

Key words:--

Network on chip, Multiplexer, CDMA Crossbar

"SIRASTRANA"-A Smart Helmet for Air Quality and Hazardous Event Detection for the Mining Industry

Raghavendra Rao B., Asst. Prof, Department of Mechanical Engineering, Sri Sairam College of Engineering,Anekal,Bengaluru
Karthik NS., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
NA Poojitha., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Divya L., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Nandini N., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru

Abstract:--

A smart helmet has been developed that is able to detect of hazardous events in the mines industry. In the development of helmet, we have considered the three main types of hazard such as air quality, helmet removal, and collision (miners are struck by an object). The first is the concentration level of the hazardous gases such as CO, SO2, NO2, and particulate matter. The second hazardous event was classified as a miner removing the mining helmet off their head. An IR sensor was developed unsuccessfully but an off-the shelf IR sensor was then used to successfully determine when the helmet is on the miner's head. The third hazardous event is defined as an event where miners are struck by an object against the head with a force exceeding a value of 1000 on the HIC (Head Injury Criteria). An accelerometer was used to measure the acceleration of the head and the HIC was calculated in software.This paper presents the undertaken design detailing solutions to issues raised in previous research. Main objective to give the correct and clean breathing averment at any hazardous or toxic environment.

Keywords:--

Air quality,Mining,Safety,ZigBee, Wireless sensor Networks.

Hand Gesture Based Survivellence Robot

Mrs.Shalini K V., Department of computer science and engineering,sri sairam college of engineering, Anekal Bangalore-562106

Sharath sagar reddy P., Department of computer science and engineering,sri sairam college of engineering, Anekal Bangalore-562106

Manasa S., Department of computer science and engineering,sri sairam college of engineering, Anekal Bangalore-562106

Jhansi Rani M., Department of computer science and engineering,sri sairam college of engineering, Anekal Bangalore-562106

Arun S., Department of computer science and engineering,sri sairam college of engineering, Anekal Bangalore-562106

Abstract:--

In the past decade, robotic systems have been used with increased popularity for explosive ordnance (EOD) missions. Advances in robotic technology have made it possible for robots to per-form functions, previously only possible by human workers wearing a blast suit. The primary advantage to using robotic systems for explosive ordinance disposal is the reduced risk to humans. Currently, EOD robots are able to traverse a variety of terrain, collect and destroy certain explosives and provide improved reconnaissance capabilities to law enforcement and military agencies. Although far from perfected, these robots are saving lives by finding and disposing of explosives without the need for direct human contact reliable robotic platform. The key features of the robot include an hand gesture interface which provides additional sensor feedback and enhanced visual awareness compared to existing systems, an on board three degree of freedom manipulator arm providing an enlarged workspace, and a dexterous gripper allowing for the removal of detonators. The flexible and modular robot design utilizes commercial off the shelf components for ease of maintenance and repairs. The robot provides a safe distance threat assessment and increased capacity for explosive ordinance disposal, improving the effectiveness of bomb disposal teams. The robots low-cost, hand gesture operation and ease-of-maintenance promote its widespread appeal, thereby saving the lives of both law enforcement personnel and civilians. Robot will detect the position of the bomb by using GPS module. The user just needs to wear a gesture device which includes a sensor. The sensor will record the movement of hand in a specific direction.

Key words:--

GPS, sensor, wireless communication, GSM, EOD Robots.

"Dustless Environment" Using Neagh Device

Neesu Dubey., UG Scholar, Sri Sairam College of Engineering, Bengaluru, India.
Neha Jha., UG Scholar, Sri Sairam College of Engineering, Bengaluru, India.
Pragati Katiyar., UG Scholar, Sri Sairam College of Engineering, Bengaluru, India.
Ramesha T.H., UG Scholar, Sri Sairam College of Engineering, Bengaluru, India.
T.K Pradeep Kumar., Asst. Prof., Sri Sairam College of Engineering, Bengaluru, India

Abstract:--

Dust can be more than just a nuisance – it can be killer. Dust is simply small particles in the air. Often these particles are too small to be seen but deals with the major problem that is irritation in the eyes, coughing, sneezing, hay fever, asthma attacks etc. This project use to automatically clean dust particles from road of the city. The system will be fitted on any vehicle, where DC motor used to collect the dust particles from road and store it in a container. When container is filled, then the system will give alert.

Key words:--

DC motor, LCD, Solar Panel, Buzzer, Microcontroller.

Library Characterization of D Flip-Flop

Avinash N J., Department of Electronics and Communication Engineering, Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal.

Sowmya Bhat., Department of Electronics and Communication Engineering, Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal.

Renita Pinto., Department of Electronics and Communication Engineering, Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal.

Chetan R., Department of Electronics and Communication Engineering, Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal.

Kusuma Prabhu., Department of Electronics and Communication Engineering, Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal.

Abstract:--

Cell library characterization is a model of standard cell library possessing a very high quality. Characterization is done because the functionality/delay simulation takes too long. In addition, the power extraction from the whole chip takes more time and automatic detection of timing constraints is also very hard. Hence to overcome this problem, cell characterization is employed. Cell library characterization accurately and efficiently models cell behavior. For accurate modeling of voltage variation or temperature gradient, it is necessary to characterize each library at multiple voltages and multiple temperatures, increasing the total number of library corners. The D flip-flop used here overcomes the drawback of intermediate output and non-allowed logic states by the SR flip-flop.

Key words:--

Cell library characterization, D flip-flop.

Cryptographic Predicate Encipherment for Multirecivers on Online Community

Brunda C., UG Scholar, Rajarajeswari College of Engineering

Abstract:--

Among the use of the web and cloud computing, online social network is an extremely main stream service. Since great deal of data is put away in Online Societal Community stage security endurance on such application is a critical issue. If client scramble their messages, the online informal organization cannot generate exact advertisements to the user. Thus, to accomplish both protection and precise notice is a basic issue unfortunately online informal organization cannot accomplish both protection safeguarding and exact advertisement simultaneously to the users. In this prospect the predicate encryption for online informal organization platform is proposed primary multi receiver. The predicate encryption is utilised which provides shorter cipher text that indeed provides us more privacy/security and reduces the cost of encryption and decryption.

Black Spots Identification on Pinjore to Baddi Road

Chetna., M.Tech Student, CED, NITTTR, Chandigath
Navdeep Mor., Ph.D. Scholar, CED, NITTTR, Chandigath
Dr. Hemant Sood., Professor & Head, CED, NITTTR, Chandigath

Abstract:--

Road transportation is the elementary need for any country's development and progress toward a better future, whether it be social or economical. Transportation has become a significant part of a human's day to day life, but it also has deleterious consequences. Factors such as population growth, in cities as well as in the suburbs, faulted road parameters and many others, has caused India to experienced tremendous rise in road accidents. Black spot or black zone is a general term used to describe a stretch of road noted to have high risk in accidents. The study deals with the identification of black spots on Pinjore to Baddi road, spanning 18km, and also ways of treating the problem spots. The Pinjore to Baddi road is within the state of Haryana, India. The study was conducted in a period of six years, using the accident data from the nearest police stations. There are various methods of identifying black spots, these are Accident Severity index method, weighted severity index method WSI and Critical crash rate method.

"EDUSCIENZA"-Smart Learning using Augmented Reality"

Dr. B. Shadaksharappa., HOD (CSE) & Vice Principal, Sri Sairam College of Engineering, Bengaluru
Suraj S., UGScholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Spoorthi S., UGScholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Navyashree R., UGScholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Nithin Kishore K., UGScholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru.

Abstract:--

Augmented reality (AR) is precisely a direct or an indirect real-world view of an environment whose components are augmented by computer generated information, ideally across multiple sensory modalities. Augmented reality is a reality in which is enhanced digitally with the help of virtual objects that appear to be in our field of vision. The primary task of augmented reality is that it brings components of the digital world into a person's imagination of the real world and does so not as a simple display of data, but through the integration of immersive sensations that are perceived as natural parts of an environment. In our project, AR has been used to guarantee a standard curriculum using Text, Graphics, Video, and Audio which is superimposed into a student's real-time environment. Almost anything can be done with augmented reality, one can create application that help students do practical experiments all at one place. The application will be mainly useful for students in learning process at any place with the app installed in their phone that makes students learn efficiently and practically. Students can learn by carrying out interaction through virtual objects and learning materials and help students actively interact in lab performing different experiments to increase their understanding and to make them learn rather than reading.

Key words:--

Augmented reality, virtual objects, experiments.

A Model for Ordering In Restaurant Based On QR Code without Presence of a Waiter at the Table

Dr. B. Shadaksharappa., Department of Computer Science and Engineering,Sri Sai ram College Of Engineering, Anekal,Bangalore-562106

KotraChaithanya., Department of Computer Science and Engineering,Sri Sai ram College Of Engineering, Anekal,Bangalore-562106

Suresh .J. Department of Computer Science and Engineering,Sri Sai ram College Of Engineering, Anekal,Bangalore-562106

Mahesh R., Department of Computer Science and Engineering,Sri Sai ram College Of Engineering, Anekal,Bangalore-562106

Deepak Kumar., Department of Computer Science and Engineering,Sri Sai ram College Of Engineering, Anekal,Bangalore-562106

Abstract:--

Communication field has changed rapidly and an appropriate condition has been created to use this capacity in business due to developing technology in field of information technology and availability of tools to work with this technology especially the arrival of smartphones to market and its expansion which provides the capability of connecting to internet with desired broadband. In this article, we have tried to design a system to be able to provide more advantages including electronic payment of bills as well as entertainment facilities in the time between ordering and delivering the goods to customers beside previous options by reviewing restaurants that take advantage of the electronic menu using QR code on the customer's mobile. Moreover, in this new model, there will be the possibility of internet-based remote ordering and also bill payment will be through bank portal before delivering the good to the customer by allocating QR code to the steady customers and entering their information in database such as phone number and exact address.

Keywords:--

Smartphones, ordering, smart restaurants, QR Code.

"Samarthyam" - Advance Footstep Power Generation

Bindu Madavi., Assistant Professor ,Computer Science and Engineering, Sri Sairam College of Engineering, Bangalore
Sandhya A S., UG Scholars, Computer Science and Engineering, Sri Sairam College of Engineering, Bangalore
Sahana T S., UG Scholars, Computer Science and Engineering, Sri Sairam College of Engineering, Bangalore
Pooja B N., UG Scholars, Computer Science and Engineering, Sri Sairam College of Engineering, Bangalore
Priya j., UG Scholars, Computer Science and Engineering, Sri Sairam College of Engineering, Bangalore.

Abstract:--

'Samarthyam'- The buzz for power. Man has needed and used energy at an increasing rate for his sustenance and wellbeing ever since he came on the earth a few million years ago. Due to this a lot of energy resources have been exhausted and wasted. Proposal for the utilization of waste energy of foot power with human locomotion is very much relevant and important for highly populated countries like India and China where the roads, railway stations, bus stands, temples, etc. are all over crowded and millions of people move around the clock. The project advanced footstep power generator system is used to generate power from human footsteps. The system allows for a platform for placing footsteps. It uses Peizo sensors to generate the power. The Footstep Power Generation System is echo-friendly, it reduces waste of energy , it is of less maintenance cost, it is of ultralow noise and wide dynamic and temperature range . This project is used for street lighting, mobile charging. It can be used in power failure situations. The application areas of this project involve public areas like temples, streets, metros, railway stations. This entire system will be integrated with software for displaying the amount of power generation with the help of IOT technology.

Keywords: -

Power, locomotion, Piezosensor, spring module.

Solar PV based BLDC Motor Driven Water Pumping System using Zeta Converter

Deepak Saw., M. Tech Scholar, Department of Electrical Engineering, IIT (ISM) Dhanbad, India
Samar Anand., M. Tech Scholar, Department of Electrical Engineering, IIT (ISM) Dhanbad, Indiae
Dr Kartik Chandra Jana., Assistant Professor Department of Electrical Engineering, IIT (ISM) Dhanbad, India

Abstract:--

This paper proposes an efficient and cost effective Brushless dc motor fed water pumping system for solar photovoltaic (PV) array. A zeta converter is utilized to draw the maximum power available from the Solar of VSI, results in reduction in power loss due to high switching frequency. A suitable control of PV array. BLDC motor does not require any additional circuitry for speed control. Variable dc link voltage of voltage source inverter (VSI) is utilized to control the speed. The proposed technique comply fundamental switching frequency zeta converter through INC-MPPT (incremental conductance maximum power point tracking) algorithm provides smooth starting of the BLDC motor. The water pumping system is developed and demonstrated through simulation using MALTAB/Simulink considering variation in environmental conditions such as temperature and irradiance.

Tensile Properties of Polypropylene/Graphite/Carbon Fiber Hybrid Composites

Devendra Vyas., Student, National College of Engineering

Abstract:--

In this study, the effect of graphite on hybrid composites based on polypropylene was analyzed. Different content of graphite (5 to 20%) were added to polypropylene/carbon fiber hybrid composite. Composites are called as composition materials which are composed of two or more different material which have significantly different properties as that of individual materials. Hybrid composites are composed of two or more filler content in a single Matrix. Hybrid composite has their own significant properties which are different from its simple composites. Carbon – Fiber reinforced composite have high strength and less weight. The composites were prepared by using twin screw extruder. The composites were prepared in dog-bone type samples. Tensile test on hybrid composite were carried out at room temperature according to ASTM 638 Standard. Tensile modulus and percentage elongations were evaluated. Scanning electron microscopy (SEM) images were also taken for evaluating the fracture surface of the tensile specimen.

Machine Learning Approaches for Data Analytics and Modeling

Dr.M.Vinoth Kumar., Associate Professor, Department of ISE, Dayananda Sagar Academy of Technology and Management, Bangalore

N.Girish., Assistant Professor, Department of ISE, Dayananda Sagar Academy of Technology and Management, Bangalore

S.Babu Kumar., Assistant Professor, Department of ISE, Dayananda Sagar Academy of Technology and Management, Bangalore

Abstract:--

Recently Machine learning is a growing technology in various applications of academia and Industry which includes healthcare, social media, agriculture, economy and finance. It plays an essential role in data mining for handle the huge data generated and maintained by different machine. Big data analytics has been geared as a driving force to reinvent how machine learning techniques are useful for data analytics with high dimensional features in heterogeneous format. This paper presented a comparative study of machine learning techniques for big data analytics and modeling used by data scientist.

Keywords: -

Machine learning, big data, data analysis, data modeling.

Global Bus Monitoring and Alert System

Raghavendra Rao B., Assistant.Professor, CSE, Sri Sairam College of Engineering
Ganapriya R., UG Scholars, CSE, Sri Sairam College of Engineering
Monika S., UG Scholars, CSE, Sri Sairam College of Engineering
Jyothi Tiwari P., UG Scholars, CSE, Sri Sairam College of Engineering
Kavitha Lakshmi B., UG Scholars, CSE, Sri Sairam College of Engineering

Abstract:--

RFID is a technology similar to that of bar code scanning. An RFID system consists of tags, which use radio frequency signals to transmit its location information to a RFID reader. This project presents by placing RFID reader in the buses and the RFID tags in every alternative bus stop which are then displayed at the mobile. This system thus describes is a cost effective and easy to implement scheme for tracking buses in real time.

"HEAD MOVEMENT" Controlled System to Assist the Physically Challenged Using IoT

Reji Thomas., Assistant Professor, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Anoop Daewoo M., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
VK Manasa., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Aishwarya M., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Rakesh Kumar Yadav G., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru.

Abstract:--

"Silla de-ruedas" This project describes the design of a simple, wheel chair using head movement system. Heart rate of the subject is measured from the thumb finger using IRD (Infra Red Device sensors). This instrument employs a simple Opto electronic sensor, conveniently strapped on the finger, to give continuous indication of the pulse digits. The Pulse monitor works both on battery or mains supply. It is ideal for continuous monitoring in operation theatres, I.C. units, biomedical/human engineering studies and sports medicine.This project uses AT89S52 MCU as its controller. By reading all the values of temperature and heart rate will be displayed on LCD. Temperature and heart beat values will be taken and updated in the web server using IoT module interfaced to the controller. This project uses regulated 5V, 500mA power supply. 7805 three terminal voltage regulator is used for voltage regulation. Bridge type full wave rectifier is used to rectify the ac out put of secondary of 230/12V step down transformer.

Keywords:--

Microcontroller, H-Bridge, IoT, Android Application.

A Smart Intiative for Automobiles and Road Safety

Mrs. Nisha MS., Assistant Professor, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Nanda Kumar V., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Karthika K., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Latha S., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Geethika k., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru.

Abstract:--

The project is to engender a progressive city by utilizing today's available premium technological resources by constructing our planet to be a better and safe place to live based on the idea of smart cities. In this proposed project, the Automobiles are equipped with RFID tags, audio instructor and road side unit with RFID detector. When the vehicle enters those restricted zones, automatically speed will be controlled using 89S52 microcontroller as well as an audio is heard in the vehicle. Whenever a red signal jump has been found by using sensors on the road side automatically penalty amount from the prepaid smart card inside the vehicle will be deducted and credited to RTO account.

Keywords:--

RF module (RFID tags, RFID readers), Smart card (RFID card), IR sensors, Audio Instructor, Microcontroller 89S52.

KRUSHI RAKSHAK- A New Approach of Protection & Intimations for Agricultural Land

G Manjula., Assistant Professor, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Keerthana R., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Aishwarya S., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Navya B V., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Madhu Shree E., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru

Abstract:--

"KRUSHI RAKSHAK'' As the project title says, this project is very useful for farmers. Nowadays farmers in India are facing so many problems because of power cuts and they don't know when the power comes and goes. So with this project we can solve the problem of the power cut by using the solar energy to run the pump. Using the IOT WIFI technology, the farmer can know when the power comes and goes and using this information he can control the pump wirelessly so he can switch on the pump in power mode or the solar mode, so that he can store the solar energy for future use. With the help of the soil moisture indicator the farmer can know the statues of the soil water. With the help of the hi-tech laser security system the farmer can monitor the farm wirelessly. Timer based switching system for water pump.

Keywords:--

Microcontroller, Soil moisture Sensor, IoT, Android Application.

Mechanical Modeling and Testing of 3d Printed Material

Hemanth B R., ATME College of Engineering, Mysore

Abstract:--

Fused Deposition Modeling (FDM) is one of the best 3-D printing techniques, where specimen is built as layer by layer deposition from the extruded filaments of melted thermoplastic. Layer orientation plays an important role in surface finish, dimensionality and mechanical behavior. Present work is an attempt to determine the tensile strength, Young's modulus and fracture strain of the 3-D printed model built by using raster fill method according to ASTM D638 standards. The tensile strength and modulus were shown to vary based on the build orientation of identical test specimen. Fractured surface of the surface shows the 3D printed material behaves more like composite structures. Strain gauges were used to measure the uniform strain during the tensile testing. Numerical Modeling of the tensile set up was done in ABAQUS to replicate experimental results.

Keywords:--

FDM, ASTM D638, Build Orientation, Strain Gauge.

A Study on Manufacturing of Bricks using Black Cotton Soil and Red Soil

Hubli Kiran., SDM College of Engineering and Technology, Dharwad
Beedimani Priyanka., SDM College of Engineering and Technology, Dharwad
Aishwarya., SDM College of Engineering and Technology, Dharwad
Karale Suneel., SDM College of Engineering and Technology, Dharwad.

Abstract:--

Over a past few decades, there have been a wide ranges of alternatives available in the field of construction, especially with reference to manufacture of bricks. Further, there are some inventions like fly ash brick, concrete blocks etc. There are also researches using black cotton soil as a raw material in the manufacturing of bricks along with few admixtures to alter the properties of the black cotton soil. This research study describes the feasibility of using black cotton soil as a raw material with additional stabilizer in the brick production as partial replacement of clay in Indian context. The study has revealed that the bricks manufactured using this method have good quality with acceptable strength and further, they can be manufactured in a cost effective manner.

Keywords:--

Adhesive Material, Brick, Black Cotton Soil, and etc.

Crash Analysis and Reinforcements Design for Medium duty trucks for Rollover Crash Accidents

Hussain Pasha., P.G. Student, B.M.S. College of Engineering.

Abstract:--

Safety of the driver and other occupants of the cab in medium duty trucks (COE type) during the event of the crash is a vital consideration for cab BiW design. According to the data released by NHTSA, there were 37,461 people killed in crashes in 2016 which is a 5.6% Increase as compared to the previous year. In the past most of the dynamic analysis were done by testing or contracted out. Now with the use of Computer simulation the dynamic analysis can be simulated to reflect real world testing. Virtual simulation in the computer provides opportunities to reduce development time of the cab and also reduces number of physical prototypes consumed for verification of the design and its validation for safety regulations. Among rear, front impact and rollover accidents, rollover accidents results in severe casualty for occupants. As per Regulation ECE-R29.03, the cab body of the truck shall be so designed and attached to the vehicle in such a way that in the event of crash exhibit a sufficient survival space and eliminate the risk of injury for the occupants to the greatest possible extent. In this project, CAE simulations are performed to verify various safety aspects to ensure crash worthiness of the truck cabin using the nonlinear explicit finite element program LS-DYNA/ANSA to the baseline model of the truck for Rollover 180 case (which constitutes both side impact and roof crush) as per ECE-R29.03 and the Intrusions are recorded. Now various Reinforcement concepts will be developed based on CAE simulation results and feasibility studies were carried out so that these concepts can be implemented as an add on components on the existing cab BiW to reduce intrusions during crash, and finally the Correlation studies are done for the cab with reinforcements verses the cab without reinforcements.

Keywords:--

COE: Cab over Engine,
ECE: Economic Commission for Europe,
CAE: Computer Aided Engineering Analysis,
BiW: Body in White,
NHTSA: National Highway Traffic Safety Administration

Krushi Roboter-"Future Farmer's Friend

Ms.Sowmya A M., Department of Computer Science and Engineering, Sri Sai ram College Of Engineering, Anekal,Bangalore-562106
Ramya M., Department of Computer Science and Engineering, Sri Sai ram College Of Engineering, Anekal,Bangalore-562106
Ranjith C., Department of Computer Science and Engineering, Sri Sai ram College Of Engineering, Anekal,Bangalore-562106
Madhusudhan R., Department of Computer Science and Engineering, Sri Sai ram College Of Engineering, Anekal,Bangalore-562106
Ranjitha V., Department of Computer Science and Engineering, Sri Sai ram College Of Engineering, Anekal,Bangalore-562106

Abstract:--

This robotic vehicle is an agricultural machine of a considerable power and great soil clearing capacity. This multipurpose system gives an advance method to sow, plough, and water and cut the crops with minimum man power and labor making it an efficient vehicle. As jobs in agriculture require intelligence and quick, where robots could be substituted. The mode of operation of the proposed machine is simple even to the lay man. Model is controlled using Android Application through BLUETOOTH. The application is specifically designed for moving the robot in variable directions such as, forward, backward, left and right. Developed agriculture needs to find new ways to improve efficiency. The project gives an integrated application in the field of agriculture, which plays a vital role in the development of nation. The machine will cultivate the farm by considering particular rows and specific column at fixed distance depending on crop. Moreover the vehicle can be controlled through Bluetooth medium using an Android smart phone. The whole process calculation, processing, monitoring are designed with motors & sensor interfaced with microcontroller.

Keywords:--

Bluetooth, microcontroller, motor driver circuit, transmitter and receiver.

Automatic Pill Dispenser

Mrs.Manjula G., Assistance Prof. Department of Computer Science and Engineering, Sri SaiRam College of Engineering, Bangalore, VTU Belgaum, Karnataka, India

Ms.Udaysree P., UG Scholars, Department of Computer Science and Engineering, Sri SaiRam College of Engineering, Bangalore, VTU Belgaum, Karnataka, India

Ms.Ranjitha S., UG Scholars, Department of Computer Science and Engineering, Sri SaiRam College of Engineering, Bangalore, VTU Belgaum, Karnataka, India

Ms.Sangeetha L., UG Scholars, Department of Computer Science and Engineering, Sri SaiRam College of Engineering, Bangalore, VTU Belgaum, Karnataka, India

Ms.Priyanka., UG Scholars, Department of Computer Science and Engineering, Sri SaiRam College of Engineering, Bangalore, VTU Belgaum, Karnataka, India

Abstract:--

Earlier, people would live in joint families where atleast one person used to be there at home to take care of aged people. In modern days, people prefer nuclear families where there are no one present to take care of aged people and patients due to their busy working schedule. To overcome this, they need to appoint a caregiver to take care of the patients for their diet, hygiene, medication etc. Payments given to the caregivers will affect their savings. To overcome such problems a model is needed. This model medicates the patients and aged people automatically to inform them regarding medication in time as prescribed by the Doctor. This is done by presetting the prescribed time and comparing it with RTC time. When they are equal, tablets are dispensed. The patient is given sufficient time to take the tablets. If the patient fails, a message is sent to the caregiver informing about the failure. Thus the proposed model is implemented for aged people, patients, bed-ridden and the illiterates to ensure medication at right time and simultaneously notify the caregiver if patient fails to take medications.

Detection of Broken Railway Tracks and Obstacles by Ultrasonic Technology

Manish Dixit., UG Scholar, Sri Sairam College of Engineering, Bengaluru, India
Bitan Paul., UG Scholar, Sri Sairam College of Engineering, Bengaluru, India
Drishant Sharma., UG Scholar, Sri Sairam College of Engineering, Bengaluru, India
Manik Reshi., UG Scholar, Sri Sairam College of Engineering, Bengaluru, India
Jeyadevan S., Asst. Prof., Sri Sairam College of Engineering, Bengaluru, India.

Abstract:--

Railways are one of the important transports in India. There is a need for manual checking to detect the crack on railway, even though the inspection is made regularly, sometimes the crack may go unnoticed. Because of this the train accident or derailment may occur. To avoid this situation, we have proposed this railway crack detection system. Here, ultrasonic sensor is used to detect the crack in the railway track. We place both the ultrasonic sensors on the train for obstacle and crack detection. If crack is detected, notification is shown by LCD to driver and is send through GSM to the base station, and EPM module is used to halt the train depending on the pressure applied.

Key words:--

Ultrasonic Sensor, Electric Pulse Magnetic Braking System, Crack Detection.

Smart Health Using Andriod Application

Mrs. Saanjanna., Assistant Professor, Dept. of Computer Science & Engineering, Sri Sairam college of Engineering, Bangalore.
Harshitha HB., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College Of Engineering, Bangalore.
Chekuri Lokesh., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College Of Engineering, Bangalore
Gobidasan M., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College Of Engineering, Bangalore
Shweta Nalatwad., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College Of Engineering, Bangalore.

Abstract:--

This project is an attempt to develop an IOT implementation for the health monitoring of the patients at home as well as in hospitals. The remote access of the data from the wearable sensors is more important, as it would help the doctors to take decisions at work. The patients at Hospitals and Home those who are treated by the hospital doctors would have to update their data by coming to the hospitals. In order to avoid the movement of the patients, this project takes up the idea of updating the patient monitored data on the firebase which is received on Android application. The firebase would update the monitored data on the Database and the doctor would be able to see the data as the Bio-medical signal on the Application. To intimate the doctor the data which is received by Raspberry pi is sent to application through the firebase to the doctor's mobile During an Emergency time. If the doctor is offline, then after few seconds automatically the phone call is made to doctor, but even if phone call step fails, again within a few seconds, Immediately the Alert message is triggered to other doctors. The application in health care to monitor the patient health status, internet of things makes medical equipment's more efficient by allowing real time monitoring of patient health. The internet of things in the medical field brings out the solutions for effective patient monitoring at reduced cost and also reduces the trade- off between patient outcome and disease management. In this paper discuss about, monitoring patient's blood pressure and heart beat using raspberry pi.

Key words:--

IOT, raspberry pi, Sensors, Patients, health care.

Swagger Machine to Survey the Ocean

P.Kalamani., Assistant professor, Department of Computer Science& Engineering,Sri Sairam College of Engineering,Bengaluru.
Karthikeyen.G., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Ranjani.R., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
R.P.Sandhya ., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Ramyashree.G., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru

Abstract:--

Ocean Exploration and Navigational Research is leading efforts by supporting expeditions with computer vision techniques have shown potential for Sailboat robots developed in order to make measurements at the surface. The marine environment presents an almost ideal test-bed for the evaluation and development of robotic technologies. Robot sailing is a challenging task in both building and controlling the boat therefore it brings together many different disciplines. The sailing robot explores in interpretation of video footage, the identification of sailing features, human-robot interaction, vehicle control, position estimation and mechanical design. Key applications for this vessel are the assessment of marine habitats and complex manoeuvres. An idea presented has been with a Robotic vehicle which activates automatically and manually control the moving object in the water the robot will capture and sends the information to the pc (personal computer) which uses advanced image processing technology and compares relevant images by identifying underwater features which will follow the object present in the surface of ocean. Here ARM7 processor is in built with interfacing a wireless camera which uses RF based communication. The DC motors are used to rotate the arms of the robot to catch habitats.

Key words:--

Sailing robot; Footage; Manoeuvres; Habitats.

AI Based Novel Software Validation Paradigm Through Defect Detection And Diagnosis

Kalaivani K., Student, B.E, Dept. of Electronics and Communication Engineering R V College of Engineering
Rajat Singh., Student, B.E Dept. Computer Science and Engineering, Manipal Institute of Technology

Abstract:--

As software dictates the basic operation of any device, ensuring its accurate and optimal performance with minimum infliction of damage becomes very crucial. Therefore, verification and validation plays an indispensable role in any software development lifecycle. The main objectives of software testing are threefold. Firstly, to ensure that the specified requirements are achievable. Secondly, to validate the functionality of the software and thirdly to carry out exploratory or negative testing to guarantee that the software does not misbehave under exceptional scenarios. This paper proposes a novel software testing and validation paradigm for automated identification of functional flaws in the software under test and localization of their causes. Artificial Neural network, replicating the functionality of the software, is employed for fault identification. For achieving an optimal network with high accuracy and effective generalization, a novel sensitivity based algorithm has been implemented to prune the feedforward back propagation Artificial Neural Network. Significant rules extracted from the optimized network assists the removal of redundant test scenarios. This way it helps identify defects and loopholes in a robust, efficient and cost-effective manner thereby eliminating the limitations of a human tester. The devised paradigm also eradicates the need for time intensive recreation of the fault by isolating it to the most probable defective module. This isolation is achieved through appropriate sequencing of the test scenarios.

Coordination of Ems with Hospital for Enhancing Patient Safety during Emergency Case

Manikandan., P.G. student, SRM Institute of Science And Technology, Chennai-603203.
Ramesh., P.G. Assistant Professor (Sr.G), SRM Institute of Science and Technology, Chennai-603203

Abstract:--

The rapid growth of technology and infrastructure has made our lives easier. The advent of technology has also increased the traffic hazards and the road accidents take place frequently which causes huge loss of life and property because of the poor emergency facilities. Our project will provide an optimum solution to this draw back. According to this project when a vehicle meets with an accident means, immediately they will identify the place of injuries, like head, hand, leg etc. According to their injuries, they search the nearby hospital and admit them at the short period of time. Because when the patient is injured at head means, when they are taken to the nearby hospital means, when the particular specialist doctor is not present means, it will take some time to reach another hospital. To avoid this problem, first the hospital is selected according to their injuries and then admitted. Then the GPS is used to identify the distance between the accident regions to the hospital.

Key words:--

GPS, emergency facilities, specialist doctor.

Integration with Moisture Meter for Monitoring Stored Food Grains

C.Sivaprakash., Assistant professor, Department of Computer Science& Engineering,Sri Sairam College of Engineering,Bengaluru
Chaithra.S., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Dilip Kumar., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Shubham Trivedi., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Vandana., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru

Abstract:--

Moisture plays a very vital role in the daily operations of FCI (Food Corporation of India). With a change in moisture value, computation of storage loss/ gain in food grains gets affected. Hence capturing the moisture value is very essential. Food Corporation of India uses moisture meter (a hardware device) developed by different manufacturers. The readings of the moisture meter are noted manually and are fed into DOS (Depot Online System).Since there is a human intervention, there could be chances that the readings noted are erroneous. FCI is looking for a solution where the readings of the moisture meter are captured directly from the moisture meter into DOS or any other software application what FCI is using. This issue can be addressed by designing a hardware device which consists of a moisture meter and networking device. All of this devices work as a slave and they will send the moisture reading to the master device and this master device will store the captured data into the online system.

Keywords:-

Wi-Fi, Internet of things, Master, Slave, Depot Online System (DOS), Cloud storage.

ATM Security using Fingerprint Authentication and OTP

Aruna R., Assistant Professor, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal, Bangalore

Sudha V., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal, Bangalore

Shruthi G., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal, Bangalore

Usha rani R., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal, Bangalore

Sushma V., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal, Bangalore

Abstract:--

In this paper, we propose to add more security to the current ATM Systems. By using Biometric Authentication and GSM technology, we can overcome many of the flaws introduced by our current ATM system such as shoulder surfing, use of skimming device, etc. In our proposed system, Bankers will collect the customer's as well as respective nominee's fingerprint and mobile number at the time of opening the account. The primary step is to verify currently provided fingerprint with the fingerprint which is registered in the Bank's database at the time of account opening. If the two fingerprints get matched, then a message will be delivered immediately to the user's mobile number which is the random 10 digit pin number called as One Time Password (OTP). This OTP can be used only once, thus this avoids various problems associated with the present system. For every transaction, new OTP will be sent to account holder's mobile number, thus there will not be fixed PIN number for every transaction. Thus, PIN number will vary during each transaction assuring security.

Key words:--

ATM; PIN; Fingerprint; security; biometric.

Automatic Gas Cylinder Management

Dhanya G.S., Assistant Professor, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal

MulumTejas., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal,

Mujasim Pasha I., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal,

Raghavendra D., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal,

Veeresh K.R., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal,

Abstract:--

In the present scenario, we face a huge issue sometimes as we may require cooking during late night or any other work related to our LPG. However it would be too late to realize the value of that gas unless we realize it is over, by then it is too late as it takes 2-3 days to deliver a new cylinder. The aim of our project is to design and develop a device which is capable of detecting the depletion of gas and book cylinder automatically, to switch off the regulator when the gas is not used and to track the status of cylinder delivery, The cylinder management system would help improve productivity, as well as improve the quality, reliability and efficiency of the cylinder management process. We use WI-FI module in this project for checking the status of cylinder delivery. It is a non-renewable resource for the society to conserve the energy in the best possible way. Making the cylinder automatic relieves home-makers from the pain they take whenever there is emergency in the requirement for the cylinder and we do not know when the cylinder will go empty.

IOT based Fault Diagnostic Device for Photovoltaic Panels

Shantha Moorthy S., Assistant Professor, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal

Vanajakshi M., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal

Varsha R., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal

Spurthy., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal

Rahul Kolekar., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal

V.K. Tivari., Assistant Professor, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal

Abstract:--

A device for fault diagnostic of photovoltaic panels is presented. at the present condition there is only a static panel, but in this system maximum power tracking can be implemented using LDR. it will rotate according to the maximum sunlight. when we compare with existing system can't able to find out the fault in the appropriate panel or in a row of panels. by using the IoT the fault can be detected in which row the fault has been occurred . as the voltage decreases there is an indication of fault in the panel.

Key words:--

Photovoltaic systems, reliability, fault diagnosis, solar panels, IoT.

Smart Garbage Detection System Using Iot Through Mobile App

A poonguzhali., Assistant Professor, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal

Soundarya R., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal

Priyanka N., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal

Tejaswini A., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal

Pavithra M., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering Anekal

Abstract:--

Nowadays certain actions are taken to improve the level of cleanliness in the country. People are getting more active in doing all the things possible to clean their surroundings. The absence of efficient waste management has caused serious environmental problems and cost issues.Various movements are also started by the government to increase cleanliness. We will try to build a system which will notify the corporations to empty the bin on time. This model consists of an atmega328 controller, a few garbage bins loaded with ultrasonic sensors and they are monitored continuously through a mobile app. When the garbage will reach the maximum level, a notification will be sent to the operators, and then the employees can take further actions to empty the bin. This system will help in cleaning the city in a better way. By using this system people do not have to check all the systems Manually but they will get a notification when the bin will get filled.

Design, Analysis, Simulation and Fabrication of a High Torque & Light weight Gearbox for ATV.

Manoneet Kumar., Department of Mechanical Engineering, S.R.K.R. Engineering College, (Autonomous), Chinaamiram, Andhra Pradesh.

K.Brahma Raju., Department of Mechanical Engineering, S.R.K.R. Engineering College, (Autonomous), Chinaamiram, Andhra Pradesh.

Chatapathi Raju., Department of Mechanical Engineering, S.R.K.R. Engineering College, (Autonomous), Chinaamiram, Andhra Pradesh.

Abstract:--

To achieve high torque as compared to that of commercial gearboxes available in the automobiles, The concept of parallel line gear train has been used with required reductions in the RPM so as to achieve a High Torque required by ATVs (All Terrain Vehicles). ATVs need to have a limited maximum speed of 60 km/hr which need to be considered primarily for designing a gearbox. Moreover it must have overall light weight as compared to that of commercial gearboxes available in the market having same range of output Torque. As the overall weight is considered less for highway vehicles as it has a defined range of applications and areas of implementations. But if we talk about an ATV then it doesn't have any defined terrain of applications. Which means the overall efficiency is directly related to the overall weight of the vehicle. The objective of this paper is to Design and Fabricate a light weight-High Torque gearbox which must be compact enough to save the overall space in ATVs. As a series of Technological researches are going on for increasing the overall output power of commercial vehicles, my idea is far similar to the concept but the field of specialization is an All-Terrain Vehicles rather than defined range of Commercial Vehicles

Comparitive Study on Radio Frequency Power Harvesting Technique

Meghana B.S., Vivekananda Institute of Technology (VTU), Electronics and communication Dept. Bangalore-74
Navaneetha G.R., Vivekananda Institute of Technology (VTU), Electronics and communication Dept. Bangalore-74
Jayanth H.J., Vivekananda Institute of Technology (VTU), Electronics and communication Dept. Bangalore-74
Pooja G.M., Vivekananda Institute of Technology (VTU), Electronics and communication Dept. Bangalore-74
Ashritha Vinay., Vivekananda Institute of Technology (VTU), Electronics and communication Dept. Bangalore-74

Abstract:--

In recent years, the use of wireless devices is increasing tremendously in many applications such as mobile phones, remote sensing and many more. This has resulted in an increased demand on the use of batteries. Compared to other methods of energy scavenging,rf deals with low energy density and poses big challenges. With semiconductor and many other technologies continually struggling towards the low operating powers, batteries can be replaced by alternative sources that employs energy harvesting techniques. In this paper we present a comparative study on rfph also referred to as rf energy scavenging that includes background, system design, advantages and disadvantages and applications of rfph.

Implementation of Convolution Neural Network in Processing of Satellite Video

Ankitha Venkatesh., Department of Telecommunication, Dayananda Sagar College of Engineering Bangalore, India
Asha R., Department of Telecommunication, Dayananda Sagar College of Engineering Bangalore, India
B Nagarushitha., Department of Telecommunication, Dayananda Sagar College of Engineering Bangalore, India
Jami Sai Bandhavi., Department of Telecommunication, Dayananda Sagar College of Engineering Bangalore, India
Mr Vinod B Durdi., Department of Telecommunication, Dayananda Sagar College of Engineering Bangalore, India

Abstract:--

The video sent by satellite usually suffers severe degradation due to hardware imperfections or uncontrollable acquisition conditions. So there is a lot of scope in video processing-enhancement and reconstruction.The quality of image is improved by using Super-resolution. The main aim of satellite video processing is to obtain good Peak Signal to Noise Ratio (PSNR) and resolution of the stream of images of the video. To achieve this, Neural Networks are employed. Convolution Neural Networks is a part of Neural Networks which has been proven to be effective in areas of image processing.

Keywords:—

Convolutional Neural Networks (CNN), Super Resolution (SR), Peak Signal to Noise Ratio (PSNR).

Implementation of Area and Memory Efficient Combined ByteSub and InvByteSub Transformation for AES Algorithm

Sushma D K., Dept. of ECE, TOCE, Bangalore.
Dr. Manju Devi., Professor & Head, Dept. of ECE, TOCE, Bangalore.

Abstract:--

Efficient implementation of combined ByteSub and InvByteSub transformation for encryption and decryption in advanced encryption standard (AES) architecture using the composite field arithmetic in finite fields GF (256) or GF (28) hence this approach is more advantages than the conventional LUT method that incurs unbreakable delay, grater amount of memory and area. The proposed architecture which is combined implementing of S-box and InvS-box makes use of an enable pin to perform encryption and decryption in AES. The architecture uses combinational logic, as both S-box and InvS-box are implemented on same hardware reduces the area and gate count by large amount. Low power consumption due to resource sharing by the multiplicative inverse module of the proposed system. The proposed architecture is accoutrement on Spatan6 board using Verilog HDL in Xilinx ISE 14.6.

Key words:--

Composite field arithmetic, AES, Galois field, look-up table, FPGA..

Smart Rapid Controller

C. Sivaprakash., Assistant Professor, Department of Electronics and Communication Engineering, Sri Sairam College Of Engineering, Anekal Bengaluru.

Dhanya G S., Assistant Professor, Department of Electronics and Communication Engineering, Sri Sairam College Of Engineering, Anekal Bengaluru.

Roopa M., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College Of Engineering, Anekal Bengaluru.

Lakshmi G C., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College Of Engineering, Anekal Bengaluru.

Hemalatha D., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College Of Engineering, Anekal Bengaluru.

Ishwarya. B., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College Of Engineering, Anekal Bengaluru.

Abstract:--

This paper presents a effortless method to design the speed control system of motor drive for an electric bike. By properly selecting the current controller time delay and speed controller time delay, the 3-dB corner frequency of PI controller and the crossover frequency of current controller can be found respectively. The frequency of rotor is designed in the range between these two frequencies for proper operation. The simple method to determine the range of operating speed with appropriately tuning controller parameters, can not only speed up the design and implementation of speed controlled motor drive but also reduce the development time. An electric bike based on a brushless dc motor drive which has high efficiency, zero pollution, clean and convenient, is then designed and implemented in this paper. The hardware design based on a microcontroller is analysed and discussed. The software programming is developed in MPLAB integrated development environment. The experimental results show the feasibility and fidelity of the complete designed system.

Key words:--

Microcontroller, brushless DC motor, MOSFET, Hall sensors.

Smart Shopping Cart for Automatic Billing in Supermarket

G V Raja., Assistant Professor, Department of Electronics and Communication Engineering, Sri Sairam College Of Engineering, Anekal Bengaluru.

Manoj Kumar S., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College Of Engineering, Anekal Bengaluru.

K N Kashyap., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College Of Engineering, Anekal Bengaluru.

Kiran S., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College Of Engineering, Anekal Bengaluru.

Mohammad Ibrahim., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College Of Engineering, Anekal Bengaluru.

Abstract:--

A supermarket is a place where customers come to purchase their daily using products and pay for that. Billing in supermarket takes lot of time. Billing of products in supermarket is quite difficult because it takes more time as people have to wait for a long time in a queue for billing. Looking at the advancement in technology, we came up with an innovative idea of "Smart Shopping Cart for Automatic Billing in Supermarket". This project consists of RFID reader, motion detector sensor, Liquid Crystal Display, push buttons, switches and WIFI module. In this system product in the mart will have RFID tag, and every cart will have RFID reading. The user have to scan the Smartphone with the shopping APP to select the trolley. When a user put some product in trolley then its code will be detected using RFID reader and cost of a product added to the list and sensor will sense the direction of motion of the product for fault detection. In case, if user wants to remove some product then user should press the remove switch and product code will be detected by RFID reader. At last, while exiting the supermarket, RFID at the exit will detect the cart and the user have to scan the Smartphone with the APP for billing for paying the bill and open the gate

Key words:--

RFID Tags, RFID Reader, Anti-Theft, smart shopping cart.

Decision Support System for Finding Fetal Heart Images Using Image Processing

Mrs Kavitha D., Associate professor,Department of ECE, MVJ College of Engineering,Bangalore,Karnataka,India.
Mr Aman Mujawar., Students,Department of ECE, MVJ College of Engineering,Bangalore,Karnataka,India.
Mr Kartik Kohli., Students,Department of ECE, MVJ College of Engineering,Bangalore,Karnataka,India.
Ms Kavitha V., Students,Department of ECE, MVJ College of Engineering,Bangalore,Karnataka,India.
Ms Kavya MR., Students,Department of ECE, MVJ College of Engineering,Bangalore,Karnataka,India.

Abstract:--

Congenital heart defects(CHD) are broadly in charge of over 10% of neonatal mortality in India.The target of this work portray the use of few procedures for example image enhancement, speckle noise removal, morphology and edge identification to depict the formation of 4 chamber heart from clinical ultrasound imaging. In this paper we are going to examine the fetal 4-chambered heart within 4 months and classify the normal and abnormal, indeed cannot be identified by expertise so early, using image processing. To classify we use fetal echocardiogram images and SVM algorithm.

Keywords:--

Congenital heart defects, Fetal echocardiogram, Image enhancement, Speckle noise removal, Ultrasound imaging.

Algorithms used in Smart Waste Management for Routing Trucks in IoT – A Survey

Peddi Karthik., SCOPE, School of Computer Science Engineering, Vellore Institute of Technology, Vellore
Ravi Ashish., SCOPE, School of Computer Science Engineering, Vellore Institute of Technology, Vellore
Ananda Kumar S., Associate Professor**,** SCOPE, School of Computer Science Engineering, Vellore Institute of Technology, Vellore
Mahesh G., Associate Professor, Acharya Institute of Technology –Bangalore

Abstract:--

A new era of technology is ahead where more and more things surrounding us will get connected to the internet. Huge amounts of data will be collected from the various sensors connected to various things around us. It is necessary to efficiently utilize this data to understand the environment and take proper actions based on the data collected, which will be helpful to save many resources. This paper will analyse the various algorithms that are being used to analyse the data collected from smart waste bins which work using IoT enabled devices connected to sensors like ultrasound to collect the status of the bins. Main Algorithms like Genetic Algorithm, Top-k query based algorithm, Ant Colony Optimization algorithm, PSO algorithms and backtracking search algorithm are analysed comparatively. Other algorithms that are being used in the field are also mentioned in the literature.

Smart Street Lighting System

Savitha H S., Assistant Professor, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore

Kavya S B., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalor

Annapurna S., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalor

Chandrashekar S., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalor

Sunil R., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalor.

Abstract:--

Our model is intended to propose a model that can overcome flaws in the present street lighting system. The conventional street lamps presently using are build high intensity discharge tubes that possess major disadvantages such as hefty levels of power consumption and low efficiency. The proposed model provides a better solution with optimized management and efficiency. The main purpose of this project is to design a smart and efficient street lighting system that results in maximum energy savings by employing new technology.Our street light controller system works on hardware components and programmed micro controller. When the device is powered on the IR sensor will check whether the light intensity is more or not,if the light intensity is less than the light starts glow.When vehicles crosses street light will turn off. The IR sensor connects the microcontroller and here using solar panel for power supply and rechargeable battery. Then one relay should be connected to microcontroller for charging purpose (mobile, e-vehicles). When switch will be on that mobile should be charging. LCD should display if vehicle detects.

Keywords:-

Lightning, charger.

Android Controlled Wildlife Observation Robot

Deepa.R., Assistant Professor, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore.

Neha.M., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalor.

H.Akash Deepak., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalor.

Shivakumar S., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalor.

Namrata.B., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalor.

Abstract:--

A robot is usually an electro-mechanical machine that is guided by computer and electronic programming. Many robots have been built for manufacturing purpose and can be found in factories around the world. Designing of the latest inverted ROBOT which can be controlling using an APP for android mobile. We are developing the remote buttons in the android app by which we can control the robot motion with them. And in which we use Bluetooth communication to interface controller and android. Controller can be interfaced to the Bluetooth module though UART protocol. According to commands received from android the robot motion can be controlled. The consistent output of a robotic system along with quality and repeatability are unmatched. Pick and Place robots can be reprogrammable and tooling can be interchanged to provide for multiple applications.

Key words:--

Android Smartphone, Bluetooth module, robot, single microcontroller chip.

Implementation of Rover for Mars Communication

C.Sivaprakash., Assistant Professor, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore.

Gulzar Begum. Z., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalor.

Gracy Priyanka. D., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalor.

Shubha. L.,

Sangeetha.B.V., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalor.

Vishal S Shabadi., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalor.

Abstract:--

In the field of space exploration, rovers play a vital role. The main objective is to design a rover to explore the surface of mars and other distant planets. This paper describes how the mars rover communicates with the ground station. It includes a virtual Mars station and a virtual ground station. The Mars rover captures an image and sends it to the Mars station. Then the captured image is converted into a suitable signal so that it is transmitted to an orbiting satellite. This satellite sends the signal to the virtual ground station. It is converted to the original image on the virtual ground station. This signal is sent to another satellite if in case the communication with the first satellite fails. Rover is the most advanced machine with scientific instruments to exploit the presence of life on another planet. The rover body is called the electronics box. The rover body is strong outer layer that protects the rover's computer and electronics components and control the temperature. The communication between the station and rover will be wireless and the rover runs on wheels.

Keywords:--

Virtual Mars station, Virtual ground station, Rover, communication, soil survey, sensors.

Spasthart Speed Breakers

Geetha R., Assistant Professor, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore

Prajwal H M., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalor **S Jayanth.,** UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalor

Abarna.R.J., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore

Punithkumar N., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore

Abstract:--

The concept of this project is to have an automatic speed breaker on time demand according to the requirements. Means when there is no need of the speed breaker on the road, it disappears from the road and the road becomes flat and when there is a need then the breaker comes on the road from ground and it starts its working of slowing speed of the vehicles. In implementation of this concept, we use an iron made hemi-cylindrical speed breaker which can rotate itself using control circuitry of embedded systems. So, when needed it comes on the road by rotating itself from flat position and when not needed, it rotates itself again and gets flat and combines with flat road. Here we are using two IR sensors, first sensor is used to detect the speed of the vehicle and gives warning. Based on the speed of the vehicle the second sensor rotates the hump. So, this type of speed breaker is useful before any building for which the time is specified for coming in the building and going out from it e.g. schools, any organization etc.

Key words:--

Embedded System; Automatic Speed Breaker; ATMEL89S52.

Stabilization of Voltage by Using Buck Converters for Protection of Dc Microgrids

Suganya.J., Assistant Professor, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore

Nuthan S M., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore

Swarna Rekha A C., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore

Bhavyashree. H. N., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore

Abstract:--

This paper describes the use of a buck converter for controlling with variable input voltage. Some DC-DC converters for photovoltaic applications require that the input voltage be controlled while the output voltage is constant. This control is not so obvious and requires converter and regulator design. This paper presents a review of buck converters that a resuitable for interfacing power sources to the dc distribution bus of a micro grid. Despite the high controllability of electronic power converters, not all converter topologies behave the same during a bus voltage condition. Some topologies are able to limit Voltage, can participate in the protection scheme and can decrease the risk of catastrophic damage. Other topologies lose controllability in a situation of fault on the distribution bus and need to be protected against permanent damage by fastfuses, circuit breaker and voltage limiters. Power converters, such as back-to-back vs cs, buck-type isolated converters, full bridge mm cs and similar, can be controlled to limit the voltage, coordinated with protection devices, minimize the risk of catastrophic damage of the distribution system and increase the resilience and survivability of the microgrid.

Key words:--

DC microgrid, Voltage limitation, power converters, buck converters.

Smart Home Automation Using Internet of Things (IoT)

Ragam Krishna Naveen., National Institute Of Technology Warangal

Abstract:--

Internet of things is a concept to control objects or things through internet. When we control every home appliances using internet then we can say it as IoT based home automation. Home automation is one of the smarter, easier to control and non-human interference technology. With number of users of internet increases and the speed of response and data transfer increases in the past decade. In this home automation system using a raspberry pi by with help of internet to control home appliances like fans, lights, ACs, TVs, refrigerators and to watch live security camera which can also be stored in cloud system. This system is developed at low cost and can control every appliances in the home. IoT is one of the internet technology growing everyday between industries and consumers goods to share information and increases speed of response

Simulation Studies of Composite Insulators used in High Voltage transmission

Rahul P R., CMR Institute of Technology, Bengaluru
Rohit P R., CMR Institute of Technology, Bengaluru
Ms Keka Mukhopadhyaya., Assistant Professor, CMR Institute of Technology

Abstract:--

The aim of the project is to accurately study the electric field and potential distribution across the silicone composite insulator used in high voltage transmission systems. For simulation study, finite element method based SOLIDWORKS along with EMS software is used. Silicone composite insulators are being increasingly used for outdoor applications as they have better characteristics than porcelain and glass types. They have better contamination performance due to their hydrophobic surface. They are lighter and possess higher impact strength. Several methods have been developed for the computation of electric fields and potential along an insulator. The electric field and potential distribution around and inside the insulator when it is stressed by power frequency is examined using SOLIDWORKS along with EMS, which is a suite of programs for 2D and 3D electrostatic field analysis. The software package uses the finite element method to solve the partial differential equations that describe the behaviour of the fields. In this project, the electric field analysis and potential field analysis is carried out for 66kV, 132kV, 220kV and 400kV composite long rod insulators. The electric field distribution within and around the high voltage insulator is a very important aspect of the design of insulators. The knowledge of the electric field distribution and other electrostatic parameters are useful for detection of defects in the insulators

Power and Area Efficient Approximate Multiplier for Image Processing Application

Rakesh Huidrom., The Oxford College of Engineering

Abstract:--

Approximate computing can decrease the design complexity with an increase in performance and power efficiency for error resilient applications. This brief deals with a new design approach for approximation of multipliers. The partial products of the multiplier are altered to introduce varying probability terms. Logic complexity of approximation is varied for the accumulation of altered partial products based on their probability. The proposed approximation is utilized in two variants of 16-bit multipliers. Synthesis results reveal that two proposed multipliers achieve power savings of 72% and 38%, respectively, compared to an exact multiplier. They have better precision when compared to existing approximate multipliers. Performance of the proposed multipliers is evaluated with an image processing application, where one of the proposed models achieves the highest peak signal to noise ratio.

Smart Auto Agricare

Santosh Kumar N., Assistant Professor, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore.

Chandrashekar., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore

Manoj H., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore

Ravi kiran C B., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore

Sharath kumar S., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore

Abstract:--

Identification of the plant diseases is the key to preventing the losses in the yield and quantity of the agricultural product. The studies of the plant diseases mean the studies of visually observable patterns seen on the plant. Health monitoring and disease detection on plant is very critical for sustainable agriculture. It is very difficult to monitor the plant diseases manually. It requires tremendous amount of work, expertize in the plant diseases, and also require the excessive processing time. Hence, image processing is used for the detection of plant diseases. Disease detection involves the steps like image acquisition, image pre-processing, image segmentation, feature extraction and classification. This paper discussed the methods used for the detection of plant diseases using their leaves images. This project also discussed some segmentation and feature extraction algorithm used in the plant disease detection.

Smart Metro Station for Public Safety

P.Venogopal., Assistant Professor, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore.

Gayithri S P., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore

Pavithra N., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore

Prakruthi P., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore

Sangeetha V., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore

Abstract:--

This project presents a system, which provides a safe and secure environment in the metro station. Automatic monitoring of train movement and performance removes any possibility of human error which can happen in normal railway working. Here we are Monitoring the train and opening the pathway to people once the train had reached the metro station so the people can get into the train safely. We are using LPC2148 microcontroller and IR sensors for monitoring the train, once the train reached the station, gates will automatically open and let the people to get in the train. We have a train control unit that uses RFID technology to stop the train automatically .RFID tag will be placed on the track and the reader will be in train once the reader reads the tag the train will be stopped automatically.

Keywords:--

Safety, IR sensor, Microcontroller, RFID.

Advanced Driver Assistance Systems for Pedestrian Crossing Detection

B.Srilatha., Assistant Professor, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore.

Ramyasri R., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore

Gnanesh Kumar K., UG Scholars, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore

R. D. Vidya Rani., Assistant Professor, Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore.

Abstract:--

Pedestriancrossing has been the major purpose behind person on foot and vehicle crashes during nights as well as in highways, this project isfocused on identifyingthe obstacle crossingfor supporting an advanced driver assistance system utilizing an IR sensors mounted on vehicle. In this paper, a particular issue is addressed, which can hugely affect person's lives. To be particular, the discovery of sudden walker intersection to help drivers in maintaining a strategic distance from mishaps. This is mainly concentrated on the Indian sedan cars and their safety with affordable price & device that can be installed in all type of cars. IR sensors are used for the detection of pedestrian crossing which plays a vital role in paper proposed. In case of rash driving on unbalanced roads, the speed of the motor gets dropped down by the accelerometer. When the driver is drunk he will not be able to drive the vehicle when the alcohol content exceeds the limit which stops the engine further. Buzzer used here gives the alert in all kinds of this situation so that can drive the vehicles harmlessly on roads. Herecar reduces its speed automatically when it detects the object passing through the vehicle even when driver is in absentmood or uncontrollable condition. When the vehicle is moving on the steep or sloppy roads, sometimes it might lead to accidents due to imbalance of the vehicle. This kind of consequences are also handled and overcome. Hence avoids accidents.

Keywords:--

Literature review,project methodology, components required, conclusion, future enhancement references.

Analysis and Efficiency Exploration of Data Mining Classifiers for Chronic Kidney Disease prediction

Ranjani Murali., Computer Engineering Department, Sardar Vallabhbhai National Institute of technology, Surat-395007, India

Abstract:--

Healthcare industry has seen tremendous reforms due to increase in technology and use of Bioinformatics. The potential of using data mining in healthcare industry ranges from image and signal processing to allow extraction of useful results from large amounts of raw data in experimental molecular biology to prediction of chronic diseases via use of regular data collected from the patients for early treatment and cure. The increase in the avenues and quality of data from personal monitoring devices, android applications to IOT have enable efficient monitoring of patients. This increase in data resources can be utilized for early analysis and monitoring of patients. Certain diseases like kidney failure have few symptoms and their deferred detection leads to serious repercussions. Early detection of chronic kidney diseases and treatment can increase chances of survival and cure. This research aims to use data mining technology to predict chronic kidney disease by training classifiers to obtain rule set and patterns from the collected past patient data. This research work compares several different classifiers in their efficiency to detect chronic kidney disease in the germinant stage and proposes a cohesive system to detect chronic diseases incorporated with the patient database.

Keywords:--

Data Mining, Chronic kidney disease , Classifiers, Bioinformatics, Healthcare data, Naïve bayes, KNN, oneR, zeroR, Random forrest,Random Tree, j48, Adaboost, Logical Model tree, ANN, Fuzzy logic.

Instantaneous Buck-Boost converter for Battery Powered Devices

Renita Pinto., Department of Electronics and Communication Engineering, Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal

Avinash N J., Department of Electronics and Communication Engineering, Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal

Kusuma Shenoy., Department of Electronics and Communication Engineering, Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal

Sowmya Bhat., Department of Electronics and Communication Engineering, Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal

Abstract:--

For a low powered handy electronic applications, a highly efficient control method is necessary for getting better transients at the output. If the voltage at the output tends to fluctuate, the efficiency automatically decreases. Hence to overcome the drawbacks of the previous converters, an instantaneous buck-boost converter with mode selection is proposed. The proposed converter reduces the fluctuation, producing an immediate non-inverting constant output voltage. A constant output voltage is obtained by applying different sets of voltages at the input. The converter is designed to work in three different modes depending on whether the input voltage increases, decreases or becomes equal to the output voltage. The converter will work as buck, boost or buck boost, in three different modes. Thus as the input varies mode of operation also changes.

Keywords:--

Instantaneous buck-boost converter.

Design and Implementation of Underwater Autonomous Vehicle (UAV- VARAUNA)

C. Sivaprakash., Assistant Professor, Department of ECE, Sri Sairam College of Engineering, Anekal, Bangalore.
Kusuma.P., Department of ECE, Sri Sairam College of Engineering, Anekal, Bangalore
Jeevan.N.R., Department of ECE, Sri Sairam College of Engineering, Anekal, Bangalore
Kishore Kumar.S., Department of ECE, Sri Sairam College of Engineering, Anekal, Bangalore
Dr. Pauline. A., Department of CSE, SEA College of Engineering, Bengaluru.

Abstract:--

VARUNA is the first autonomous underwater vehicle (AUV) design and build by our team. Complete the AUV in a six month design cycle, the vehicle is fully modelled using Solid works software and extensively we will simulate the structural and flow analysis with ANSYS, STARCCM+ software's and going to manufacture almost entirely in our campus. Grid Independent studies will be carried out for the structural and flow analysis. Various Turbulence models will be select based on the literature survey for the flow analysis. Based on the Grid independent studies simulation is carried out for various speeds for 0.1-0.5 m/sec then only we can neglect the lift forces based on the wet test. During generation of the meshes, attention will be given for refining the meshes near the AUV so that the boundary layer can be resolved properly. Varuna presents a cheaper, stronger, lighter in weight of 27 kg and compact size of 0.8m*0.6m*0.6mas length, width and height of the vehicle and capable of working under 25 m depth. New advancements include full vehicle control of six degrees of freedom, a dual-hull cantilevered electronics rack and hulls, overhauled wire routing for electrical systems, and significant software for mission reliability and robustness. Varuna sensor suite comprises of inertial measurement units (IMUs), two vision cameras, and humidity sensors, water sensors for kill switches, a depth sensor and an internal pressure sensor. Returning features include a vacuum-assisted sealing system; hot-swappable battery pods, unified serial communications, and flexible mission software architecture will be install.

Keywords:--

Raspberry Pi, Stainless steel frame, Acrylic hull, Sensors, Aurdino.

An Intelligent Power Shutdown System for Power Saving Applications

N. Bhuvaneshwari., Assistant Professor, Department of ECE, Sri Sairam College of Engineering, Anekal, Bangalore
C. Sivaprakash., Assistant Professor, Department of ECE, Sri Sairam College of Engineering, Anekal, Bangalore
Abinaya shree.G., UG Scholars, Department of ECE, Sri Sairam College of Engineering, Anekal, Bangalore
Malai Selvan.G., UG Scholars, Department of ECE, Sri Sairam College of Engineering, Anekal, Bangalore
Ranjith.Y., UG Scholars, Department of ECE, Sri Sairam College of Engineering, Anekal, Bangalore

Abstract:--

The purpose of this project is to save the power used in places like libraries, schools, colleges, offices, large institution etc. where lots of power is wasted unnecessarily by keeping the fans and lights ON even when there is no one present. Thus, using a simple sensor called Passive Infrared (PIR) Sensor., it can be used to save the power. When a person enters the monitored area, the Infrared energy emitted from the living body is focused by a Fresnel lens segment and the PIR sensor activates, and gives to the microcontroller which acts as a power saving device. Incase if there is no movement of a person (say sleeping or meditating) then for the light and fan to be switched on we use body sensor to detect the body temperature and switches the appliances accordingly. We also use two different sensors namely LDR(light dependent resistor) and temperature sensor, for turning ON/OFF the light and fan in a room. In addition to this power saving system we include a system incase of any gas leakages in a room(say kitchen where gas cylinders are used) using a gas leakage detection sensor. Here we not only detect but also control the leakage using a servo motor. All these functions can be controlled, monitored and updated to a centralized system using the IOT platform, where we can get the status of the room consuming the power, the gas leakage detection notified and control the usage of power in a room in a centralized device. Thus, this article discusses the concept of how PIR sensor works to save the energy, control energy and also the concept of controlling gas leakages. Moreover, as there is need to save the energy as much as possible so as to meet the future generation, this proposed model would be a great aid to the society.

Key words:--

PIR Sensor, Alarm or Buzzer, Node MCU (Microcontroller), Internet of things, relay, appliances.

Iot Based Water Care Centre for Lakes in Bengaluru

P. Gowri., Assistant Professor, Department of ECE, Sri Sairam College of Engineering, Anekal, Bangalore
Chaithra Ontakar., UG Scholars, Department of ECE, Sri Sairam College of Engineering, Anekal, Bangalore
Navyashree R., UG Scholars, Department of ECE, Sri Sairam College of Engineering, Anekal, Bangalore
Ranjitha R., UG Scholars, Department of ECE, Sri Sairam College of Engineering, Anekal, Bangalore
Rashmi V., UG Scholars, Department of ECE, Sri Sairam College of Engineering, Anekal, Bangalore.

Abstract:--

Water pollution is one of the biggest fears for the green globalization. In order to ensure the safe supply of the drinking water the quality needs to be monitor in real time. In this paper we present a design and development of a low cost system for real time monitoring of the water quality in IOT(internet of things).The system consist of several sensors is used to measuring physical and chemical parameters of the water. The parameters such as temperature, PH, turbidity, flow sensor of the water can be measured. The measured values from the sensors can be processed by the core controller. The Arduino model can be used as a core controller. Finally, the sensor data can be viewed on internet using WI-FI system.

Key words:--

pH sensor, Turbidity sensor, Temperature sensor, Flow sensor, Arduino model, WI-FI module

Smart Helmet for Underground Workers

K.P Linija Shylin., Assistant Professor, Department of ECE, Sri Sairam College of Engineering, Anekal, Bangalore
Prathap B.P., UG Scholars, Department of ECE, Sri Sairam College of Engineering, Anekal, Bangalore
Sindhu R., UG Scholars, Department of ECE, Sri Sairam College of Engineering, Anekal, Bangalore
Sushmitha B.R., UG Scholars, Department of ECE, Sri Sairam College of Engineering, Anekal, Bangalore
Swati Nagaraj Mesta., UG Scholars, Department of ECE, Sri Sairam College of Engineering, Anekal, Bangalore

Abstract:--

A classic model of the smart helmet has been developed for the underground works in order to detect hazardous events in the underground works. The developed prototype is able to sense the quality of air, temperature, removing the helmet by worker. The air quality is determined by the saturation level of the dangerous gas such as carbon monoxide. The removal of helmet by worker is also considered as one of the unsafe event and it is detected by using Infrared (IR) sensor. Implementation consists of two modules- the helmet module and reporting (or monitoring) module. The helmet module includes ATmega328p microcontroller in conjunction with various sensors and IoT module.

Key words:--

IoT and wireless sensor network.

Wirelength and Routability for Fixed Outline Networks

S,P.Kalaiarasi., SRM University
Mr.B.Srinath., SRM University
P.Arunapriya., SRM University

Abstract:--

In this paper, we propose an SKB-tree representation for the separation of multiple supply voltage (MSV) of modules in Integrated Circuits(IC) and routability at the same time under the fixed-outline constraint. Apart from previous works, we constrain modules of the same voltage to be placed into one region for wirelength optimization. This proposed methodology results, can reduce wirelength and routing congestion in ICs. Our approach guarantees to obtain the minimum wirelength in time. Algorithm finds the position of modules in ICs to reduce the wirelength. It will dynamically allocate modules in fixed outline Integrated Circuits. This algorithm is implemented in GSRC bench circuits for wirelength optimization.

Index Terms: –

Fixed-outline, multiple supply voltage, voltage island, wirelength

Protect Against Blocking the Stochastic Game for Cognitive Radio Networks

S.Udhayakumar., joseph arts & science college., Thiruvalluvar university

Abstract:--

Several spectrum management schemes have been proposed in recent years to improve the spectrum use in cognitive radio networks. Few consider the existence of cognitive attackers who can adapt their attack strategy to the environment with a different time spectrum and the secondary consumer strategy In this article, we investigate the security mechanism when secondary users face jamming attack and offers a stochastic game environment to protect against jamming. At each stage of the players, the secondary users observe the availability of the radio spectrum, the quality of the channel and the strategy of attack through the state of the channels detected. Based on this observation, they will decide how many channels are You must reserve for the transmission of control and data messages and how to switch between different channels. By using "mini-learning" training, secondary users can gradually learn the optimal policy that maximizes the expected amount of discounted wages, defined as spectral efficiency. The proposal fixes the anti-jamming policy has shown that it achieves much better results than those achieved of myopic learning, which only maximizes the payment of each phase and a strategy of random defense, since successfully assume the dynamics of the environment and the strategic behavior of cognitive aggressors.

Iot Based Multi-Level Parking System

Fairozkhan., Electrical & electronic department, Sri Sairam College Of Engineering, Anekal, Bengaluru
Telirekha., Electrical & electronic department, Sri Sairam College Of Engineering, Anekal, Bengaluru
Rooparaj S., Electrical & electronic department, Sri Sairam College Of Engineering, Anekal, Bengaluru

Abstract:--

Internet of Things (IOT) plays a vital role in connecting the surrounding environmental things to the network and made easy to access those un-internet things from any remote location. It's inevitable for the people to update with the growing technology. And generally people are facing problems on parking vehicles in parking slots in a city. In this study we design a Smart Parking System (SPS) which enables the user to find the nearest parking area and gives availability of parking slots in that respective parking area. And it mainly focus on reducing the time in finding the parking lots and also it avoids the unnecessary travelling through filled parking lots in a parking area. Thus it reduces the fuel consumption which in turn reduces carbon footprints in an atmosphere.

Intelligent Detection of Pollution System

Mohammed Abreeth M., UG Scholar, EEE Department, Sri SaiRam College of Engineering, Bengaluru
Rakesh B S., UG Scholar, EEE Department, Sri SaiRam College of Engineering, Bengaluru
Pradeeshan K., UG Scholar, EEE Department, Sri SaiRam College of Engineering, Bengaluru
Vikram J., UG Scholar, EEE Department, Sri SaiRam College of Engineering, Bengaluru
Gopinath k., Asst professor, EEE Department, Sri SaiRam College of Engineering, Bengaluru.

Abstract:--

Every vehicle has its own emission of gases, but the problem occurs when the emission is beyond the standardized values. The primary reason for this breach of emission level being the incomplete combustion of fuel supplied to the engine which is due to the improper maintenance of vehicles and also with low Quality Fuel or Kerosene mixed Fuel. This emission from vehicles cannot be completely avoided, but it definitely can be controlled. The aim of the project is to monitor and control the pollutants in the vehicle by using the pollution control system. This pollution control system consists of sensors like MQ2 sensor and Nodemcu controller with inbuilt wi-fi module; all of them are integrated and connected to a Controller. When a vehicle attains certain threshold pollution level then the engine gets automatically switched off and an SMS is generated. This paper demonstrates an effective utilization of technology by which we save our environment by controlling the pollution of vehicles. This paper presents automated control system for air pollution detection in vehicles. As the usage of vehicles is more in these days, pollution is increasing. As a solution to the above problem we aim to build an embedded system for controlling the pollution in vehicles. When the pollution/ emission level shoots beyond the already set threshold level, there will be a LED and buzzer in the vehicle to indicate that the limit has been exceeded and this information will be send to the registered mobile number using Nodemcu module.

Key words:--

MQ2 sensor, nodemcu controller with inbuilt Wi-Fi module, vehicle emission.

Pod the Future Car

Madhavarao J., Assistant Professor, Dept of EEE, Sri Sairam College of Engineering, Bangalore
Mallikarjunraddy., Assistant Professor, Dept of EEE, Sri Sairam College of Engineering, Bangalore
Chandrashekhar V., Assistant Professor, Dept of EEE, Sri Sairam College of Engineering, Bangalore
Kumar N A., Assistant Professor, Dept of EEE, Sri Sairam College of Engineering, Bangalore
Saiprasad K V., Student, Dept. of EEE, III year, Sri Sairam College of Engineering, Bangalore

Abstract:--

Vehicle technology may arrive much sooner than most people expect and it has profound implications for transportation. The technology facilitates a rail-less personal rapid transit (PRT) system using both public and private vehicles. Personal rapid transit (PRT), also referred to as pod cars, is a private transport mode featuring small vehicles operating on electrical system. These futuristic transport vehicles will offer an environmentally friendly, clean energy alternative for urban transportation. Pod Cars are vehicles that will operate on roadways or elevated/underground shuttle networks in the near future using personal rapid transit systems. Vehicle technology may arrive much sooner than most people expect and it has profound implications for transportation. The technology facilitates a rail-less personal rapid transit (PRT) system using both public and private vehicles. Personal rapid transit (PRT) is a new public transportation system designed for swift travel in congested areas. These Pod Car networks will operate much like streetcar networks, on busy roads and highways (or underground). Pod Cars will be convenient, affordable to operate and beneficial to the environment as they are powered by electricity. The pod car operates using the electrical charge, an additional feature of pedaling is also designed in order to save energy during long distance travel.

Key words:--

Motor, Controller, Sensing unit, Batteries.

SOLAR POWERED HETEROGENEOUS WEARABLE ADAPTOR-Charger for the people onmove

Malini K V., EEE Department, Sri Sairam College Of Engineering, Bengaluru,INDIA
Jayasudha.L., EEE Department, Sri Sairam College Of Engineering ,Bengaluru,INDIA
Kavya. K., EEE Department, Sri Sairam College Of Engineering, Bengaluru,INDIA
Legeswaran.V., EEE Department, Sri Sairam College Of Engineering ,Bengaluru,INDIA
Saipriyal.M., EEE Department, Sri Sairam College Of Engineering ,Bengaluru,INDIA

Abstract:--

The following research considering proper usage of unused energy generated by humans in the form of heat and solar cells by making wearable shirt was designed and manufactured for charging the electronic devices such as mobile phone. Integration of flexible solar cells and TEG into clothing can provide power for portable electronic devices. Photovoltaic is the most advanced way of providing electricity far from any mains supply, although it suffers from the limits of ambient light intensity. Alternatively human body heat is integrated for better outcomes, .The solar & TEG circuit consist of solar panel and thermoelectric generator; composed of two sources attached. Solar energy directly from sun radiation into electricity and TEG generate electricity from temperature difference. We introduced clothing-integrated photovoltaic and TEG their scope and limitations, the status of flexible solar Cells and TEG, charge controller and system design, as well as prototype solutions for various applications. The ability to harvest energy from the environment represents an important technology area that promises to eliminate wires and battery maintenance for many important applications and permits deploying self powered devices. This project paper suggests the use of a solar energy and body heat harvester to charge mobile phone devices proves its efficiency to charge the aimed batteries under sunlight and body heat separately. The wires and other accessories were attached inside the shirt, charging pins were placed inside the pockets of shirt. The designed shirt not only serves the purpose of wearing but also charges the electronic devices. It is cheap, easy to detach, washable and gives comfort to wearer.

Key words:--

TEG,Solar panel,Harvester, Shirt.

A Novel Tracker to Catch Chain Snatchers - MEMS Technology

Sowmya S., Assistant professor, ATME College of Engineering, Mysuru,
Dr. Raghavendra Rao., Professor, NIE Mysuru.

Abstract:--

Chain snatching is a common phenomenon in daily public urban city , to provide ultimate solution for controlling chain snatching . Keeping this as a challenge I propose my research paper with integration of gold chain into GPS customized PSoC to update on real-time the location whenever the chain is snatched. The Global Positioning System (GPS) offers the capability to accurately determine location anywhere on earth in addition to speed, altitude, heading, and a host of other critical positioning data. GPS is widely used in consumer, and service markets with applications ranging from container shipping to weapons systems and handheld devices. The module triangulates its position with relation to three satellites, using a fourth satellite as a clock source. The GPS system is designed such that at any point, a GPS module on earth has a clear view of at least four satellites, barring any obstruction such as buildings, interiors of a canyon, dense foliage, or mountains. The main.c file contains all the sequential function calls that drive the program flow. The first call is made to the receive GPS Data () function, which receives data from GPS through the UART and stores it into an array. Each array depends on the maximum length of the GPS command

Multi-Purpose Solar Operated Agriculture Machine

Vijai R., Mechanical Engineering Department, Asst.Prof , Sri Sairam College Of Engineering, Bengaluru,INDIA
Santhosh H K., Mechanical Engineering Department, USN:1SB14ME096, Sri Sairam College Of Engineering, Bengaluru,INDIA
Satish H., Mechanical Engineering Department, USN:1SB14ME100, Sri Sairam College Of Engineering, Bengaluru,INDIA
Rahul M., Mechanical Engineering Department, USN:1SB14ME084, Sri Sairam College Of Engineering, Bengaluru,INDIA
Rajashekhar R., Mechanical Engineering Department, USN:1SB14ME085, Sri Sairam College Of Engineering ,Bengaluru,INDIA

Abstract:--

Rapid Solar energy technologies have attracted significant attention of researchers all over the world. Solar energy has attractive characteristics, solar energy is clean, abundant, widespread, and renewable the main aim for our project has been to develop a multi-purpose solar operated agricultural machine, which is solar powered. In this machine we have used a solar panel to capture and convert solar energy into electrical energy which in turn is used to charge two 12V batteries, which then gives the necessary power to a shunt wound DC motors. This power is then transmitted to the rear wheel through belt drives. The speed is maintained constant using geared arrangement. Consequently, in this project an attempt is made to make the electric and mechanical systems share their powers in an efficient way.

Key words:--

SOLAR PANEL, DC MOTOR, 12V BATTERY,SEED PLATE, SEED SOWING, SOIL COVERING.

Automatic Mobile Railway Bridge

Rajesh Kumar., Asst.Prof , Sri Sairam College Of Engineering, Bengaluru,INDIA
Shashank.E., Mechanical Engineering Department, USN:1SB14ME104, Sri Sairam College Of Engineering, Bengaluru,INDIA
Yahiya Ahmed., Mechanical Engineering Department, USN: 1SB14ME129, Sri Sairam College Of Engineering, Bengaluru,INDIA
Suresh Babu., Mechanical Engineering Department, USN: 1SB14ME114, Sri Sairam College Of Engineering, Bengaluru,INDIA
Sharath Patel., Mechanical Engineering Department, USN: 1SB14ME102, Sri Sairam College Of Engineering, Bengaluru,INDIA

Abstract:--

This project is used for automatically close or open the mobile platforms in between the track trains. Normally the mobile platform connects the two platforms through which the passenger can walk on the platform to reach on the next platform The main importance of the project is to avoid accidents mainly caused by crossing the railway track to go to other platform also makes physhically disabled persons to also cross the platform easier. Railway bridge damage status is monitored by the sensor and transfer through wireless modules. For easy surveying and with less delay the information can be send to the authority.

Key words:--

Railway track, bridge, platform, WILD sensor, signal light, motor.

Generation of Electricity by Using Exhaust from Bike

Mr. Durai J., Asst. Professor, Department of Mechanical Engineering, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Lohith Kumar C., UG Scholars, Department of Mechanical Engineering,, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

K Bhanu Kiran., UG Scholars, Department of Mechanical Engineering,, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Kiran Kumar T., UG Scholars, Department of Mechanical Engineering,, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Karthik P., UG Scholars, Department of Mechanical Engineering,, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Abstract:--

Here we are modifying an automobile for producing power using turbines. Nowadays in automobile field many new innovating concepts are being developed. We are using the power from vehicle exhaust to generate the electricity which can be stored in battery for the later consumption. In this project, we are demonstrating a concept of generating power in a moving vehicle by the usage of turbines. Here we are placing a turbine in the path of exhaust in the silencer. An engine is also placed in the chassis of the vehicle. The turbine is connected to a dynamo, which is used to generate power. Depending upon the airflow the turbine will start rotating, and then the dynamo will also starts to rotate. A dynamo is a device which is used to convert the kinetic energy into electrical energy. The generated power is stored to the battery. It can be stored in the battery after rectification. The rectified voltage can be inverted and can be used in various forms of utilities. The battery power can be consumed for the users comfort.

Key words:--

Turbine, dynamo, battery, electrical generator

Implementation of Area and Memory Efficient Combined ByteSub and InvByteSub Transformation for AES Algorithm

Sushma DK., M.Tech, Dept. of ECE, TOCE
Dr. Manju Devi., Professor, Dept. of ECE, TOCE

Abstract:--

The efficient implementation of combined SubByte and InvSubByte transformation for encryption and decryption in advanced encryption standard (AES) architecture using the composite field arithmetic in finite fields GF (256) or GF (28) hence this approach is more advantages than the conventional LUT method that incurs unbreakable delay, large amount of memory and area. The proposed architecture which is combined implementing of S-box and InvS-box makes use of an enable pin to perform encryption and decryption in AES. The architecture uses combinational logic, as both box and Invs-box are implemented on same hardware reduces the area and gate count by large amount. The power consumption is reduced by resource sharing of multiplicative inverse module of proposed system. The proposed architecture is implemented on Spatan6 FPGA board using Verilog HDL in Xilinx ISE 14.6.

Key words:--

Composite field arithmetic, AES, Galois field, look-up table, FPGA.

Study of Mechanical and Wear Properties of Hybrid Composite Materials with Nano Fillers for Elevated Temperature Applications

Swarnakiran S., Assistant Professor, Dept. of Mechanical Engineering, ATME College of Engineering, Mysuru
Sushanth S J., UG Student, Dept. of Mechanical Engineering, ATME College of Engineering, Mysuru
Praful M Dev., UG Student, Dept. of Mechanical Engineering, ATME College of Engineering, Mysuru.

Abstract:--

Hybrid composites by varying glass fibre reinforcement and fillers will result in a composite material which has enhanced thermal properties and can withstand at elevated temperature in the range of 2000C. The fillers used shows thermal properties like high service temperature, low coefficient of thermal expansion, maximum operating temperature, high melting point, retention of mechanical properties at elevated temperatures etc. Polymer composites, in current scenario can withstand temperatures up to 1400C-1800C. These composites, shows increased mechanical properties at high temperature due to presence of Multi-Walled Carbon Nanotubes. Further the increasing cost of metals i.e. Multi-Walled Carbon Nanotubes gave way for research of high temperature application polymer composites.

Key words:--

Elevated Temperature resistance, Activated Carbon, Chopped E-Glass, Al2O3, SiC, BaSO4, Multi-Walled Carbon Nanotubes

Water Pump Using Scotch-Yoke Mechanism

Aruna shanbog., Asst.Prof, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Murali M., Mechanical Engineering Department, USN:1SB14ME071, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Nithin kumar N., Mechanical Engineering Department, USN:1SB15ME413, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Muruli J S., Mechanical Engineering Department, USN:1SB15ME412, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Yuvaraj GY., Mechanical Engineering Department, USN:1SB15ME423, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Abstract:--

Scotch-yoke mechanism mainly used where the maximum discharge is needed. The main aim of our project is to increase the discharge of the pump.The Scotch-yoke mechanism lifts water from two sides so high output is obtained at less time.This kind of pumps is largely helpful in agricultural field.Motor capacity of 0.25hp is used to lift the water,when the motor starts rotating the pulley also starts rotating.Tje speed is maintained constant .The rotating motion of pulley is converted in to linear motion inside the cylinder this creates vaccum inside the cylinder, it helps to suck the water from the well

Al6061-Basalt and Zirconia Hybrid Composite

Dr. Anil Kumar C., Asst.Prof, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Sharath kumar M., Mechanical Engineering Department, USN:1SB15ME423, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Vishwas Manohar., Mechanical Engineering Department, USN:1SB15ME423, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Supreeth D V., Mechanical Engineering Department, USN:1SB15ME423, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Gurunandan H M., Mechanical Engineering Department, USN:1SB15ME423, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Abstract:--

The present work mainly investigates the wear behaviorproperties of Al6061/Basalt/ZrO2 hybrid metal matrix composites.Al6061/Basalt/Zr02 hybrid MMCs containing five different wt% (1, 4, 6, 8, 10%) of basalt and keeping 2 wt% of Zirconium oxide constant have been fabricated by using a liquid metallurgy (stir casting) method. The dry sliding wear tests were performed using a Pin-on disc wear testing machine on both composites and a matrix alloys over a different load range, sliding velocity of 1.66m/s and for various sliding distance of 1-6km. The final product was characterized by scanning electron microscopy (SEM) to see the uniform distribution of Basalt/ZrO2particles.Further it was observed from the experimental results that the specific wear rate.

Key words:--

Aluminum MMCs, Basalt, ZrO2, Dry sliding wear, wear resistance..

Involute Type Vertical Axis Wind Turbine for Extracting Low Wind

Sachin Ananth Telang., Asst.Prof, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106
Vageesh.P., Mechanical Engineering Department, USN:1SB14ME119, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106
Sunil.K., Mechanical Engineering Department, USN:1SB14ME112, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106
Tejasimha.B., Mechanical Engineering Department, USN:1SB14ME117, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106
Shekhar.K., Mechanical Engineering Department, USN:1SB14ME105, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Abstract:--

Rapid increase in global energy requirements has resulted in considerable attention towards energy generation from the renewable energy sources. Renewable energy plays a significant role in overcoming the increased energy demand. Wind energy has a great potential to overcome excessive dependence on fossil fuels to meet energy demand. Power can be generated and stored by a wind turbine with little or no pollution. If the efficiency of the common wind turbine is improved and widespread, the common people can cut back on their power costs immensely. The vertical-axis wind turbine incorporates 4 involute type blades in a configuration that utilizes the mass momentum of the wind to spin the blades around a central shaft. Force is applied to the blades by the wind both entering and leaving the turbine, allowing maximum extraction of energy from the wind. Vertical Axis Wind Turbines (VAWTs) are seen as a potential way of utilizing domestic wind energy sources such as low wind energy ranging from 2m/s to 6m/s free wind flow

Key words:--

Aerodynamics, involute, spiral blade, power generation, vertical axis, wind turbine

Performance Analysis of Sparsifying Transforms in the Reconstruction of MRI

Vidyashree., Student (M.tech), N.M.A.M Institute of technology, NITTE
Shrividya G., N.M.A.M Institute of technology, NITTE

Abstract:--

Magnetic Resonance Imaging (MRI) is a medical imaging technology that is used for diagnostic imaging of a wide range of diseases. Image reconstruction is much concentrated with the contrast of possibly the same value as original. This paper presents the comparison of Karhunen Loeve Transform(KLT) and Walsh Hadamard Transform (WHT) for MR Image reconstruction. The MR image used is gray scale. Original image is reconstructed using Inverse Karhunen Loeve Transform(IKLT) and Inverse Walsh Hadamard Transform (IWHT). The performance of each transform is measured by evaluating Peak Signal to Noise Ratio (PSNR), Structural Similarity Index(SSIM) and Mean Square Error(MSE) for the reconstructed gray scale of pixel size 256× 256. The quality measurement for these two transforms is measured in terms of MSE, PSNR and SSIM values. The comparison of PSNR, SSIM, MSE values between the two transforms proves that the reconstructed image using WHT transform has better quality than the KLT transform.

Verification of JESD204BTX Soft IP using Universal Verification Methodology (May 2018)

Vinay P., PG Student, ECE, RVCE, Bangalore,
ShylaShree N., Associate Professor, ECE, RVCE, Bangalore

Abstract:--

JESD204B transmitter is a part of a serialized data communication between a logic device and the data converters, which are based on the JESD204B standards. It is very much essential to perform rigorous tests on the design to confirm its acclaimed functionality. Hence, the verification of the design is an important phase in the development cycle. The verification of such a complex IP design is performed in a systematic and efficient way with the help of the universal verification methodology, which is based on the SystemVerilog. The verification environment is built using the base class libraries of the UVM to verify the functionality of the IP. The test cases are written to verify each functionality of the design and the randomized stimuli are applied to cover all the possible input scenarios. The code coverage and the functional coverage is determined and further stimuli are applied to achieve the target coverage. A total functional coverage of 100% is achieved along with code coverage of 94.25%. The verification environment can be reused with minor changes to verify the JESD204B Receiver IP.

Key words:--

JESD204B, SystemVerilog, Universal Verification Methodology.

Multifunctional Mulching Machine Operations

Sridhar CS., Asst professor, dept of mechanical engg, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106
Mohan N., UG Scholar students, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106
Ravi D Kalleshnavar., UG Scholar students, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106
Manthesh jeeragal., UG Scholar students, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106
Nishanth., UG Scholar students, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Abstract:--

Plastic mulch layer Machine attached with a two wheel walking machine was designed and developed to help farmer who plastic mulch laying for control weed in bed. It consists of a main frame with hitching point, press wheels, plasticroll stand and disc plows.to start operation, lay plastic sheets on bed and then press wheels when two wheel walking machine move forward the plastic sheet will be pulled from the spool and laid on the soil bed, the both side of plastic sheet were buried by disc plows. Testing 3 model of plastic mulch layer machine include prototype model, the model of center of agriculture engineering practice nakhonsawan and the model of LG company in the watermelon field in prachinburi province. Average furrow bed size ws 1.05*0.52*0.23 meters(based bed x bed ridge x height). The result found that field efficiency were75.32,71.12 and 90.76 percent respectively and the efficiency of mulch were
94.68,94.68 and 62.0 percent respectively.

Fabrication of Staircase Climbing Vehicle

Balaji V., Asst professor, dept of mechanical engg, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Pavan kumar N., Mechanical Engineering Department, USN:1SB14ME082, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Ranjith G., Mechanical Engineering Department, USN:1SB14ME090, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Adarsh J., Mechanical Engineering Department, USN:1SB15ME400, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Praveen Kumar R., Mechanical Engineering Department, USN: 1SB15ME414, Sri Sairam College of Engineering ,Anekal,Bengaluru-562 106

Abstract:--

The aim of this project is to develop a stair climbing vehicle by using some geared wheels of wheels. Nowadays some kinds of vehicles are available to carry the load but none of them are not able to climb the stairs and all, since the climbing is not possible they need to find someone for help, for this job stair climbing vehicle can be used. The stair climbing vehicle is a machine which can move by using two DC electric motor and which uses a combination of spur gear by using timing belts, mainly four configurations are there and these are connected to the body of the vehicle as like the ordinary vehicle, the right turn and left turn can be achieved by controlling the left and right motor, reverse can be achieved by the altering of electric supply to the motor. When the front end of the geared wheel is hit by stairs it will automatically get locked and get climbed to the next stair by the help of Timing Belts.

Keywords:

Spur Gear, Dc Motor, 12v Battery, Timing Belts And Circuits

Design of a Fixture using Reverse Engineering and CAD/CAM Approach

Ashish Mor., Maulana Azad National Institute of Technology, Bhopal
C.M.Krishna., Maulana Azad National Institute of Technology, Bhopal

Abstract:--

The machine tool industry has gone through tremendous changes since its inception. CNC machine with proper fixtures has the capacity to fill this gap. This has excited this research work on design and development of fixture for CNC. Manufacturing processes are commonly affected by the low stiffness of the components limiting the quality and precision of the final product. Precision is one of the most important issues in the machining process, and the main cause for rejection of the part is due to static deformation and the dynamic vibrations. The static deformation is mainly affected by two factors: deformation due to clamping force, and geometrical distortions due to material removal. This paper presents an analysis to manufacture fixture, using reverse engineering, for sheet metal operation. These fixtures are made by incorporating additional features in the existing fixture to suit for sheet metal machining operation. For design of fixture, computer aided design by Fusion 360 and manufacturing by CNC milling machine is used.

Keywords:

Reverse Engineering, CAD/CAM approach, Fixture for sheet metal operation.

Modelling and Analysis of Machining Characteristics of AlSiO2 composite made from rice husk on CNC Milling Machine

Hemendra Patil., Maulana Azad National Institute of Technology, Bhopal.
C.M. Krishna., Maulana Azad National Institute of Technology, Bhopal

Abstract:--

The machining of aluminum silicon oxide produced using rice husk is used in high speed conditions in CNC in light of the fact that such composites have extensive applications in the aeronautics industry. The motivation behind this examination is to research the impacts of cutting parameters on surface finish in high precision CNC processing machine because industry requires top-notch results, the forecast of surface roughness, which relies upon process parameters like speed, feed, and depth of cut, and step over ratio. An observational relationship is set up amongst dependent and independent factors from nine trials directed by Taguchi L9 orthogonal exhibit as linear regression conditions in MINITAB 18 software. The machining of AlSiO2 is done on rapid CNC processing machine utilizing face mill of diameter 50 mm and the outcomes are investigated.

Keywords:

CNC Milling, Aluminium silicon oxide, Face milling, Roughness, ANOVA Technique, Taguchi method.

Study and Analysis of Temperature Distribution on AlSiC machining on EDM

Kajal Vinayak., Maulana Azad National Institute of Technology
C.M Krishna., Maulana Azad National Institute of Technology

Abstract:--

In die sinking electric discharge machining manufacturing conditions are most important aspects to be considered as these conditions are very important to determine output parameters. Aluminium silicon carbide that are widely used automotive, defence and automotive industries posses a very mechanical and physical properties is used in this study to find the temperature distribution on its surface by using current , discharge voltage and pulse on time as input process parameters. A number of combinations were prepared with the help of Taguchi L9 Orthogonal Array and analysis is done using minitab 18 software.

Keywords:-

Electric Discharge Machine, temperature distribution, AlSiC composites, regression modelling

Automatic Speed Breaker on Time Demand over Speed Controlling System

Mr.Arun Kumar MR., Assistant Professor, Department of Mechanical Engineering,SriSairam College of Engineering ,Anekal,Bengaluru-562 106

Lohith N Marabada., UG Scholars, Department of Mechanical Engineering,SriSairam College of Engineering ,Anekal,Bengaluru-562 106

M Arun., UG Scholars, Department of Mechanical Engineering,SriSairam College of Engineering ,Anekal,Bengaluru-562 106

Madan Kumar K., UG Scholars, Department of Mechanical Engineering,SriSairam College of Engineering ,Anekal,Bengaluru-562 106

Rajeev Kumar Ojha., UG Scholars, Department of Mechanical Engineering,SriSairam College of Engineering ,Anekal,Bengaluru-562 106

Abstract:--

In this project we use the automatic speed breaker to control the speed of vehicles at the time of school and colleges. When the students come at the road, automatically the streets red light ON for their fix time, then the speed breaker comes out on the road automatically. After the fix time the breaker automatically gets OFF. In the fast speed world, there are two perspectives, one is keeping speed and another is to maintain safety mediums as well. So keeping speed is quite easy for a person and in case of safety mediums, there must be a lot of attention. For safety purpose, preventing accidents on road, there is a conventional method of having concrete speed breakers on road.

Keywords:

Metalframe,Speedbreaker,Metal,rod,Motor,Pole,Relay,Controlling cards, BUZZERLEDs.

Pipe Line Inspection Robot

Prof. AnandK A., Asst. Prof., Sri Sairam College of Engineering, Bengaluru, India
Gundala Srihari., UG Scholar, Sri Sairam College of Engineering, Bengaluru, India
Manoj S., UG Scholar, Sri Sairam College of Engineering, Bengaluru, India
Abhishek Gupta., UG Scholar, Sri Sairam College of Engineering, Bengaluru, India
Rajmohan Biradar., UG Scholar, Sri Sairam College of Engineering, Bengaluru, India

Abstract:--

Pipe inspection robot (PIR) is a device that is inserted into pipes to check for obstruction or damage. These robots are traditionally manufactured offshore, are extremely expensive, and are often not adequately supported in the event of malfunction. This project is conceived to redesign the electronics control systems one of these PIR, utilizing the existing mechanical platform. It operates reliably in confined, dark and wet environments and provides a human-wear with a digital video feed of the internal status of the pipes.These robots should as much as possibly incorporate off-the-shaft components, cheap, and potentially onsite repair.The robot allowsfor detection of cracks, buckle, corrosions,pitting and many others.

Keywords:

Pipe Inspection, defect detection, robot, digital..

Automated Guided Vehicle Commuter System

Balaji V., Asst. Prof., Sri Sairam College of Engineering, Bengaluru, India
Praful kumar BA., Mechanical Engineering, UG Scholar USN:1SB14ME414, Sri Sairam College of Engineering, Bengaluru, India
Sunny Fernandes., Mechanical Engineering, UG Scholar, USN:1SB14ME423, Sri Sairam College of Engineering, Bengaluru, India
Manish Kumar., Mechanical Engineering, UG Scholar, USN:1SB15ME410, Sri Sairam College of Engineering, Bengaluru, India
Pranav Sre., Mechanical Engineering, UG Scholar, USN: 1SB14ME080, Sri Sairam College of Engineering, Bengaluru, India

Abstract:--

Everyday commute, to and from one place to another, within an institution, or transport of materialistic components with respect to the same over longer distances, that will result in the fatigue of humans can drop the efficiency of productivity in the organization. Use of aiding sources to ease the burden of the reducing fatigue and helping achieve the required levels of morale in a company are crucial, though this may seem very small as a reason to affect productivity, human phycological factors play a major role in the welfare and overall effectiveness within an institution. Applying newer, cleaner technologies including Solar energy have attracted significant attention of researchers all over the world, solar energy is, abundant, widespread, and renewable.

Key Words:-

Automated Guidance, Sensors, Solar Panel, Line Follower System.

An Algorithm to Perform Fusion of Partially Focused Images in Fuzzy Domain

Meenu Manchanda., Vaish College of Engineering, Rohtak, Haryana, India.

Abstract:--

An algorithm for fusion of partially focused input images in fuzzy domain is proposed. Since fuzzy transform possesses important properties such as shift-invariance, ability to preserve edges in an image, ability to provide better approximation etc. and therefore has been preferred in the paper. Since important features in an image are generally larger than one pixel and therefore the proposed algorithm uses fusion rule based on more than one coefficient (i.e. window based fusion rule) to fuse input images in the fuzzy transform domain. Experiments show that the proposed algorithm is effective and the results are acceptable.

Keywords:

Image fusion, fuzzy transform, evaluation metrics.

A Proficient DLAU Design for FPGA Implementation

Ms. Vijayashree., SDM College of Engineering & Technolgy Dharwad 580002. Karnataka, India.

Abstract:--

These days, the size of systems are increasingly large scale due to the practical applications, which poses significance importance in the field of neural networks. Deep neural networks(DNN)has been employed for image recognition since it can accomplish high exactness by copying conduct of optic nerve in living animal. In order to enhance the execution and additionally to keep up low power cost, in this paper we design deep learning accelerator unit(DLAU),which is scalable accelerator for large-scale networks using field-programmable gate array(FPGA) as hardware prototype. In order to improve throughput, it utilizes the tile techniques and employ three pipelined processing units to explore the locality for deep learning applications.

Keywords:

Deep neural network, tile technique.

Best practices in Grievance Handling Mechanism: a Study in Kerala

Ms.Adithi Pradeep., Department of Commerce and Management, Amrita School of Arts and Sciences, Amrita Vishwa Vidyapeetham, Amritapuri, India

Ms.Alfiya Nihar., Department of Commerce and Management, Amrita School of Arts and Sciences, Amrita Vishwa Vidyapeetham, Amritapuri, India

Ms.Gopika Gopan., Department of Commerce and Management, Amrita School of Arts and Sciences, Amrita Vishwa Vidyapeetham, Amritapuri, India

Adv.Vinod Kumar K., Department of Commerce and Management, Amrita School of Arts and Sciences, Amrita Vishwa Vidyapeetham, Amritapuri, India

Abstract:--

In the present world, grievance in workplace is a common phenomena. Grievance means any type of unhappiness or dissatisfaction arising out of factors related to an employee's job which he thinks are unfair. A grievance arises when an employee feels that something has happened or is happening to him which he thinks is unfair, unjust or inequitable. Grievance handling is of great importance to the human resource management sector as it will directly affect the work force of the company; unless it is taken care of in the right time, in the right manner. This study is focused on methods to implement this effectively and the responses of various employees in HOMCO have been taken for the assessment of the current system. A study on grievance handling mechanism was done at the Kerala State Homoeopathic Co Operative Pharmacy (HOMCO). The HOMCO is engaged in manufacturing and sale of Homoeopathic Medicines. It is the sole supplier of Homoeopathic Medicines to hospitals and dispensaries under the department of Homoeopathy Kerala since 1980. "Grievance Handling Mechanism" at The Kerala State Homoeopathic Co Operative Pharmacy Limited is undertaken to make an exploration into the grievances faced by employees and to find possible solutions to increase the efficiency of the system.

Keywords:—

Grievance; Employee Satisfaction; Grievance handling.

Hydraulic Ram Pump

Mr.Vinodkumar Biradar., Asst. Professor, Department of Mechanical Engineering Sri Sairam College of Engineering, Anekal, Bengaluru- 562106

Abilash . R., UG scholars, Department of Mechanical Engineering Sri Sairam College of Engineering, Anekal, Bengaluru- 562106

Ravi kiran .G., UG scholars, Department of Mechanical Engineering Sri Sairam College of Engineering, Anekal, Bengaluru- 562106

Deepak nair., UG scholars, Department of Mechanical Engineering Sri Sairam College of Engineering, Anekal, Bengaluru- 562106

Kishor kumar .B.R., UG scholars, Department of Mechanical Engineering Sri Sairam College of Engineering, Anekal, Bengaluru- 562106

Abstract:--

The Design and Fabrication of a Hydraulic Ram Pump (Hydram) is undertaken. It is meant to lift water from a depth of 2m below the surface with no other external energy source required. Based on the design the volume flow rate in the derived pipe was 4.5238 × 10-5 m3/s (2.7 l/min), Power was 1.273 kW which results in an efficiency of 57.3%. The overall cost of fabrication of this hydram shows that the pump is relatively cheaper than the existing pumps.

Keywords:—

Pump; Volume Flow Rate; Power; Efficiency; Impulse Valve;Delivery Valve.

Design Andfabrication of Pod Vehicle

Aruna Shanbhog., Asst. Professor, Department of Mechanical Engineering Sri Sairam College of Engineering, Anekal, Bengaluru- 562106

Vidya M R., UG scholars, Department of Mechanical Engineering Sri Sairam College of Engineering, Anekal, Bengaluru- 562106

Karthik N., UG scholars, Department of Mechanical Engineering Sri Sairam College of Engineering, Anekal, Bengaluru- 562106

Anushar., UG scholars, Department of Mechanical Engineering Sri Sairam College of Engineering, Anekal, Bengaluru- 562106

J R Karthik., UG scholars, Department of Mechanical Engineering Sri Sairam College of Engineering, Anekal, Bengaluru- 562106

Abstract:--

Vehicle technology may arrive much sooner than most people expect and it has profound implications for transportation. The technology facilitates a rail-less personal rapid transit (PRT) system using both public and private vehicles. Personal rapid transit (PRT), also referred to as pod cars, is a private transport mode featuring small vehicles operating on mechanical and electrical system. These futuristic transport vehicles will offer an environmentally friendly, clean energy alternative for urban transportation. Pod Cars are vehicles that will operate on roadways or elevated/underground shuttle networks in the near future using personal rapid transit systems. Personal rapid transit (PRT) is a new public transportation system designed for swift travel in congested areas. These Pod Car networks will operate much like streetcar networks, on busy roads and highways (or underground). Pod Cars will be convenient, affordable to operate and beneficial to the environment as they are powered by electricity. The pod car operates using the electrical charge, an additional feature of pedaling is also designed in order to save energy during long distancetravel..

Keywords:-

Design, Chassis, Steering, Brake, Suspension, Transmission, Battery, Motor, Pedalling Mechanism.

Automatic Leg UP Landingsystem

R Vijai., Asst. Professor, Department of Mechanical Engineering, Sri Sairam College of Engineering, Anekal, Bengaluru- 562106

Chethan.B.R., Mechanical Engineering Department, USN:1SB14ME028, Sri Sairam College of Engineering, Anekal, Bengaluru- 562106

Arun kumar.S., Mechanical Engineering Department, USN:1SB14ME018, Sri Sairam College of Engineering, Anekal, Bengaluru- 562106

Dileep.B., Mechanical Engineering Department, USN:1SB14ME031, Sri Sairam College of Engineering, Anekal, Bengaluru- 562106

Vinay.H.P., Mechanical Engineering Department, USN:1SB13ME124, Sri Sairam College of Engineering, Anekal, Bengaluru- 562106

Abstract:--

In this project, we aredesigning 'AUTOMATIC LEG UP LANDING SYSTEM' for bikes. We are attaching a PNEUMATIC ACTUATOR in pillion footrest in bikes. The circuit and sensor will be installed. The materials which are used in this project are easily available in the market. The part can be easily fixed to bikes and replacement of the parts are easy. "This system can be adopted in bikes to give extra support for the riders when the bike is in low speed". This system is a combination of electrical and mechanical parts. This system can be adopted only for the bikes.

Performance Analysis of Fault Identification and Recovery in MANET

Muktarani Halawar., M.Tech(Digital Electronics), Department of ECE, SDM College of Engineering and Technology, Dharwad, Karnataka, India

Prof. Raghuram K M., Professor, Department of ECE, SDM College of Engineering and Technology, Dharwad, Karnataka, India

Dr. Shreedhar A Joshi., Professor, Department of ECE, SDM College of Engineering and Technology, Dharwad, Karnataka, India

Abstract:--

The collection of wireless mobile nodes creating a temporary network without the use of any fixed infrastructure or centralizes administration is known as Mobile Ad hoc Network (MANET) and which is playing a vital role in recent years. The different routing protocols of MANET's are modelled in Network Simulator-2(NS2) version NS-2.33 and is analysed using routing protocols DSDV(i.e Proactive routing protocol) and AODV(i.e Reactive routing protocol)...

Ascendancy of Youth Tourism on Travel and Tourism Preferences in Kerala

Vyshak K P., Amrita school of Arts and Sciences,Amritapuri,Amrita VishwaVidyapeetham,Kerala, India

Abstract:--

"Youth Tourism is defined as independent trips of less than one year by people aged between 15 to 30 years. Unlike typical vacations, youth travel is motivated by several factors, including the desire to experience other cultures, build unique life experience, and benefit from formal and informal learning opportunities from other countries, including education or work abroad. The study is concentrated among the youth population of Kerala, who possesses a deliberate and distinguishing views on travel and touring idea. The data collected from an age group of 15-30 in Kerala. The study tries to evaluate the attitudes and choices of the youth on travel and tourism . A focus is given on measuring the influence of youth on travel. And study also analyses the impact of tourism destinations on youth, and their preferences.

Nivartaka -an eco-Friendly Multipurpose Vehicle

Divyaprabha., ASSITANT Proffessor, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Niharika S., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
S Hemalatha., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Swetha B., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru
Princess R., UG Scholars, Department of Computer Science & Engineering, Sri Sairam College of Engineering, Bengaluru

Abstract:--

"Nivartaka" is a multipurpose Unmanned Aerial Vehicle (UAV) is an important technology . . The quadcopter is built using bamboo sticks which is light and strong serves as a multipurpose vehicle. Application which is developed in this research has a purpose to simulate condition in various zone for spraying the pesticides. Various missions can be done using UAV such as surveillance in unknown areas, forestry conservation, and spying enemy territory. It is used in medical field for transporting medicines and drugs. Platform used in our experiment is a simple quad copter mounted with a APM 2.5 control board. A GPS module and the wifi telemetry unit is incorporated in this UAV which would include live video broadcasting system. The robotic vehicle will search and recognize our combatants in the battle ground and locate their location. It would also help us to navigate and supply food, medicines and other necessary amenities in the mountain areas where emergency occurs.

Keywords: -

APM2.5,GPS, Telemetry,Andriod application.

Design and Impact Analysis of Go-Kart Vehicle

Harish Babu L., Asst.Professor, Department of mechanical Engineering
Aravind R., UG Scholars Department of mechanical Engineering
Hari Prasath D., UG Scholars Department of mechanical Engineering
Arun Prashath M., UG Scholars Department of mechanical Engineering
Benedict Antony A., UG Scholars Department of mechanical Engineering
Mittu Kumar Jha., UG Scholars Department of mechanical Engineering.

Abstract:--

Design of component for automobile consists of three main principles:

1. Optimization
2. Safety
3. Comfort

The primary objective of the chassis and frame is to provide a 3-dimensional protected space around the driver that will keep the driver safe. The primary objective of the roll cage is to provide a 3-dimensional protected space around the driver that will keep the driver safe. These objectives were met by roll cage material that has more strength and less in weight giving us an advantage in reduction of weight. The strength of roll cage and chassis is increased by almost eliminating the bends and joints during the welding. The modeling of structure and design of roll cage and chassis is done by the software SOLIDWORKS.

To start with the initial design of the frame and chassis , some design guidelines are to be set .They include intended transmission, steering and the most important part is placing and fixing them in the correct placement , mounting of seat , design features and manufacturing methods

Vehicle Accident Detection Using Black box System

C Sharon RojiPriya., Assistant Professor, Department of Computer Science & Engineering Sri Sairam College of Engineering, Bengaluru

Chaithra A., UG Scholars, Department of Computer Science &Engineering,SriSairam College of Engineering, Bengaluru

Anitha A., UG Scholars, Department of Computer Science &Engineering,SriSairam College of Engineering, Bengaluru

Sri Harsha B S., UG Scholars, Department of Computer Science &Engineering,SriSairam College of Engineering, Bengaluru

Shaikh Mohammed Ahmed Raza.., UG Scholars, Department of Computer Science &Engineering,SriSairam College of Engineering, Bengaluru

Abstract:--

As per the World Health Organization (WHO), more than a million individuals on the planet pass on every year on account of vehicle mishaps. Regardless of mindfulness cause, this issue is as yet expanding because of rider's poor practices, for example, drunk driving, speed driving , riding without adequate rest, riding with no cap insurance, and so forth. This paper presents automatic vehicle accident detection and reporting System using black box. The proposed system use ARM controller, black box, LCD, GPS module and GSM modem. This framework is placed in moving vehicle to detect accident and report to In Case of Emergency (ICE). In case of accidentARM controller communicate with GPS module in prefixed terms and sends the vehicle location information such as Latitude and Longitude to first responder over GSM. The proposed system gather position information to manage focus using GPRS by Google Earth. MEMS sensor detect the surplus vibration case of accident and activate the above frame work, send the message to specific server and Black box. This prototype can be designed with minimum number of circuits. The VBBS can contribute to constructing safer vehicles, improving the treatment of crash victims, helping insurance companies with their vehicle crash investigations and enhancing road status in order to decrease the death rate.

Keywords:—

Black Box, ARM, GSMtechnology, Microcontroller.

A study on Aluminum Nitradation process: Literature Survey and development of frame work for processing AlN

Akarsha Kadadevaramath., R&D Center, Department of Mechanical Engineering, Siddaganga Institute of Technology, Tumkur-572103, Karnataka State India

V. Auradi., R&D Center, Department of Mechanical Engineering, Siddaganga Institute of Technology, Tumkur-572103, Karnataka State India

Prakash Kurma Raju., Intel Technology India Pvt Ltd Bangalore- 560103, Karnataka State India

Abstract:--

Aluminum Nitridation (AlN) has lot many applications in the automobile industry, aerospace, electronics where a high temperature application is required and other areas. There are various techniques, methods and approaches are used by various researchers in this area. Hence, this article presents a brief review of the research progress achieved on Preparation and feasibility formation mechanism in the field of Aluminum Nitride (AlN) and proposes the research objective and frame work developed for Aluminum Nitride formation for electronic industry applications

Keywords:—

Aluminum Nitridation, Synthesis, Thermal conductivity, Direct Nitridation, Oxygen Pressure.

Design and Development of Boring Trepanning Assocation (Bta) Tool with Surface Finish Up To RZ 0.102µM and RA 0.587µM

Baba Rupesh B., Siddaganga Institute of Technology, Tumkur

Abstract:--

Boring Trepanning cutting tool (BTA) Ra (Average surface roughness) and Rz (difference between the tallest peak and the deepest value in the surface) are two important criteria of surface finish. And these surface finish values achievement by BTA cutting tool presently by the industries is very difficult and are not able to meet and are expected to meet better Ra values as per Ra (0.2µ) Indian standards .Hence the Objectives of project works are set to Design of boring trepanning Association (BTA) Tools for manufacturing of shock absorbs and landing gears to implement the Ra and Rz Values.and conducted Performance Analysis of BTA Tools for cutting aluminium shocks absorber.

17th-18th May 2018 **ICASET – 18** **ISBN: 978-81-937041-7-2**

Organized by:

Sri Sairam College of Engineering, Anekal, Bengaluru, Karnataka

And

Institute For Engineering Research and Publication (IFERP)

Automatic Street Light Control System Using Microcontroller

Dr. B. Shadaksharappa., Head (CSE) & Vice Principal, Sri Sairam College of Engineering, Bangalore
Rakesh .G.R., UG Scholars, Department of Computer Science and Engineering, Sri Sairam College Of Engineering
Punshiba Thingom., UG Scholars, Department of Computer Science and Engineering, Sri Sairam College Of Engineering
Mallikarjuna., UG Scholars, Department of Computer Science and Engineering, Sri Sairam College Of Engineering

Abstract:--

This paper aims at designing and executing the advanced development in embedded systems for energy saving of street lights. Nowadays, human has become too busy, and is unable to find time even to switch the lights wherever not necessary. The present system is like, the street lights will be switched on in the evening before the sun sets and they are switched off the next day morning after there is sufficient light on the roads. this paper gives the best solution for electrical power wastage. Also the manual operation of the lighting system is completely eliminated. In this paper the two sensors are used which are Light Dependent Resistor LDR sensor to indicate a day/night time and the photoelectric sensors to detect the movement on the street. The microcontroller PIC16F877A is used as brain to control the street light system, where the programming language used for developing the software to the microcontroller is C-language. Finally, the system has been successfully designed and implemented as prototype system.

Key-Words: -

Street light, LDR, photoelectric sensor, microcontroller, energy saving and circuit design

Auto-Smart Fertilizer

Halesha H R., Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore
Kavya G K., Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore
Kavya D S., Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore
Kavyashree N V., Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore
Manjushree B R., Department of Electronics and Communication Engineering, Sri Sairam College of Engineering, Anekal, Bangalore

Abstract:--

Country like India, the economy is heavily dependent on agriculture. Still we are not able to make optimal, profitable and sustainable use of our agricultural land. Crop production is strongly influenced by soil properties, rooting depth, nutrition and their interaction with climate. For new agricultural area, without knowing or monitoring the important parameters of soil, cultivation will be difficult and so the farmers suffer financial losses. Soil testing is the basis for nutrient recommendation and formulated fertilization. Soil test will help to ensure the application of enough fertilizer to meet the requirements of the crop. The farmers find it difficult to know the proper amount of fertilizer which is required for particular type of crop which yields better productivity. Development of agriculture using technology will be very much useful in cultivation. The main target of our work is to develop a device which continuously monitors soil fertility and provides sufficient fertilizer required.

Key words:--

Rapitest device, Microcontroller, LCD display, Relay.

Three Mode Steering Systems for Light Weight Automobile Vehicles

Harish Babu L., Asst.Professor, Department of mechanical Engineering
Arun Kumar N., UG Scholars, Department of mechanical Engineering
Avinash Sharma., UG Scholars, Department of mechanical Engineering
Kanthi Prashant Prabhu., UG Scholars, Department of mechanical Engineering
Shivakumar S Huded., UG Scholars, Department of mechanical Engineering

Abstract:--

This Steering is the term applied to the collection of components, linkages, which will allow for a vehicle to follow the desired course. An exception is the case of rail transport by which rail tracks combined together with railroad switches provide the steering function. The most conventional steering arrangement is to turn the front wheels using a hand–operated steering wheel which is positioned in front of the driver. Other arrangements are sometimes found on different types of vehicles, for example, a tiller is rear–wheel steering. Tracked vehicles such as tanks usually employ differential steering that is, the tracks are made to move at different speeds or even in opposite directions to bring about a change of course. In convertible four wheel steering with three mode steering can be changed as needed which assists in parking at heavy traffic conditions, when negotiating areas where short turning radius is needed and in off road driving.

Response of Retaining Wall to Support Ob Dump under Passive Earth Pressure Using Limit Equilibrium Method

Chidanand M Jadar., Asst. Professor, Department of Civil Engineering, Acharya Institute of Technology
Harshith K R., 8th sem, B.E. Civil engg., Acharya Institute of Technology
Darshini S Shekar., 8th sem, B.E. Civil engg., Acharya Institute of Technology

Abstract:--

Retaining walls are the most common structures which are used support the backfill. These structures are often seen at road and railway embankments, construction of residential and civil buildings and etc. In recent days, retaining walls are also constructed to hold back the soil of mine over burden dumps. In the present study, a 5m retaining wall is analyzed over passive earth pressure. The wall is assumed to be vertical with rough surface. Soil parameters like cohesion, adhesion, angle of internal friction of soil are considered. Normally the density of OB dumps is noticed to be higher than that of regular density of soil what is considered in traditional analysis of the retaining wall. Hence, an augmented weight portions are considered in the present analysis. Failure surface is varied by changing the values of rupture surface angles. Using limit equilibrium method, equations to determine passive earth pressure is derived. Simplex iteration technique is used to optimize the equation of passive earth pressure. A detailed parametric study shows the variation of coefficient of passive earth pressure against the variation of parameters like friction angle, cohesion, and adhesion and unit weight of soil. A sensitivity analysis is also done for the behavior of rupture surface by changing different soil parameters.

Keywords:—

Over Burden Dumps, Retaining walls, Limit equilibrium method, Optimization.

Smart Water Distribution System

Lokeshwari M., Department of Civil Engineering, R.V.College of Engineering, Mysore road, Bengaluru 560059
Amar R., Department of Civil Engineering, R.V.College of Engineering, Mysore road, Bengaluru 560059
Karthik G., Department of Civil Engineering, R.V.College of Engineering, Mysore road, Bengaluru 560059

Abstract:--

In most of the water distribution network system, major amount of water losses due to leakage and faulty joints. This paper deals with the design and real-time monitoring of water leakage detection with the help of sensors. The system consists of vigorous and reliable wireless sensor network, which constitute electrical devices along with the Arduino Uno for collection of data from different sensors (Pressure, flow rate, Vibration etc.). Location of leakage and amount of water loses through the water go, identified through the sensors and other collected information are dumped into the cloud through the gateway. Subsequently users can get the data using Wi-Fi module. As soon as a leak takes place, the solenoid valve will automatically close and reduces further loss of water. Implementations of Smart Water distribution network system helps for real-time monitoring and reduces the water losses as well as enhance the water conservation.

Keywords:—

Water Leakage, Sensors, Arduino Uno, Distribution system

Real Time Water Quality Surveillance System

Naveen Kumar S., Department of Computer science and Engineering, Impact college of Engineering and applied sciences, Sahakar Nagar, Bangalore-560092

Monika R., Department of Computer science and Engineering, Impact college of Engineering and applied sciences, Sahakar Nagar, Bangalore-560092

Nafeesa Sulthana N S., Department of Computer science and Engineering, Impact college of Engineering and applied sciences, Sahakar Nagar, Bangalore-560092

Swathi R., Department of Computer science and Engineering, Impact college of Engineering and applied sciences, Sahakar Nagar, Bangalore-560092

Abstract:--

Nowadays Internet of Things (IoT) is used in different region of research for scanning, collecting and examining the data from remote locations. Due to the rapid increase in worldwide industrial output, carrying water from rural to urban and the over exploitation of water resources, the calibre of water available to people has collapsed greatly. In order to secure the safe supply of the drinking water the calibre needs to be scan in real time. In this paper we presents an architecture and evolution of a low cost system for real time scanning of the water calibre in IOT (internet of things).The system consist of several sensors helped to measure the parameters of the water. The parameters such as water level, temperature, PH, turbidity, conductivity can be measured. The measured values from the sensors can be refined by the microcontroller. Finally, the sensor data can be noticed on the internet using cloud computing. The high usage of fertilizers in farms and other chemicals mining and construction zone have subsidized enormously to the long-term reduction of water calibre globally. The availability of good calibre of water is outstanding in avoiding outbreaks of water-borne diseases as well as developing the calibre of life. The development of a surface water monitoring network is a critical element in the assessment and protection of water quality. We advanced a model of easy to install technology by which the different surface of water (e.g. rivers, lakes) calibre signals can be measured. This paper presents a smart water calibre system.

Keywords:—

Internet of things, water calibre scanning system, pH, Turbidity, Temperature, Wireless sensor network

Multidisciplinary Agri Bot

Rajesh kumar.N., Asst.Professor, Department of mechanical engineering, Sri Sairam College of engineering, Anekal, Bangalore 562106

Adithya.C., UG Scholars, Department of mechanical engineering, Sri Sairam College of engineering, Anekal, Bangalore 562106

Madan Kumar. L., UG Scholars, Department of mechanical engineering, Sri Sairam College of engineering, Anekal, Bangalore 562106

Akshay Kumar.V., UG Scholars, Department of mechanical engineering, Sri Sairam College of engineering, Anekal, Bangalore 562106

Girish.P., UG Scholars, Department of mechanical engineering, Sri Sairam College of engineering, Anekal, Bangalore 562106

Abstract:--

This robotic vehicle is an agriculture machine of a considerable power and great soil clearing. This multipurpose system gives an advance method to sow, plow and cut the crops with minimum man power and labor making it an efficient vehicle. The machine will cultivate the farm by considering particular rows and specific column at fixed distance depending on crop The whole algorithm, calculation, processing, monitoring are designed with motors & sensors interfaced with microcontroller.

Hall Effects on Hydromagnetic Flow of a Jeffrey Fluid in an Asymmetric Channel with Peristalsis

S. Jyothi1 , M. V., Department of Mathematics, Mangalore Institute of Technology and Engineering, Moodbidri-574227, India
Subba Reddy., Department of CSE, Sri Venkatesa Perumal College of Engineering & Technology, Puttur-517583, A.P., India.
Gangavathi P .,. Department of Mathematics, Sri Sairam College of Engineering, Bengaluru, Karnataka, India

Abstract:--

During the last 40 years researchers have extensively focused on the peristaltic flow of Newtonian fluids. Especially, peristaltic pumping that occurs in biomechanical systems such as roller and finger pumps. In particular, the peristaltic pumping of corrosive fluids and slurries could be useful as it is desirable to prevent their contact with mechanical parts of the pump. In these investigations, solutions for peristaltic flow of the fluid, the geometry of the channel and the propagating waves were obtained for various degrees of approximation. Much attention had been confined to symmetric channels or tubes, but there exist also flows which may not be symmetric. Mishra and Rao (2003) studied the peristaltic flow of a Newtonian fluid in an asymmetric channel in a recent research. In another attempt, Rao and Mishra (2004) discussed the non-linear and curvature effects on peristaltic flow of a Newtonian fluid in an asymmetric channel when the ratio of channel width to the wave length is small. An example for a peristaltic type motion is the intra-uterine fluid flow due to momentarily contraction, where the myometrial contractions may occur in both symmetric and asymmetric directions. An interesting study was made by Eytan and Elad (1999) whose results have been used to analyze the fluid flow pattern in a non-pregnant uterus. In another paper, Eytan et al. (1999) discussed the characterization of non-pregnant women uterine contractions as they are composed of variable amplitudes and a range of different wave lengths. Peristaltic transport of a power law fluid in an asymmetric channel was investigated by Subba Reddy et al. (2007). Ali and Hayat (2007) discussed peristaltic flow of a Carreau fluid in an asymmetric channel. Hayat et al. (2008) studied the effect of variable viscosity on peristaltic flow of a Newtonian fluid in an asymmetric channel

5th International Conference on Applied Science Engineering and Technology

Anekal, Bengaluru, Karnataka, 17th - 18th May 2018

Design and Fabrication of Impact Attenuator for Supra SaeIndia

Sachin Anant Telang., Asst.prof, Sri Sairam College of Engineering, Bengaluru, Karnataka, India

Geera Rakesh kumar., Mechanical Engineering Department, USN: 1SB14ME033, Sri Sairam College of Engineering, Bengaluru, Karnataka, India

Munishyamireddy., Mechanical Engineering Department, USN: 1SB13ME062, Sri Sairam College of Engineering, Bengaluru, Karnataka, India

Madhuri.S., Mechanical Engineering Department, USN: 1SB14ME057, Sri Sairam College of Engineering, Bengaluru, Karnataka, India

Shyla.N., Mechanical Engineering Department, USN: 1SB14ME107, Sri Sairam College of Engineering, Bengaluru, Karnataka, India

Abstract:--

The impact attenuator is an energy absorbing device installed forward of the front bulkhead of the SUPRA car with the function to absorb energy and to protect the driver from a sudden change of momentum experienced during an event of a collision. It achieves that by deforming plastically and absorbing a part of the total energy involved during a collision. The aim of this paper is to compare the computer simulated results of energy absorbing capabilities of Aluminium 6061 T6 foils and Foam for impact attenuator using ANSYS with that of the actual drop test values and compression test values performed average deceleration impact of vehicle to be less than 20g, which is required according to SUPRA design rules.

Studies on Biocompatibility of shape memory alloys: A Review

Vybhavi Shivakumar., R&D Center, Department of Mechanical Engineering, Siddaganga Institute of Technology, Tumkur-572103, Karnataka State, India

A.G.Shivasiddaramiah., R&D Center, Department of Mechanical Engineering, Siddaganga Institute of Technology, Tumkur-572103, Karnataka State, India

C.Shashishekar., R&D Center, Department of Mechanical Engineering, Siddaganga Institute of Technology, Tumkur-572103, Karnataka State, India

Abstract:--

Shape memory alloys (SMAs) are metallic systems that "remember" their original shapes. These alloys undergo martensitic phase transformations because of applied thermo mechanical loads and are capable of recovering permanent strains when heated above a certain temperature. SMAs have drawn significant attention and interest in recent years in the field of medical and commercial development, due to their unique and superior properties; this development has been supported by fundamental and applied research studies. The word biocompatibility refers to the interaction of a living system or tissue with a finished medical device or component materials. In the simplest sense, a biocompatible material or device does not harm the patient. Biocompatibility is vital for medical devices. Both local and systemic reactions are evaluated. Hence, this article presents an extensive review on the research progress achieved and taking place in the field of "biocompatibility of shape memory alloys"; including a historical overview, summary of recent advances and new application opportunities.

Key Words:-

Shape memory effect, Biocompatibility, Applications

Traction Motor Control for Regenerative Braking In Hybrid Tracked Electric Vehicles

Selvathai T., Scientist E, Combat Vehicles Research and Development Establishment, Avadi,Chennai-60005
Marin JC., Department of Electronics and Communication Engineering, SSN College of Engineering, Kalavakkam-603110
Jawahar A., Department of Electronics and Communication Engineering, SSN College of Engineering, Kalavakkam-603110

Abstract:--

In recent years, interest towards Electric Vehicles (EVs) and Hybrid Electric Vehicles (HEVs) have increased as a substitute for traditional Internal Combustion Engine (ICE) powered vehicles. The paradigm shift towards clean and green energy sources for traction is to reduce emission levels and for other socio political reasons related to mammoth consumption of fossil-based fuel used in ICE-powered vehicles. With the advent of newer electric propulsion systems, greener vehicles have become the most promising alternative for conventional vehicles. Operation of Brushless DC (BLDC) motor for regenerative braking of a Hybrid Electric vehicle is described in this paper..

Keywords:--

Hybrid Tracked Electric Vehicle, BLDC Commutation scheme, Regenerative braking, RBS Strategy

An Effective Model for Mutagenesis Prediction Using Multi Relational Fuzzy Tree

Dr. C.R.Vijayalakshmi., Assistant Professor, Dept.of CS, MKUCA, Theni,TN
Dr. P.G Sivagaminathan., Assistant Professor, Dept.of CS,CA&IT, Karpagam academy of Hr. Education,Coimbatore,TN
Dr.M.Thangaraj., Associate Professor, MK University, Madurai, TN

Abstract:--

Most of the real world applications such as Loan approval, Credit card fraud detection etc uses relational databases which contain multiple relations that are inter-linked with the help of primary and foreign keys. It is very tricky to examine these applications with the help of traditional classification methods such as RIPPER and RIDOR. These methods are suitable for single relation and generate simple and comprehensible rules. But it cannot handle uncertainties and noises present in the real dataset. This paper presents a novel method for generating multi relational classification model for mutagenesis prediction. The classifier is constructed based on fuzzy extension of decision tree. The experimental results show the efficiency of the proposed method compared to the existing algorithms..

Keywords:--

CrossMine, Multi relational classification, Mutagenesis, target relation, tuple id propagation

Barriers in Understanding the Enunciation in English

Mr P. Luther Benny., M.A (English), M.Ed., M Phil (English) (Ph.D.).Assistant Professor, Department of English, Sri Sairam College of Engg. ,Anekal,Bangalore

Mr Vinayakaswamy Negalurmath., Lab Instructor, Department of CSE. Pavan Kumar Kampli 2nd Semester, ECE Dept.

Manoj V., 2nd Semester, Mech. Dept.

Prasanna R., 2nd Semester, CSE Dept. Sri SAIRAM College of Engineering, Anekal, Bengaluru.

Abstract:--

This artefact expounds the barriers in the English Language learners encounter while procuring the pronunciation in the English language. In this competitive world, we do have to contemplate a multiple number of Facets while mastering the enunciation skills in English Language. It has as a purpose to accentuate the inevitability for the students to master the pronunciation. It illustrates regarding the interference in the phonemes of the mother tongue has in the learners' way of speaking. The article emphasises on the prominence of learning the English Phonetic transcription in order to facilitate you to augment your enunciation skills.

Keywords:-

Difficulties. Enunciation, Phonetic Transcription, Phonemes, Intervention.

ICT learning and its Butterfly Effects on Students' Academic Performance

Adarsh S Kumar., Department of Commerce and Management, Amrita School of Arts and Sciences, Amritapuri, Amrita Vishwa Vidyapeetham, Kerala

Akhila S Anil., Department of Commerce and Management, Amrita School of Arts and Sciences, Amritapuri, Amrita Vishwa Vidyapeetham, Kerala

Bhanupriya L., Department of Commerce and Management, Amrita School of Arts and Sciences, Amritapuri, Amrita Vishwa Vidyapeetham, Kerala

H Jyothilakshmy., Department of Commerce and Management, Amrita School of Arts and Sciences, Amritapuri, Amrita Vishwa Vidyapeetham, Kerala

Abstract:--

In this knowledge driven era, there exist a tight competition among the students. High academy performance is a key factor which evaluates a person's knowledge and eligibility criteria for higher studies. Teaching method has an impact on student's learning behavior and performance. Introduction of ICT learning has created a massive change in the education sector. This research is focused on the influencing effect of ICT learning among the student community. For which, we are introducing an APM(Academic Performance Management) proposing that ICT learning technique has a greater impact on student performance through developing subject interest among students.

Key words:-

Learning, ICT learning, academic performance, interest, memory, time.

Semi-automated Puffed Rice Machine Using Agricultural Waste Burnt Low Smoke Stove

Anirudh Mallya U., Sahyadri College of Engineering and Management, Mangalore
Ashwith I Mendonca., Sahyadri College of Engineering and Management, Mangalore
Allan Loy D'souza., Sahyadri College of Engineering and Management, Mangalore
Jonathan Rodrigues., Sahyadri College of Engineering and Management, Mangalore
Manjunath Patel G.C., Sahyadri College of Engineering and Management, Mangalore
Prasanna Kumar., Sahyadri College of Engineering and Management, Mangalore

Abstract:--

Production of puffed rice is still more popular in rural areas at different parts of our country. Till date no mechanized industries developed yet for the production of puffed rice in large scale. Traditionally thousands of people are actively involved to fulfil the production demand. The currently practiced production method is proven inefficient, due to enormous stress experienced by human during production, seeks minimum three human operators who were subjected to work in hazardous environment (i.e. high heat and radiation, work with lot of smoke and dust) during the production process. This results in serious threat to human health and production cost. Thereby, attempts are made to design and fabricate a low cost semi-automated puffed rice machine. The agriculture waste (i.e. dried rice husk, arecanut shells and leaves) is used as energy source for the production of puffed rice. The new semi-automated portable puffed rice machine is capable to operate with single user, low smoke and cost.

Keywords:--

Puffed rice machine, Agriculture waste, and low smoke stove.

Optimization of Clock Power in Full Chip Clock Distribution

Akshata Mathad., M. Tech VLSI Design and Embedded Systems, RV College of Engineering, Bengaluru
Namita Palecha., Department of Electronics and Communications, RV College of Engineering, Bengaluru
Arpit A. Gandhi., Componenent Design Engineer, IACG-BDC, INTEL Technology India Pvt. Ltd,, Bengaluru

Abstract:--

Major component which decides the performance of digital circuit is Clock, which is a multi-fanout signal. If clock frequency is high, so the performance. In this paper techniques to reduce clock network length are discussed. Clock nets are first migrated from higher technology node to lower technology node and then modified to achieve less dynamic capacitance by reducing the length of clock net. Here, clock network of Full Chip is studied and identified the corner cases by using a Perimeter as an objective function where clock network could be optimized. Minimum Length Routing is done using Intel Custom Tools, which ultimately reduced the capacitance of the clock network. Clock network is optimized using two techniques; 1. Trunk router and 2. Netcell Estimation router. Experimental results show that 20.91% and 6.01% reduction in clock net length by using Trunk and Netcell Estimation routers respectively.

Keywords:--

Clock, Technology node, Full Chip, Intel Custom Tools, Trunk Routing, Netcell Estimation Routing, Clock pattern

Timing Optimization in Engineering Change Order Stage for Functional Unit Blocks in Soc Design

Asha Y N., PG Student, VLSI Design & Embedded systems, R. V. College Engineering, Bangalore
Dr.Shilpa D R., Associate Professor, R. V. College Engineering, Bangalore, Bangalore, India
Mr. Arun Seetharaman., Digital Design Engineer, Intel technologies India Pvt.ltd, Bangalore, India

Abstract:--

Engineering Change Order (ECO) is important in correcting the late-found errors that arise commonly in designing sequential circuits. As the number of corners and number of modes increases, the possibility of setup and hold conflict raises. Hold times violations are critical as they lead to permanent failures in the design. A hold time ECO flow is proposed in the paper to fix negative min path violations. It uses buffer insertion and cell replacing as the main techniques to increase the delay of the path so as to make the margin more positive. The proposed methodology increases the time margin by 74.77% .The total negative slack and worst negative slack got improved by 91.68% and 87.01% respectively. It is found that 63.87% hold violated paths can be fixed using the proposed methodology.

Keywords:--

Setup time, hold time, Engineering change order, negative paths, skew, timing margin, Total Negative Slack (TNS), Worst Negative Slack (WNS).

Fortification of Cold Storage Management System for Farmers Using IoT

Thasmiya., Student, Impact College of Engineering and Applied Sciences, Bengaluru, Karnataka 560092

Abstract:--

The Internet of Things (IoT) is a new evolution in technological advancement taking place in the world today. This paradigm allows physical world objects in our surroundings to be connected to the Internet. This idea comes to life by utilizing two architecture; the Sensing Entity in the environment that collects data and connects itself to the cloud and the Cloud Service that hosts the data from the environment and controls the parameters. To provide a diversity of vegetables over a long season, small-scale vegetable producers need to use energy efficient cold storage methods to reduce costs and extend the revenue period while maintaining produce quality and freshness. The farmers need to find ways to increase profitability while adhering to sustainability principles. During storage quantitative as well as qualitative losses occur due to insects, rodents and micro-organisms. Our problem statement is to design an efficient cold storage unit using as much natural cooling and ventilation using the image sensor for visualization of all activities and display it to user in real time.

Holography

Dr. Gangavathi P., Associate professor and Head, Sri SaiRam College of Engineering, Anekal, Bangalore.
K GaneshKumar Reddy., UG Student, Sri Sai Ram College of Engineering
K Nikhil Kumar., UG Student, Sri Sai Ram College of Engineering
Sree Balaji N S., UG Student, Sri Sai Ram College of Engineering
Shrishail., UG Student, Sri Sai Ram College of Engineering

Abstract:--

Holography is study of holograms and is a modern imaging technique which was created by the research and applications of numerous physicists, chemists, mathematicians, engineers and scientists, and which is still being continued to develop with this technique. Recording and storage of light and sound, and reconstruction of the same at desired time and space is intended mainly used scientific and technological research. The types of holograms based on their colours, dimensions and angle of projections...etc. The recording and reconstruction of a normal hologram and formation of the hologram. In this study we have shown that how holograms are constructed using multiple projectors, advantages and its applications

Design and Development of Single Screw Extruding Machine for Bio-Composites

Vinod Kumar Biradar., Asst. Professor Department of Mechanical Engineering Sri sairam college of Engineering Anekal Bangalore

Akshat Joshi., UG Student Department of Mechanical Engineering, Sri sairam college of Engineering Anekal Bangalore

Aryan Kumar Jaiswal., UG Student Department of Mechanical Engineering, Sri sairam college of Engineering Anekal Bangalore

Nithin S A., UG Student Department of Mechanical Engineering, Sri sairam college of Engineering Anekal Bangalore

Shanthveerayya S H., UG Student Department of Mechanical Engineering, Sri sairam college of Engineering Anekal Bangalore

Abstract:--

New advances in screw design and mixing sections have allowed processors to take advantage of new resins, higher production rates and improved product quality. The three main zones – compression, mixing, metering, of extrusion process must be considered while designing the extruder. The L/D ratio plays an important role in designing the screw. Material selection, power required, melt viscosity, and other important parameters are determined/calculated using suitable formulae. This project aims at designing a low- cost, portable single screw extruder. The main objective is to compact the size of the machine without harming its ability to extrude.

Keywords: –

Plastic Extrusion, Single Screw Extruder, Plastics Processing.

Protection and Control of Line to Ground Faults at Distribution Feeders in Smart Grid

A. David Arulanandan., Research Scholar, Faculty of EE, Anna University, Chennai.
K. Kathiravan., Professor, Dept. of CSE, Easwari Engineering College, Anna University, Chennai

Abstract:--

This paper presents the protection, control, and communication (PCC) operations at distribution feeders (DF) in the smart grid. The protection devices selectivity, coordination, adaptive settings, and anti-islanding in the integrated distribution systems are the challenging technical issues when overcurrent protection against the line to ground (LG) faults due to the impact of grid-connected distribution generation (DG). The significance of this research describes the comprehensive review of PCC functions at the process, bay and station levels of DF. Furthermore, the general algorithm provides the deployment of PCC system to achieve its reliability. Hence, this algorithm resolves to develop these functions using different techniques. Single line to ground fault protection characteristics illustrated using Matlab/Simulink.

Keywords: –

Line to ground faults, protection, control, communication, distribution feeders.