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DRK Institute of Science and Technology

ICASETM – 17

International Conference on Applied Sciences, Engineering, Technology and Management

Hyderabad, Telangana
2nd – 3rd November 2017

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Organized at:
DRK Institute of Science and Technology
Bowrampet, Hyderabad, Telangana.

Welcome Message

On behalf of ***Institute For Engineering Research and Publications (IFERP)*** and in association with ***DRK Institute of Science and Technology,*** Hyderabad, Telangana. I am delighted to welcome all the delegates and participants around the globe to ***DRK Institute of Science and Technology, Hyderabad, Telangana*** for the ***"International Conference on Applied Sciences, Engineering, Technology and Management (ICASETM-17)"*** Which will take place from ***2nd – 3rd November '17***

Transforming the importance of Engineering, the theme of this conference is ***"International Conference on Applied Sciences, Engineering, Technology and Management (ICASETM-17)"***

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 & DRKIST)** 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 ***Hyderabad, Telangana.***

Mr. R. B Satapathy
Director
IFERP

Preface

The ***International conference on Applied sciences, Engineering, Technology and Management (ICASETM-2017)*** is being organized by ***DRK Institute of Science and Technology, Hyderabad, Telanagana, India*** in association with ***Institute For Engineering Research And Publication (IFERP).***

DRK Institute of Science and Technology is a premier Institute established in the year 2004 under the patronage of DRK educational society.

It is gratifying to know that ***ICASETM-2017*** was a notable event which brings academicians, researchers, engineers, industry experts and students together.

Covering broad range of topics in various domains the conference will be a perfect platform to share experience and foster collaborations across industry and academia to evaluate current and emerging trends across the globe.

The International Conference attracted over 140 submissions. Through rigorous peer reviews 53 high quality papers were recommended by the Committee. The Conference applied focus on the tools and techniques for the developments on current technology.

We are indebted to the efforts of all the reviewers who undoubtedly have raised the quality of the proceedings. We are earnestly thankful to all the authors who have contributed their research works to the conference. We thank our Management for their wholehearted support and encouragement. We thank our Principal for his continuous guidance. We thank all the members of our local organizing Committee, National and International Advisory Committees.

ICASETM - 2017

Prof. A. Venugopal Reddy,
Vice Chancellor
JNTUH

MESSAGE

It is encouraging to see DRK Institute of science and technology, Hyderabad ,Telangana is organizing the first international conference on" Applied Sciences, Engineering, Technology and Management (ICASETM-2017)", during 2nd -3rd Nov, 2017.

I strongly believe that the key to power, respect and prosperity is Knowledge. "Learning gives creativity, creativity leads to thinking, thinking provides Knowledge and Knowledge makes you great".

I trust that the conference will not only provide with a useful forum to the participants to share their expertise for extending collaboration in various fields, but will also be professionally beneficial to them. It will also help to introduce and familiarize the participants with its current work for advanced studies and research.

I wish the ICASETM-2017 team all the success.

D.B. Chandra Sekhar Rao.,
Chairman, DRKIST

MESSAGE

I am indeed very happy that the International conference on" Applied Sciences, Engineering, Technology and Management (ICASETM-2017)" is being jointly organized by DRKIST and IFERP. A prestigious event for the college it will provide an exposure to the new technologies and trends, which will be valuable learning experience for research scholars and students. It is a high time to motivate and create research activities among the engineers to work for the development of the country. I am sure the conference will turn a new page by being in a new era of technologies and trends. I take this opportunity to extend warm welcome to the resource persons and delegates registered for the conference.

I wish the organizing committee all the success.

DR. D. N. Rao, Principal
DRKIST

MESSAGE

I am extremely delighted to learn that DRK Institute of Science and Technology in association with Institute for Engineering Research and Publication (IFERP) shall be conducting "International Conference on Applied Sciences, Engineering, Technology and Management (ICASETM-2017) in our campus during 2nd -3rd Nov,2017. The conference will be really helpful to the upcoming research community to grow in their respective research domains. Conferences of this type will go a long way in enhancing the knowledge and broadening the vision of all concerned. My best wishes to the organizers and participants to make the conference a grand success.

DR. K. Dhanasree, Convener,
DRKIST

MESSAGE

On behalf of DRK Institute of Science and Technology, I welcome you all to the "International Conference on Applied sciences, Engineering, Technology and Management".

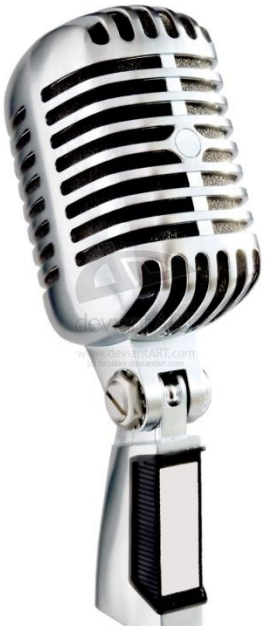
ICASETM-2017 provides a worldwide forum with innovative and original research on various technologies. The mission of the conference is not only to provide a forum for young researchers to meet experienced researchers, but also to provide a quality publishing mechanism for all young researchers. The International conference attracted over 100 submissions. Through rigorous peer reviews 80 high quality papers were recommended by the committee.

I feel proud of where we are today and be thankful to all the associated members of the conference. It is important to mention and appreciate the excellent co-operation of the principal and committee members. My special thanks go to all committee chairs, their experience and leadership are important for the organization of the conference. I would like to thank all the session chairs and the reviewers for their time, dedication and hard work in judging the papers. Their combined work and wisdom helped in selecting the best papers that are going to be presented in this conference. I thank the management for supporting and hosting ICASETM-2107. The tireless efforts of all the organizing committee members make the International conference happen again.

I wish all the participants a successful and fruitful conference and solicit their continuous participation in all the future International conferences hosted by DRKIST.

ICASETM – 17

International Conference on Applied Sciences, Engineering, Technology and Management (ICASETM-17)



Keynote Speakers

Dr. V. N. Mani, Scientist-E
Centre for Materials for Electronics Technology,
Department of Electronics & Information Technology, Govt. of India,
Cherlapalli, Hyderabad 500 051, India

MESSAGE

I am extremely happy that the ***DRK Institute of Science and Technology***, ***Bowrampet, Hyderabad*** is organizing the "***International Conference on Applied Sciences, Engineering, Technology and Management (ICASETM - 2017)***". The conference is providing a broad scope for all the researchers involving all the disciplines to promote interdisciplinary research. This Conference will provide a wonderful forum to refresh the knowledge base, exchange thoughts and explore the advanced research ideas. This occasion provides an opportunity for all the researchers, academicians & students to interact with renowned invited speakers in updating their knowledge in all spectrums. I thank all contributors who enriched the proceedings and congratulate the entire team for conducting such a wonderful event. I welcome all the delegates and participants to the Hi-Tech town Hyderabad and wish them a comfortable and memorable stay during the period of the Conference.

BIOGRAPHY

Dr. V. N. Mani completed his (B.Sc-Physics) in 1983 and (M.Sc, Physics-Electronics, Presidency College, University of Madras) in 1985 and Ph.D. (III-V epitaxial Semiconductors Modeling areas-Anna University-Technical, Chennai) in 1990. He has joined Department of Electronics, Govt. of India, New Delhi in 1991 as Scientist-B. Presently holding the post of Scientist-E at Centre for Materials for Electronics Technology (C-MET), Department of Information Technology, Govt. of India, Hyderabad.

He has more than 26 years of experience and expertise in the areas of pure electronic and energy materials purification, processing, class clean packaging and devices development. He has carried out his postdoctoral research works at LCM & MCI, France, NRC-Taiwan in the select areas of GaAs and ZnO epitaxial semiconductor devices and solar systems development areas. He has take-up the major and critical R&D projects with a view to develop indigenous process and product technologies relevant to DRDO/DST/DAE.

(Dr. V. N. MANI)

Dr. Vijay Tharad
Director Operations at Corporate Professional Academy for Technical Training & Career Development.

MESSAGE

I am extremely happy to note that IFERP- Institute for Engineering Research and Publications and ***DRK Institute of Science and Technology, Bowrampet, Hyderabad*** is organizing the ***International Conference on Applied Sciences, Engineering, Technology and Management (ICASETM -2017)*** during 2nd - 3rd November 2017. I am also happy to know that the institute is bringing out a Souvenir on this occasion.

I hope this conference will provide an opportunity to all the participants to interact with each other & discuss on the issues related to the current research and latest advancement and Recent Challenges in Engineering and Technology. The deliberation at this conference will, i am sure, enable Academicians, Practitioners, Consultants, Research Scholars, Industry leaders and other Experts to exchange ideas and suggest measures for meeting the evolving challenges and the exchanges will hopefully benefit the community.

I wish the conference a great success

BIOGRAPHY

Vijay Tharad is currently Director Operations at Corporate Professional Academy for Technical Training and Career Development and caters to the Technical Training needs of employees of corporate world and provides consultancy services to Universities and Engineering Colleges for Career development of engineering students for smooth switch over from Academic world to corporate culture and work ethics. He has recently retired from Multinational Company Caterpillar India Private Limited after serving them for over 25 years where he was Chief Technical Training consultant for Cat products mainly Diesel Engine, Generator sets and Heavy Earth Moving Machines.

Vijay Tharad has an extensive background in diesel engine, modern electronic controlled diesel engine and latest aftertreatment technology since 1989. He was involved with training thousands of Cat employees and other corporate

employees on emission control systems to help diesel and alternative combustion engines meet future regulated limits. He has authored training material on Diesel Emissions and Their Control, a comprehensive handout, and continues to present seminars in diesel engine technology, selective catalytic reduction for diesel engines, and exhaust gas recirculation.

Vijay Tharad did his B.Sc. with Maths, Physics, and Chemistry in the year 1965 securing seventh rank, and by virtue of which he was awarded National Merit Scholarship for his Engineering study. He did B.E. in Mechanical Engineering in the year 1969 with First Rank from Osmania University Hyderabad.

From 1969 onwards for past 45 years He served Shriram Refrigeration Industries at Hyderabad, Electronics and Radar Development Establishment at Bangalore, Tata Engineeing and Locomotive Ltd at Jamshedpur, Pune, and Mumbai, Hindustan Power Plus Limited at Hosur, Caterpillar India Private Limited at Chennia & Thiruvallur in various capacities and had received certificate of Excellence for outstanding services, achievements, contribution for parts marketing, outstanding performance in inventory control, remarkable role in the field of education and training of employees of Caterpillar India Private Limited at their plant at Hosur, Thiruvallur, and Engineering Design centre at Chennai.

To consolidate, He is an engineer with more than 45 years of experience in various disciplines and have worked in most admired engineering companies of India Telco and multinational company Caterpillar. During these 45 years he had traveled vastly every corner of India and had business tour to USA, Japan, England, Europe, Singapore, Malaysia and Middle East.

Dr. VIJAY THARAD

Shri. Sreenivas Kunapuli
Consulting – Practice and Presales – Digital Strategy– Leadership
Vice President, Digital (Sutherland Global Services)
Hyderabad, Telangana

MESSAGE

I am excited to see such an enthusiasm towards an ***international conference on Applied Sciences, Engineering, Technology and Management***. Current day engineers need to know what is going on in the industry and how to mould their studies towards a better future.

BIOGRAPHY

I believe that every company will eventually become a Technology Company. Data Is the New Oil of the Digital Economy. I believe that in this Digital world, monetization of this data is important. Customer engagement, Back Office Automation and Transformation must be technology savvy for a business to compete. My expertise lies in the intersection of Business, Technology and Sales. I help organizations exploit Digital Technologies to create new source of value and increase operational agility. I align businesses in building strategies around Content, Commerce, Context, Process Automation and Business/Application Integration

I have over 20 years of consulting, solution evangelization and business development experience. I have architected large scale deals across diverse industries like Retail, Insurance, Banking, Hi-Tech, Healthcare and Energy. This enables me to cross pollinate ideas, solutions and best practices. My experience spans the entire value chain of opportunity identification, presales, solution and deal shaping, consultative selling, incubation of CoEs, Delivery, Competency Development, providing the right day-zero experience and help in execution planning for multimillion dollar digital transformation initiatives.

I have filed 7 patents in the areas of Digital, Knowledge Management and Internet of Things and have written several whitepapers on similar subjects. I provided thought leadership to clients and created multiple Points of Views to clients across Digital Supply Chain Collaboration, Asset Collaboration, HRIS Collaboration, Digital Transformation of Retail Value Chains, Marketplace economy etc. that has added value to my clients' top line

Shri. SREENIVAS KUNAPULI

ICASETM-17

International Conference on Applied Sciences, Engineering, Technology and Management

Hyderabad, Telangana, 2nd – 3rd November 2017

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CONTENTS

CONTENTS

CONTENTS

CONTENTS

CONTENTS

CONTENTS

ICASETM – 17

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ABSTRACTS

ICASETM - 17

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International Conference on Applied Sciences, Engineering, Technology and Management

Hyderabad, Telangana, 2nd–3rd November 2017

Automated Generation of a Natural Challenge File for File Carving Algorithms

K. Srinivas., Research Scholar (External) in CSE, JNTUH University, Hyderabad, Telangana, India

Dr. T. Venugopal., Professor, Department of CSE, JNTUH College of Engineering, Sultanpur, Sangareddy Dist. Telangana, India

Abstract:--

File Carving is a technique of reassembling unordered mixed file fragments, without using files' metadata such as FAT, for reconstructing the actual files present on the disk. In the areas of data recovery and digital forensics this situation arises. A challenge file consists of number of files, in the form of fragments, mixed in random order. In this paper authors have presented a software system that generates a challenge file by implementing, at user level, a file system which broadly follows FAT file system. This software system uses a large size file to store file fragments just like a kernel level file system uses disk to store files. The kernel level file system fragments the file, as per the availability of free clusters, at the time of creation of the file. By viewing the challenge file as a virtual disk, it consists of the number of virtual clusters. The software system presented in this paper, a user level file system, fragments the file, as per the availability of free clusters, on the virtual disk i.e., the challenge file. This challenge file consists of mixed file fragments of number of user files. The content of the challenge file is a result of software module which broadly follows FAT file system. The challenge file thus generated is, therefore a natural challenge file. This challenge file provides the writers of file carving algorithms a platform to test their algorithms. The designers of file carvers can use the challenge file conveniently as a virtual disk, in place of the actual disk, thus eliminating the need of physical hard disk for testing their algorithms. There are number of other benefits of this approach as outlined in this paper.

Keywords:--

File carving; file system; challenge file; digital forensics; data recovery

Secure Encryption scheme with key exchange for Two server Architecture

D.Siva Santosh Kumar., M.Tech, CNIS (IT), VNRVJIET
Mrs.Kalyani., Assistant Professor, IT, VNRVJIET

Abstract:--

In Distributed environment authentication and key-exchange mechanisms plays a major role. Generally in authentication a client and server agree upon a cryptographic key which is mutually exchanged. Earlier passwords were stored in a single server where if an intruder gains access of that server by some malicious attacks then all the passwords stored in the database are to be compromised and therefore the e-commerce application security is endangered. In-order to improve the efficiency and performance of the authentication mechanisms we involve multiple servers to store the passwords and participate in key-exchange and authentication process so as to ensure that even a single server is compromised the whole system's security is not in threat and also generating a nonce values randomly for every session corresponds to a two level security mechanism where the scope of an attacker to pretend as the legitimate user and login into the system is completely restricted.

In this model the passwords are stored in their equivalent hash values and they are spitted into multiple servers. Making it even more difficult for the attacker to determine the password even by reverse engineering he cannot intercept the actual password form segments of hash value. Hence, we can present this model as safe and secure password based authentication scheme using key exchange mechanism.

Keywords:--

Authentication, Cryptography, Key exchange.

Fuzzy Based Feature Selection for Intrusion Detection System

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Ch.Anuradha., Department of CSE, PVP Siddhartha Engineering college, Vijayawada-52007, AP,India.
P.S.R. Chandra Murty., Department of CSE,Acharya Nagarjuna University college of Engineering, Guntur-522510, AP,India.

Abstract:--

An Intrusion Detection System (IDS) gathers and evaluates information from different locations, and finds potential security risks that include exterior as well as inside of the organization. It contains an enormous volume of data with irrelevant and redundant features which result in longer processing time and poor detection rate. So, feature selection should be empowered as an important characteristic for better performance on massive datasets. Feature selection refines the high dimensional data sets by removing over fitting and curse of dimensionality problems mainly in the domain of machine learning. The perceptive of feature selection lies in increasing the accurateness. In this paper, Fuzzy_Chi_Euc algorithm was given for selecting best features in KDD Cup 99 data set. In this algorithm integration of two filtering methods is done. The fuzzy inference rules are applied for selecting the features. The classification is carried out for finding intrusion and normal data using Support Vector Machines (SVMs). From the experiments conducted it is shown, most significant and relevant features are thus helpful for classification, which, in turn, reduce the time of training with better classification accuracy.

Keywords:--

Intrusion Detection System, Machine learning, over fitting, Chi square distance, Euclidean distance, Fuzzy inference rules, Support Vector Machine.

A study user behavior using phishing education and training

Ms. Vidya Mhaske-Dhamdhere., PhD Scholar, Bharati Vidyapeeth Deemed University College of Engg. Pune, Maharashtra.
Dr. Prasanna Joeg., Professor, Bharati Vidyapeeth Deemed University College of Engg. Pune, Maharashtra .India
Dr. Sandeep Vanjale., Professor, Bharati Vidyapeeth Deemed University College of Engg. Pune, Maharashtra .India

Abstract:--

In this paper, we present results of surveys of users on their ability to recognize phishing emails as opposed to legitimate emails. User awareness is one of the most important approaches to phishing detection.

We first conducted a survey of user confidence in their ability to detect phishing. We then designed a survey questionnaire that contained some legitimate emails and some phishing emails. We conducted a second survey to test the ability of a sample set of users to detect phishing. The results were mixed. After the second survey, we conducted a training session on the same group of users to train them to detect phishing. After the training we conducted a third survey with a somewhat different questionnaire to test their ability to detect phishing. Our results suggest that training considerably improves the ability to detect phishing. However, a significant minority are still not able to detect phishing.

Keywords:--

User behavior, Phishing, phishing attacks, phishing identification

Enhancing the Privacy Preserving Data Mining Techniques by using Anatomisation with Slicing Approach for Multiple Susceptible Attributes without Loss of Accuracy

V.K.Saxena. , Vikram University, Ujjain, M.P., India**.**
Shashank Pushkar., Birla Institute of Technology, Mesra, Ranchi, Jharkhand, India

Abstract:--

A gigantic quantity of individual health information is accessible in modern decades and dispositioning of any part of this information establishes a huge risk in the field of health care. Enduring anonymization methods are only appropriate for single susceptible and low down dimensional data to remain with privacy particularly like generalization and bucketization. We propose an anonymization technique that is a amalgamation of the betterment of anatomization, and improved slicing approach observing to the principle of k-anonymity and l-diversity for the reason of dealing with high dimensional data along with multiple susceptible data. The anatomization approach disrupts the correlation detected between the quasi identifier attributes and susceptible attributes (SA) and turnouts' two different tables with non-overlapping attributes. Hence, experimental outcomes specify that the suggested method can preserve privacy of data with various sensitive attributes. The anatomization approach reduces the loss of information and slicing algorithm advices in the correlation preservation and usefulness which gives output in sinking the data dimensionality and information deficiency.

Index Terms:--

Privacy preservation, Anatomization, Slicing, k-Anonymity, l-Diversity

A Metamorphosis Approach to Software Engineering

M.Rithvik., Assistant Professor, SRK INSTITUTE OF TECHNOLOGY
Merugu Naresh Babu., Assistant Professor, SRK INSTITUTE OF TECHNOLOGY
Narala Sudhakar Reddy., Assistant Professor, SRK INSTITUTE OF TECHNOLOGY
Puli Nageswara Rao., Assistant Professor, SRK INSTITUTE OF TECHNOLOGY
Ch.Praneeth ., Assistant Professor, SRK INSTITUTE OF TECHNOLOGY

Abstract:--

The most important industry that is going to play a key role now a days is the software industry because it's the only industry which have high return values .For any industry to have a good survival applications plays a key role because an industry growth can be estimated by its outcomes those are nothing but products and services. Software Engineering is the subject that deals with various methodologies in order to ensemble software. This Paper represents a metamorphosis approach to software because when we perform Engineering we also need to know about reengineering sometimes many interventions may come up with reengineering process .Here we represent such type of reengineering approach with the help of a demo application.

Index Terms:--

Metamorphosis, Enginnering, reengineering, emerging ,trends

IOT Using Cloud Technology

Dr.A.V.PrathapKumar ., Professor in ECE Dept, TKR Engineering College,saroor Nagar, Hyderabad
Prof.K.Vikram., Professor in ECE Dept, TKR Engineering College, saroor Nagar, Hyderabad

Abstract:--
The Internet of Things continues to develop, further potential is estimated by a combination with related technology approaches and concepts such as Cloud computing, Future Internet, Big Data, robotics and Semantic Technologies The idea is of course not new as such but becomes now evident as those related concepts have started to reveal synergies by combining them

Keywords ::--
Smartcites, Iot ,Cloud Technologies

An Improved Brain Tumor Segmentation Method from MRI Brain Images

A.Harshavardhan., Research Scholar, Department of Computer Engineering, JNTUH & Asst. Prof. Dept of CSE, S R Engineering College, Wgl, India
Dr. Suresh Babu., Associate Professor, Department of Computer, KDC, Warangal, India
Dr. T. Venugopal., Associate Professor, Department of Computer Engineering, JNTU, Sulthanpur, Medak, India

Abstract:--
The objective of the paper is to segment the tumor region from the Magnetic Resonance Imaging (MRI) brain images. The method incorporates the following steps during the tumor localization process namely, smoothing, skull stripping, filtering, image enhancement, followed by defining the region of interest and segmenting the identified tumor region from the input MRI brain image. Experimental results concluded that the proposed method has better performance regarding segmentation accuracy and execution time karma when tested on 15 live brain images with significant tumor regions.

Key words:--
Brain tumor, tumor segmentation, smoothing, filtering, Region of Interest, Thresholding.

IPATH

Dr. Ratna Raju Mukiri, Associate Professor, CSE, Dept, St. Ann's College of Engineering & Technology
S. Amarnath Babu., Associate Professor, CSE Dept, St. Ann's College of Engineering & Technology
Dr. B.V.V.S. Prasad, Associate Professor, CSE Dept, DRK College of Engineering & Technology
P. Naveena., B.Tech Scholar, CSE Dept, DRK College of Engineering & Technology

Abstract:--

Recent wireless sensing element networks (WSNs) are getting progressively advanced with the growing network scale and therefore the dynamic nature of wireless communications. Several activity and diagnostic approaches depend upon per-packet routing ways for correct and fine-grained analysis of the advanced network behaviors. In this paper, It has a tendency to propose IPath, a unique path illation approach to reconstructing the per-packet routing ways in dynamic and large-scale networks. The essential plan of IPath is to take advantage of high path similarity to iteratively infer long ways from short ones. IPath starts with associate degree initial renowned set of ways and performs path illation iteratively. IPath includes a unique style of a light-weight hash perform for verification of the inferred ways. So as to additionally improve the illation capability further, IPath includes a quick bootstrapping algorithmic program to reconstruct the initial set of ways. It has a tendency to additionally implement IPath and appraise its performance exploitation traces from large-scale WSN deployments. Results show that IPath achieves abundant higher reconstruction ratios below completely different network settings compared to alternative progressive approaches

Index Terms:--

Measurement, path reconstruction, wireless sensor networks.

PRIVACY PROTECTION ONLINE SOCIAL MEDIA

Dr.A.Ramamurthy Naidu., Professor in CSE, TKR College of Engineering, Saroor Nagar , Hyderabad
Mrs. P.Jyhothi., Asst.Professor in CSE, TKR College of Engineering, Saroor Nagar, Hyderabad
Mrs. K.Swathi., Asst.Professor in CSE Dept, TKR College of Engineering, Saroor Nagar, Hyderabad

Abstract:--

Items shared through Social Media may affect more than one user's privacy e.g., photos that depict multiple users, comments that mention multiple users, events in which multiple users are invited, etc. The lack of multi-party privacy management support in current mainstream Social Media infrastructures makes users unable to appropriately control to whom these items are actually shared or not. Computational mechanisms that are able to merge the privacy preferences of multiple users into a single policy for an item can help solve this problem.

However, merging multiple users' privacy preferences is not an easy task, because privacy preferences may conflict, so methods to resolve conflicts are needed. Moreover, these methods need to consider how users' would actually reach an agreement about a solution to the conflict in order to propose solutions that can be acceptable by all of the users affected by the item to be shared. Current approaches are either too demanding or only consider fixed ways of aggregating privacy preferences. In this paper, we propose the first computational mechanism to resolve conflicts for multi-party privacy management in Social Media that is able to adapt to different situations by modeling the concessions that users make to reach a solution to the conflicts. We also present results of a user study in which our proposed mechanism outperformed other existing approaches in terms of how many times each approach matched users' behaviour.

Distinguish DDoS Attacks and Suggesting Some Counter Measures For Distributed P2P Networks

Gera Jaideep, Research Scholar, Dept.of CSE, Acharya NagarjunaUniversity, Guntur, India
R.V.Kishore Kumar ., Research Scholar, Dept.of CSE, Acharya Nagarjuna University, Guntur, India
Dr.B.V.V.S.Prasad., Associate Professor, Dept.of CSE, DRK College of Engineering and Technology , Hyderabad, India

Abstract:--

Peer-to-Peer networks became more popular in now days because of its useful delivery services. It utilizes distributed resources to perform some intended activities. Because of its distributed in nature they are widely used in file sharing. For every network there is a common problem that is an attack, it may of many types in those most complicated and highly threatening and hard to detect attack in distributed Peer-to-Peer network is Distributed Denial of Service (DDoS) attack. An attack that interrupts the services to all the users is DDoS attack. Many techniques are in existence to solve the DDoS attack but still hard to respond in short time to flooding based DDoS attacks. The reason is this attack is made by intruders or opponents who use large number of attacking machines by a method of source address spoofing. In this paper we proposed architecture, this designed structure defend and detect DDoS attacks. Here we can resolve this with the help of two important parameters. Time-to-Live (TTL) value and the distance between victims source to victim's destination. This architecture can take care of agent-based trace back, traffic control and detection of DDoS attack. The proposed methodology can detect and prevent DDoS attacks and ensure Quality of service for real traffic.

Index Terms: –

DDos attack, Distributed Peer-to-Peer Networks, security, agent-based approach.

An Agglomerative Clustering Method for Solving Vehicle Routing Problem

P Praveen , Assistant Professor, Department of CSE in S R Engineering College & Research Scholar In Department of Computer Science Kakatiya University, Warangal,Telangana, India
B. Rama., Assistant Professor, Department of Computer Science Kakatiya University, Warangal, Telanaga,India

Abstract:--
A magnified arrangement is intended for the vehicles to diminish the aggregate cost of dissemination by which it can supply the products to the clients with its referred to limit can be named as a vehicle directing issue. In factor neighbourhood look technique, chiefly a productive vehicle steering can be accomplished by figuring the separation network esteem in view of the client's area or the way where the client's lives. The fundamental target of the paper is to lessen the aggregate separation made a trip to convey the products to the clients. The proposed calculation is a chain of importance based upgraded agglomerative bunching calculation procedure which is utilized as a part of the information mining situation successfully. The proposed calculation diminishes the aggregate separation doing out to every course and the vital thing need to consider is that, the improved grouping calculation can decrease the aggregate separation when contrasted with the beforehand proposed variable neighbourhood seek strategy.

Keywords:--
Centroid, Cluster, Agglomerative Clustering, Savings Matrix, Vehicle Routing Problem

Color Image compression by wavelet transform

Dr.K.Vikram, Professor in Computer Engineering, G.H. Raisoni College of Engineering & Management , Wagoli , Pune.
Dr. Pramod Kumar Gouda., Professor in Electronic & Telecommunication Engg Dept, G.H. Raisoni College of Engineering & Management , Wagoli , Pune.

Abstract:--
Wavelets give the assurance great powerfull and flexible sovling the fundamental issues in Science and Engineering such as like signal compression de-noising image enhancement image detection fingerprint compression wavelets in mathematics are implemented in engineering model of image compression. We are focus on how wavelets techniques are implemented in the field of imgae compression and how aspects of wavelet effect the compression process and result.

Keywords:--
wavelet, Image color

Design and Development of Compact Line Impedance Stabilization Network for Measurement of Conducted Emission

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Dr. D. Nagendra Rao., Professor, Department of ECE, D.R.K. Engineering College, Bowrampet, Hyderabad, Telangana, India
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Abstract:--

In modern life bit commercial Electronic, industrial are defense electronics problem of electromagnetic interference (EMI) is ever growing problem. Accurate and precision measurement of EMI gives vital information about the characteristics of noise (or) EMI which leads to the achievement of electromagnetic comparability. Measurement of conducted emission is an important step towards electromagnetic comparability. Conducted emission can be measured using current probes, voltage probes depending on the applicable measurement standard. In MIL-STD461E a voltage probe method is recommended. A LISN is nothing but a voltage probe associated with impedance stabilization circuit. In the proposed paper a LISN as per MIL-STD461E studied it will be simulated using P-spice software for optimization of its performance. Based on the simulation results a compact LISN will be designed, fabricated and tested for its performance various conducted emission measurements will be carried out using fabricated LISN.

A Remote User Authentication Operation using CaRP schemes

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Nilesh P Sable ,JSPM,Wagholi Pune

Abstract:--

Image based password schemes are constructed to authenticate users. Graphical passwords are composed with images and sketches with human memory for visual information. Improved password memorability and strength against guessing attacks are the key benefits of graphical password schemes. Graphical passwords are classified into three main categories. They are recall, recognition and cued-recall methods. Recall based graphical password systems are draw metric systems. Recognition based systems, also known as cogno metric systems or search metric systems. Cued recall systems typically require that users remember and target specific locations within an image.

Graphical passwords and Captcha schemes are integrated to perform the user authentication with improved security mechanism. Captcha as graphical passwords (CaRP) is a graphical password scheme used for user authentication. Online guessing attacks, relay attacks and shoulder surfing attacks are handled in CaRP. CaRP is click-based graphical passwords where a sequence of clicks on an image is used to derive a password. Dynamic captcha challenge image is used for each login attempt in CaRP. Text Captcha and image-recognition Captcha are used in CaRP scheme. Text CaRP scheme constructs the password by clicking the right character sequence on CaRP images. CaRP schemes can be classified into two categories recognition based CaRP and recognition-recall based CaRP. Recognition-based CaRP seems to have access to an infinite number of different visual objects. Recognition-recall based CaRP requires recognizing an image and using the recognized objects as cues to enter a password. Recognition-recall combines the tasks of both recognition and cued-recall. Password information is transferred and verified using hash codes. Secure channels between clients and the authentication server through Transport Layer Security (TLS).

The system is improved with distribution analysis and transmission security features. Pattern based attacks are handled with Color and Spatial patterns. Pixel colors in click points are considered in the color pattern analysis model. Pixel location patterns are considered in the spatial pattern analysis model.

Method & Implementation of Android Application Base STK Attacks

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Abstract:--

Smart-phones are becoming so popular these days because of their extra features and their extraordinary capabilities compared to regular phones. They are very similar to PCs and laptops; therefore they are vulnerable to security problems and even worse with respect to memory and space limitations. Since smart phones are connected to internet so chances of security attacks are more to them along with GSM network Attacks. Lots of attractive games and applications are developed which intends to install suspicious software which can control our mobile phones by STK attacks. These applications can stole the secure information from our phone by STK attacks - send automatic SMS or make automatic calls .Smart-phones Vs simple mobile phones uses different technologies, so they are more exposed to different attacks. In addition, they are interoperating devices which work between the Internet and telecom networks, so they can bring Internet security threats to the telecom networks and cause serious damages. In this thesis STK-SMS attacks against Smartphone's are presented and some countermeasures against the attack are introduced. In addition some solutions internet-side defence and telecom-side defence and co-ordination mechanism in order to make these threats ineffective are discussed.

Digital Down Converter design to process bit frequency in Ground Penetrating Radar to measure soli profile

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Rama Rao., Electronics and Telecommunication Department, Vidayalankar College of Engineering, Mumbai, India
Shraddha Panbude., Electronics Department , Vidayalankar College of Engineering , Mumbai, India
Anil Kulkarni., IMSD Department, SAMEER, IIT Campus, Powai, Mumbai, India
Ajay Khandare., IMSD Department, SAMEER, IIT Campus, Powai, Mumbai, India

Abstract:--
The designing of Digital Down Converter in matlab simulink is disccuse in this paper.The proposed Digital Down Converter(DDC) of the SFCW Ground Penetrating Radar is designed for the frequency range of 200MHz to 1200MHz. DDC is used for the processes bit frequency and attenuate IF frequency. The DDC model that we are using in GPR is based on orthogonal mixing.

Keywords :—
DDC,Digital filter,GPR.

Security implementation for the Image Forgery Detection: A review

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Prof.Dr.M.Suman., Professor, KL UNVESITY, Andhra Pradesh, India.

Abstract:--

As we are living in the today's world where all type of advancements are becoming possible and at the same time the use of images have been increasing day by day in our lives by means of uploading and transferring. The manipulation of images also increasing simultaneously. The victims of Image forgery increasing on daily basis. In this paper, we are performing a review of this Image forgery types and methods to detect image forgery. There are two kinds of techniques for detecting image forgery: one is active method, and the other is passive method. The main types of Image forgeries are Image Splicing, Copy-Move forgery and image retouching. These techniques used mainly for making tempered photographs. As the Image forgery with sophisticated technology is growing it is very much necessary to develop tools for detection of original image and the region of forgery. We study on of the most powerful technique with a classifier based on Neural Networks. The proposed frame work involves key steps like image acquisition, future extraction and classification algorithm. This method also monitors parameters like accuracy, precision etc. The implementation of proposed method meets the future needs in image forensics and reduces the risk of digital images.

Index Terms : —

Image forgery, watermarking, neural network, classifier

Power Analysis of a Transmission Gate based Scan Flip Flop

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S. Chenthur Pandian. Professor, Department of EEE, SNS College of Technology, Coimbatore

Abstract:--

The design for testability is increased by constructing flip flops using transmission gates. The multiplexer serves as the switching circuit between the normal mode and the testing mode. The normal mode depicts the exact condition of the circuit when the primary inputs are given; the primary outputs are derived from the circuit. The testing mode is based on the switching activity of the circuit and its response is analyzed. The switching activity is based on the transitions produced by the test pattern given during the test mode. The proposed method provides a reduced power due to the usage of transmission gates. This shows a wide range of improvements through the optimization of the basic multiplexer logic along with the flip flops. The circuit was simulated and synthesized using Tanner EDA tool and the power analysis was done. There was a significant reduction in the power consumption.

Keywords: -

Testability, Power optimization, Short rail Power, Test patterns, SCAN chain, Built in Self-Test, multiplexers, flip flops.

Operations Research and its applications

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Abstract:--

In this paper Ipresent the importance and applications of operation research in day to day life. Operations Research is the application of analytical methods designed to help the decision makers choose between various courses of action available to accomplish specified objectives.

Keywords:--

Operation Research, decision making.

Performance Analyses of Z-source and Quasi Z-source inverter for photovoltaic applications

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Abstract:--

This paper presents the comparative analysis of Z-source and Quasi Z-source converter for renewable energy applications. Due to the dependency of renewable energy sources on external weather conditions the output voltage, current changes accordingly which effects the performance of traditional voltage source and current source inverters connected across it. To overcome the drawbacks of VSI and CSI, Z-source and Quasi Z-source inverter (QZSI) are used, which can perform multiple tasks like ac-to-dc, dc-to-ac, ac-to-ac, dc-to-dc conversion. They can be used for both buck and boost operations, by utilizing the shoot-through zero state. The QZSI is derived from the ZSI topology, with a slight change in the impedance network and it overcomes the drawbacks of ZSI. The QZSI draws a constant current from the source when compared to ZSI. A comparative analysis is performed between Z-source and Quasi Z-source inverter, simulation is performed in MATLAB/Simulink environment.

Keywords:--

Photovoltaic Applications; Z-Source Inverter; Quasi Z-Source Inverter, Modulation index

Investigating Biocompatibility of Laser Rapid Manufactured Porous structures of Titanium

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C P Paul., Laser Development and Industrial Applications Division, Raja Ramanna Centre for Advanced Technology, Indore (MP) 452 013. Homi Bhabha National Institute, BARC Training School Complex, Anushakti Nagar, Mumbai 400 078

Abstract:--

Titanium is one of the well-known materials in orthopedic and odontology due to chemical inertness, mechanical resistance, corrosion resistance and biocompatibility. In order to reduce the negative biologic response while maintaining adequate function of an implant in the body a suitable fabrication process is important. LRM is one of the advanced additive manufacturing processes that is capable of fabricating engineering components directly from a solid model. As a result, the fabricated structure is highly customized and expected to have biomechanical properties, which are comparable to those of autogenous tissues without any ill effects. This paper reports the cytocompatability studies of the laser manufactured porous Ti disc in cell culture of L929 cells in vitro using Direct contact method

Report on modification of I.C.Engines

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Abstract:--

Depleting Natural resources and Global warming has become a very huge challenge for mankind and one of the reasons for environmental degradation is emission of harmful gases due to incomplete combustion or over combustion of the fuel. The problem is becoming severe day by day because of increase in the vehicular density. Numerous solutions have been proposed till date to overcome this challenge. In this paper, the effects of engine on nature how it acts under the manipulation of strokes (internal combustion engine convertible from two-stroke to four strokes or vice-versa). With this mechanism air charged from high pressure receiver charges the engine through the electric valve independently of the fuel and enables, due to a great difference in pressures, fast performance of the process eliminating the intake and compression strokes which results in a two-stroke cycle operation. This downsizing leads to a 30% reduction in fuel consumption and correspondingly lowered emissions. Replacing the mechanical exhaust valve with the electric valve enables switching from two-stroke to four-stroke mode of operation and vice versa only by the electronic instruction which is either by manual operated command or by pre-installed electronic device with the valve timing commands similar to E.C.U. Location of the fuel nozzle directly in the compression chamber and its operation independently from the electric air valve enable use of the petrol, diesel, gas and oil. Thereby, Increases the overall performance of the engine.

Keywords:--

I.C. Engine, two-stroke, four-stroke, E.C.U, Valves, mechanism, convertible.

Absorption of heavy metals using surfactant modified zeolite

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Abstract:--

Musi river water is contaminated with various pollutants including toxic heavy metals which cause various health hazards. The green leafy vegetables cultivated using Musi water are found to contain the toxic heavy metals. When the heavy metals in Musi water used for cultivation, are absorbed by zeolites, the amount of heavy metals in leafy vegetables are very much reduced.

Keywords:--

Heavy metals, Musi, Clinoptilolite, Sorption, Sodium lauryl sulphate

Modeling and Analysis of Four Wheeler Friction Plate Using Catia and Ansys

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Abstract:--

A clutch is an important material for transmission of power. This paper shows the design of friction plate of a single plate clutch in automobile. This type of clutch is a dry friction clutch. The design of single plate clutch is drawn by using theoretical calculation results. A 3D drawing of clutch disc is drafted in Catia V5. The comparison result is done for using three materials to define the best material for friction plate i.e, Alloy steel, Copper, Cast iron. Here modal analysis can be done for three materials. I have taken to find out mode shapes and vibrations using Ansys Software.

Key Words: -

catia, friction plate, modal, mode shapes, torque

Studies on raw material optimization in cold forging by reverse extrusion technique

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Abstract:--

Process improvement is the proactive task of identifying, analysing and improving upon an existing process within an organization for optimization and to meet new quotas of standards and efficiency. The part field housing cup that houses starter solenoid in tractors goes through several processes related to machining and plating. The focus is on bringing down the waste in the cold extrusion process that the part undergoes by restricting free flow of material onto unwanted runoff which is later cut off in CNC machining. Cold extrusion is a push through compressive forming process with the starting material at room temperature. In forward extrusion, the material flows in the same direction as the punch displacement and the material movement cannot be restricted in this process easily, hence a considerable amount of material is wasted as free flow in unwanted areas. The aim is to bring down this waste material by restricting unwanted material flow in cold forging process. In the forging process the material movement was initially in the direction of die and caused runoff of extra material in the direction of punch, which had to be machined out later. Restricting the material movement by minor design changes resulted in bucking of the slug and increases pressure on die and die sleeve. The extra material movement was thus restricted by redesigning the process to reverse forging where the part design was incorporated in the punch thus reducing the need to restrict material movement and also eliminating unwanted runoff. A considerable reduction in cost and reduction in material wastage was brought about in the extrusion process. There has been a 19.35% reduction in the weight of raw material from 465 grams to 375 grams and the production cost of the part was reduced by 16.15% from initial cost of Rs. 29.89 to Rs. 25.02. Several constraints and gaps in the process were addressed such as buckling of the slug, sticking of part to the punch, material waste due to extra stock material and breaking of the sleeve due to pressure of reverse extrusion. Further reforming the designs for reverse extrusion process, the stresses on the tools were also reduced (counter punch and die) which upon failure would bear very high costs. Thus a methodology was devised to restrict material run off into unwanted areas without increasing the stress on die and punch.

Index terms:--

cold forging, extrusion, process optimization, waste reduction, reverse forging

Subclass of Harmonic Univalent Functions Associated With the Differential Operator

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B. Ravindar., Department of Mathematics, SR Engineering College, Warangal, TS, India

Abstract:--

In the present paper, we introduce a new subclass of harmonic univalent functions in the unit disk $U = \{z \in C : |z| < 1\}$ by using a differential operator. Also we obtain the coefficient bounds, convolution conditions, convex combinations and extreme points.

Index Term:--

Harmonic, univalent functions, Differential operator. 2010AMS classification: 30C 45, 31 A 05..

Service Quality in Commercial Banks: A Study of Public Sector Banks in Warangal District

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Abstract:--

This study attempts an investigation of the service quality process in public sector banks, and the customers' satisfaction thereof. In addition, it will evaluate the existing literature and establish the identity of the gaps in the literature, which will provide the framework on which this research is based. One of the study's major contributions to the advancement of knowledge is the investigation of the service quality process from a comparative perspective of different commercial banks customer perceptions and expectations. Most of the existing literature refers almost exclusively to the perception of service quality and determining customer satisfaction based on disconfirmation of expectation from customer perspective. The concept advanced within the present study focuses on the role of discriminating customers as satisfied and dissatisfied for the assessment of customer satisfaction on banking services as a refined process. This chapter emphasizes on discussion of the evolution of the literature on customer satisfaction, then the relationship between customer satisfaction and service quality, measuring service quality using modified SERVQUAL model, research gap, and conceptual framework.

Index Term:--

Service quality, SERVQUAL model, Quality dimensions, customers' satisfaction

Value at Risk (VaR) using statistical method

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Abstract:--

The Value at Risk (VaR) is a technique that is used in risk management to measure the amount of risk associated with an investor's or a company's portfolio within a specified time frame. This research concludes that the VaR is an extremely important, but fragile risk measure. It is also important for decision-making process for proper implementation and precision of estimates. It has proven to be an effective and intuitive risk measure with convenient properties when calculated and used appropriately to the market conditions and risk management needs. Here in this paper, we will try to understand how the techniques are working actually by making certain experiments on data. The data is taken from www.yahoofinance.com of Mc Donald's from 1st January 2000 to 31st December 2015 on monthly basis. The data is first tested for Normality with chi-square test and the different characteristics are validated by different graphs. The necessary parameters are estimated by taking the help of Minitab and Excel. The main aim is to calculate the VaR by specifying the confidence intervals, time period, the mean and the standard deviation and the behavior of the VaR using the Anderson-Darling statistic.

Key words: --

Value at Risk (VaR), Mc Donald's, Chi square test, Anderson-Darling statistic

Determination of unsaturated hydraulic conductivity in field conditions through inverse modelling using Hydrus-1D

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Abstract:--

In this study, the unsaturated hydraulic conductivity (K) of sandy loam soil was determined through inverse modelling. The transient unsaturated water flow was simulated by numerically solving the Richards equation with the finite element code of Hydrus-1D. The cumulative infiltration flux across a boundary at different time was used as the input variable to optimise the soil hydraulic parameters. The inverse method generally uses a weighted least-squares approach in which numerically simulated data are fitted to the measured data. van Genuchten hydraulic model was chosen for the determination of unsaturated hydraulic conductivity. The soil hydraulic parameters viz. residual water content (θr), saturated water content (θs), inverse of air entry value (α), water retention parameter (n), and saturated hydraulic conductivity (Ks) were optimised in successive iterations. The optimised parameter values were fitted in the van Genuchten model for obtaining the unsaturated hydraulic conductivity of the proposed soil.

Index Terms:--

Hydrus-1D, Inverse modelling, Unsaturated hydraulic conductivity

Future Internet: ICT, Internet of Things and Smart Education in India

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Abstract:--

The Internet is rapidly changing and evolving. In the past and present days the main form of communication on the Internet is human-human. But it will be imagined that future objects will have unique identification and these objects can be addressed so every object connected. The Internet will become Internet of Things in India. The form of communication will extend from human-human, human-machine and machine-machine. This will bring new computing that can occur using a device, in any location and any format and change human life. Now a day's education system in India following traditional system in some institutions accepting latest technologies making learning more innovative. Educational institutions in India are in a process of introducing innovating teaching and learning for creating smart learning facilities to develop student's talent. In this paper we discuss overview, architecture of IOT and how academic learning easy and motivating the students using ICT and IOT, introducing them to their subjects with smart learning and interactive. ICT provides a vide range of applications and devices for learning. Whereas IOT provides connecting devices making smart and self controllable.

Keywords:--

ICT; IOT; Information Technology; Education; Smart Learning

Speed control of permanent magnet synchronous motor by using non-linear SMC with fuzzy- logic control.

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Abstract:--

In functional Permanent magnet synchronous motor (PMSM) many uncertainties and disturbances exists which are both external or internal such as un predicted dynamics, changes of parameters and interruptions in loads.The linear PI Controller technique is very tedious for restricting these disturbances. In turn, Sliding mode control (SMC) which is non-linear control method is adopted for improving the control performances and disturbance benefiting technique. A system which dynamically adjusts to the disturbances is being employed by SMC method based on one unique sliding-mode reaching law(SMRL),this will control chattering reduction input while maintaining high tracking performance of controller. Then, for employing higher disturbances and obtaining servo precision, an extended sliding mode disturbance observer (ESMDO) is being proposed for assessing lumped uncertainties directly. A fuzzy sliding mode controller is used for reducing the disturbances during loading. Simulation and experimental results both show the validity of the proposed control approach.

Index Terms:--

PMSM-Permanent magnet synchronous motor, SMC-Sliding-mode control ,SMRL-Sliding mode reaching law, ESMDO-Extended sliding mode disturbance observer.

Emission characteristics of a dual fueled diesel engine powered with Jatropha oil and Producer gas

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Abstract:--

The present paper gives an experimental study of twin cylinder diesel engine operated in dual fuel using jatropha oil methyl ester as the pilot fuel and producer gas as primary fuel. Producer gas is produced by the gasification of Babul wood and the jatropha oil is produced by the transesterification process. Global warming and change in the balance of ecosystem is due to the emission of different harmful gases in to the atmosphere. This has led scientists to find an alternative to the present problem and one among them is alternative fuel (Biodiesel). A remarkable growth is observed in the automobile as well as industry sectors and this resulted in the continuous exploitation of fossil fuels. The utilization of biodiesel in the engine reduces the excessive use of petroleum fuels and also reduces the excessive emission of soot particles. Biodiesel is degradable and the production process is simple which makes it easy for everyone to understand. The experimental study shows the variation of emission characteristics of HC, CO, CO2and pilot fuel savings with respect to varying load when the engine is operated in dual fuel mode.

Index terms:--

Engine, jatropha oil, producer gas, gasification, transesterification, emission

Advanced Real-Time Digital Video Stabilization Based On Adaptive Threshold Pattern Stabilization Algorithm (ATPS)

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Abstract:--
Digital video stabilization (DVS) allows acquiring video sequences without disturbing jerkiness, removing unwanted camera movements. A significant DVS should eliminate the adverse camera movements while maintains the intentional camera movements. In this work propose a novel DVS algorithm that compensates the camera jitters applying an adaptive threshold pattern stabilization (ATPS) on the global motion of video frames. The ATPS is a simple infinite impulse response filter which is tuned to a stabilization system adaptively to the camera motion characteristics. Firstly in this work use spatial correlation component to predict motion vector (MV) of the current macroblock in the algorithm. Secondly, we consider eliminating the influence of neighborhood macro-blocks having low relevance to the present macroblock in the prediction process. Finally to utilize the weighted average MV of two macro-blocks with the smaller matching error in the neighborhood macro-blocks to calculate the predictive MV of current macro-block, instead of using the fixed single macro-block forecast pattern in ATPS. Experimental results show that our algorithm provides the better performance regarding the computational complexity and the prediction precision in comparison with ATPS and other block matching algorithms. Over 93.12% efficiency achieved by using ATPS technique.

Keywords:--
Fast Block Matching, Adaptive threshold pattern stabilization, Super-Resolution Reconstruction, Spatial Correlation, Prediction Motion Vector

A Novel Approach on Deblurring and Denoising for Real Time Images

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Dr.D.N.Rao., Prof, Dept of ECE, D.R.K. Institute of Science & Technology, Hyderabad
Dr.S.Vathsal., Prof, Dept of EEE, IARE, Dundigal,Hyderabad,

Abstract:--

The main aim of the paper is to deblurr and denoises the real time images so that the image can appear more clear and sharper. Denoising and deblurring of images are among the most fundamental problems in image processing. The problem of image denoising is to find a clear image from a noisy image. Basically wiener filter is used to produce an estimate of a desired or target random process by linear time invariant filtering of an observed noisy process, assuming known stationary signal and noise spectra, and additive noise. The wiener filter minimizes the mean square error between the estimated random process the desired process and to reduce the speckle/ Gaussian noise from the images based on components separation and wavelet shrinkage model with non-local means for preserving the image quality without any information loss.

Anisotropic diffusion, is a technique aiming at reducing image noise without removing significant parts of the image content, typically edges, lines or other details that are important for the interpretation of the images. Anisotropic diffusion is a non-linear and space-variant transformation of original image.

Keywords:-

Image capturing, Wiener filter, Matlab software, wavelets, Anisotropic diffusion.

BOARD EVALUATION – A CRITICAL ANALYSIS

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Abstract:--

The Board, its composition and its performance evaluation is critical to corporate governance. Board evaluations can bring extraordinary benefits to the organisation and well conducted performance evaluation of the board will lead to significant improvements at each level of the organisation. A well defined and effective process of board evaluation will provide a positive note and will add value to the organisation as a whole. This article reviews the evaluation contents, frequency, methods and techniques. A critical analysis is made with respect to risks and challenges associate with board evaluation. Since boards vary in various institutions across the world, a uniform or acceptable framework for evaluating board performance is challenging.

Keywords:-

corporate governance, evaluation, board

Enhancing the property of brass by Friction Stir Process

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Abstract:--

Friction stir processing is an advanced machining process to improve the property of component . This is produced by forcibly inserting a non-consumable tool into the work piece and revolving the tool in a stirring motion as it is pushed laterally through the work piece. This research is to improve the mechanical property of brass by coating aluminum oxide by friction stir processing. M_2 tool is used at a speed of 710 rpm and feed of 12 mm / min. Material after the process was subjected to tensile test, hardness test, salt spray corrosion test and chemical analysis. Improvement in hardness was obtain in the surface composite layer. Beside, strength of the processed brass material also increased as compare to the normal brass work piece.

Study on Penetration Resistance Using Soil Cone Penetrometer in Ploughed and Unploughed Land

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R. Jeeva., Assitant professor, RVS College, Sulur, Coimbatore.
V.Vishnu., R & D, Mahindra Research valley, Chennai.

Abstract:--

The effect of tillage on soil resistance to penetration was determined on Agricultural Engineering College and Research Institute, Kumulur, TNAU, Trichy. Mould board plough is used for ploughing the soil and cone penetrometer is used to know about the penetration resistance of soil. The results showed that penetration resistance of the ploughed land is lower than the unploughed land in all the levels of depth. Increase in depth of field was increased the penetration resistance of ploughed and unploughed land.

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Optimization of Irrigation and Fertilizer Scheduling Using Cropwat 8.0 under Fully Automated Drip Irrigation for Hybrid Maize

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Abstract:--

The experiment was to optimize the requirement of irrigation and fertilizer level for hybrid maize during *rabi* season based on the climatic data. On this basis irrigation scheduling and fertilizer scheduling is programmed in the fully automated drip irrigation system. Irrigation scheduling was done by calculating the crop water requirement using the climatic data of the cropping period. CWR is calculated by using formula and also by CROPWAT 8.0 produced by FAO. The yield effects under optimized fertilizer level in Hybrid Maize NK6240-Syngenta in fully automated drip irrigation condition was analysed. The crop water requirement was calculated for Hybrid Maize NK6240-Syngenta and scheduled based on the climatic data of the cropping period using CROPWAT8.0. The yield were higher in T_5 (125 % RDF) and showed a significant difference in the plant growth .Following this T_4 (100%) and T_3 (75%) showed similar reading almost revealing that fertilizer applied at root zone is effectively used by the plant in turn resulting in 20-25% saving of fertilizers. The highest water use efficiency of 65.104 kg per ha per mm was recorded in treatment T_5.The highest N, P and K fertilizer use efficiency of 81.37kg ha^{-1} kg of N, 162.74 kg ha^{-1} kg of P and 162.74 kg ha^{-1} kg of K were recorded in T_3, which is with 75 per cent RDF and the least N, P and K fertilizer use efficiency of 66.68 kg ha^{-1} kg of N, 133.364 kg ha^{-1} kg of P and 133.364 kg ha^{-1} kg of K were recorded in T_5 treatment with 125 percent RDF. Leaching effect is reduced in the soil.

Key words:-

Iirrigation scheduling, Climatological data , CROPWAT8.0

Sparse Vector Quantization and Genetic Algorithm Similarity Measure based Image Indexing Technique for CBIR

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Abstract:--

Content Based Image Retrieval (CBIR) plays a significant role in the image processing field. Based on image content, CBIR extracts images that are relevant to the given query image from large image archives. The effective utilization of data stored in digital library is possible through effective image indexing and retrieval techniques. Vector Quantization (VQ) method appears to be good candidate for image indexing in CBIR, however, this method is inefficient to work on large scale image databases. Sparse Vector Quantization (SPQ) is employed to encode the high-dimensional vector of image features, where thesparse coding technique is introduced into approximate nearestneighbor search using soft assignment technique, apart from hard assignment employed VQ. In addition, the computation of similarity amongst the query and target image using simple Euclidean Distance is also very expensive. Thus, GeneticAlgorithm-based similarity measure is performed between the queryimage features and the database image features in Sparse Vector Quantization. Hence, from the proposed Sparse Vector Quantization and GeneticAlgorithm-based similarity measure Image Indexing technique, the database images that arerelevant to the given query image are retrieved. The performance efficiency of the proposed approach is analyzed using three image datasets such as Corel-1K, Corel-10K and Oxford-5K and showed that this approach has good precision -recall curve and maximum f-score values when compared to the existing compared CBIR approaches.

Determination of Surface Drainage Coefficient through Rainfall Analysis

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Abstract:--

Drainage is removal of undesirable excess water from a region; crop land, city streets, dwelling place, playground, airport etc. The drainage need is expressed in terms of drainage coefficient. Drainage coefficient is expressed as the depth in centimetre of water drained off from a given area in 24 hours. Daily rainfall data was analysed to obtain one to four consecutive days maximum rainfall. One to four consecutive days maximum rainfall data were arranged in descending order. Accordingly ranks are given for each year 1991 to 2014. Then by lognormal, Weibull and Gumbel distributions probabilities corresponding to maximum rainfall were found out. Excepted values for one to four consecutive days were estimated by three most widely used probability functions namely Gumbel, lognormal and extreme value type-III distribution. One to four consecutive days rainfall valves were computed for R.I of 5,10,15 and 20 years. The drainage coefficients were calculated by subtracting basic infiltrations rate from consecutive days rainfall for RI of 5, 10, 15 and 20 years.

Key words:-

Drainage coefficient , consecutive rainfall data

Implementation of Solar based Electric Vehicle

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Abstract:--

The renewable energy is vital for today's world as in near future the non-renewable sources that we are using are going to get exhausted. The solar vehicle is a step in saving these non-renewable sources of energy. This paper discusses about the application of solar energy to power up the vehicle .The basic principle of solar based electric vehicle is to use energy that is stored in a battery during and after charging it from a solar panel. The charged batteries are used to drive the motor which serves here as an engine and moves the vehicle in reverse or forward direction. The Photo Voltaic (PV) Module may be connected either in parallel or series, but it's costlier. Thus to make it cost effective; power converters and batteries are been used. The electrical charge is consolidated from the PV panel and directed to the output terminals to produce low voltage (Direct Current). The charge controllers direct this power acquired from the solar panel to the batteries. According to the state of the battery, the charging is done, so as to avoid overcharging and deep discharge. The voltage is then boosted up using the boost DC-DC power converter, and then an inverter through which DC power is converted to AC power ultimately running the BLDC motor which is used as the drive motor for our vehicle application. This paper focuses on the design, simulation and implementation of the various components namely: solar panel, charge controller, battery, DC-DC boost converter, DC-AC power converter (Inverter circuit) and BLDC motor required for the vehicle application. All these components are studied in real time and also modeled individually using MATLAB/SIMULINK and the complete hardware integration of the system is tested to meet up the application's requirement.

Key words:-

Photo Voltaic, Brushless DC motor, Field Programmable Gate Array, Active Neutral Point Clamped Multilevel Inverter

Bypass Flow Behavior of Paddy Soil under Alternate Flooding and Drying Cycles in Cracked Clay Soil

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Abstract:--

Bypass flow is rapid downward movement of water and solutes beyond the root zone of the crop along with air-filled of the cracked soils. Paddy field is generally subjected to many cycles of alternative flooding and drying condition (AFD) during rice growing period. This alternate condition cycles can create a large variation in soil structure that subsequently affects soil water and nutrient retention and migration. Bypass flow processes were studied in a cracked, previously puddle rice soil. Vertical continuity of soil cracks 12 mm in width was determined in the field using a morphological staining technique. An infiltration experiment showed that water was mainly absorbed in the subsoil between 0.3 and 0.6 m depth. This study aimed to investigate the soil shrinkage behavior, cracked surface area and its consequences on water percolation in paddy fields under AFD.

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Development, Performance & Evaluation of Automatic Vegetable Transplanting Mechanism for Protray Seedlings

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Abstract:--

Most of the vegetables like tomato (Solanum lycopersicum), chilli (capsicum annuum l.) and eggplant (solanum melongena) are first sown in nursery beds and later transplanted manually either on ridges or on a well-prepared seedbed. Moreover, there are several activities involved in the vegetable transplanting operation. Particularly transplanting of vegetable seedlings are labour intensive. In India, labour requirement for manual transplanting of vegetables varies from 240 to 320 man-h ha-1. Keeping the above facts in view, the research was conducted on development and performance evaluation of an automatic gripping type transplanting mechanism for plug type vegetable seedlings. Tomato, chilli and brinjal seedlings were considered as the transplanting object which is local and major plug type protray vegetable seedlings of Tamil Nadu. 40 and 25 days old chilli, brinjal and tomato seedlings were used for the study. Well decomposed coco-pith was used as media for raising the vegetable seedlings. Moisture content of the growth media was found that 68.46%. The tray contains 98 cells in which the arrangement of cells is 14 x 7. The growth characteristics of vegetable plug type protray seedlings were recorded. Development of an automatic transplanting mechanism consisted of pneumatic actuated gripper for grasping and releasing the plug type seedling, pneumatic cylinder for remove the seedling from the protray cell and linear rail used for transplant the seedlings in linear motion which moves on linear guide way. The entire operations of transplanting mechanism were programmed in microcontroller which is controlled by Programmable Logic Controller (PLC) unit. Pneumatic air was supplied from compressor to the pneumatic actuated gripper and cylinder through Filter Regulator Lubricator (FRL) unit. The transplanting rate of developed mechanism was set as 20 - 25 seedlings per minute. The success ratios of automatic transplanting of seedlings were 87.22%, 91.72% and 89.85% for 25 days old tomato seedlings, 40 days old chilli and brinjal seedlings respectively. In terms of success ratio of transplanting, the average for the three kinds of seedlings was 89.59%. The pick-up device satisfactorily grasped and removed each seedling from the protray, and transported the seedling to the place where they would be precisely transplanted into the ground.

Key words:-

Protray seedlings, gripping mechanism, pneumatic gripper and success ratio.

Development of a soil moisture detector system for effective water management and agricultural productivity based on smart irrigation

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Abstract:--

Agricultural sector is playing vital role in Indian economy, in which irrigation mechanism is of key concern. Our paper aims to find the exact field condition and to control the wastage of water in the field and to provide exact controlling of field by using the drip irrigation. It describes an application of soil moisture detector and gypsum block sensor (developed by AEC&RI) for controlled irrigation and real time monitoring water content of soil. Soil moisture detector is made up of two electrode probe to pass current through the soil, so we tend to read that resistance to induce the moisture level. Once the soil is dry condition the soil moisture detector measure the resistance and convert into volts. Soil moisture detector and relay actuates the solenoid valve. If solenoid valve open the pump is ON then the flow can happen by pressure sensor, whereas the soil is wet condition, the solenoid valve closes. Gypsum soil moisture sensor is the electrical resistance between electrodes embedded in a porous medium (block) is proportional to its water content, which is related to the soil water matric potential of the surrounding soil. Automation of irrigation systems has the potential to provide maximum water productivity by maintaining soil moisture in the field at optimum levels. This automated irrigation system works without wire and wireless technology. Hence the farmers can use the low cost automated system in the field with the help of soil moisture detector and gypsum block.

Keywords:-

Arduino, Automation, Gypsum block, Pressure sensor and Soil Moisture detector

Design and Development of Cassava Physical Properties Apparatus

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Abstract:--

To develop the cassava sett planter measurement of cassava physical properties were needed. However, there is no instrument has been developed to analyse the physical properties of cassava. Cassava physical properties apparatus were designed by using of solid works software 2016. Construction of the test rig work was fabricated in the laboratory. It consists of trapezoidal frame, feed trough, angle indicator and screw shaft. The angle of feed trough can be adjusted manually by screw conveyor shaft. Cassava setts were placed on a feed trough can be used to measure the Co-efficient of friction, rolling resistance and angle of repose with different moisture contents.

Development of Power Tiller Operated Harvester for Small Onion

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Abstract:--

Harvesting of small onion crop from the field is an important operation in the cultivation of small onion. In our country, few models of small onion harvesters are developed in which damage of bulbs are more so it is not used by farmers. Non-availability of matching equipment for different farm operations limits the versatility of the power tillers. Hence a small onion harvester is developed as an attachment to power tiller which will increase the annual usage of power tiller in the farmers holding in addition to make the power tiller a versatile power source. The structural analysis was carried out using SolidWorks software to predict the behavior of the digging tool while working in soil using the design parameters. The performance of power tiller operated small onion harvester was field tested for harvesting CO (On) 5 variety. The field capacity was found to be 0.08 ha h-1. The cost of harvesting with the small onion harvester was Rs. 918/- ha-1. The saving in cost and time were 59.2 and 93.75 per cent respectively as compared to conventional method of manual harvesting. The break-even point (BEP) of the small onion harvester costing Rs. 9000 was 60.13 h of operation per annum. The harvesting, conveying and soil separation efficiency of the developed harvester is 97.4, 86.9 and 84 per cent.

Keywords:--

Harvesting, Small onion, power tiller, Digging tool, SOLIDWORKS, field capacity

Content Based Image Retrieval: An Overview of Architecture, Challenges and Issues

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Abstract:--
The objective of this paper is to present a brief overview of existing Content-Based Image Retrieval (CBIR) technique. The CBIR method is used to retrieve relevant images from the database based on the query image submitted by the user. The retrieval of images from a database relies purely on the image features such as color, shape and object identification using texture(s) in the query image. Apart from CBIR architecture and its existing methods, the paper presents the issues and challenges of CBIR system that needs to be addressed along with the future scope.

Keywords:--
CBIR, Feature Extraction, Feature Dimension, Dimensionality Reduction, Relevance Feedback, Similarity Measures.

Reserved and Accountable Conversation Inside The Cloud

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Abstract:--
Cloud computing safety or, extra truly, cloud security refers to a broad set of rules, technologies, and controls deployed to protect facts, packages, and the related infrastructure of cloud computing. imposing a cloud computing strategy method putting vital records in the hands of a third celebration, so making sure the information stays comfortable both at rest (statistics dwelling on garage media) as well as whilst in transit is of paramount significance. facts resting inside the cloud wishes to be reachable only via those legal to do so, making it important to each restriction and screen who may be accessing the employer's facts thru the cloud. on this paper we describe one of the demanding situations of cloud protection and reveal a liable solution for keeping off it , provide maximum safety to data at relaxation.

Keywords:--
Cloud protection, digital machine,TPA and IMC.

Power Reduction Testing Techniques of BIST and ATPG for Low Power Circuits

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Abstract:--

The power techniques that reduce power consumption during test application are generally referred to as power-conscious testing, power-aware testing, power-constrained testing, or low-power testing. These terms will be inter changed for use throughout the chapter whenever fit. The main motivation for considering power consumption during test is that generally, a circuit consumes much more power in test mode than in normal mode

During the last two decades, the number of power reduction techniques for testing have evolved. These techniques either explore the ATPG and deal with the test vectors to be used with external testing or explore the internal structure of design using BIST or DFT. So existing low-power testing scheme is divided into the following two categories.

(i) Low-Power Testing Techniques for Internal Testing using BIST, DFT
(ii) Low-Power Testing Techniques for External Testing using ATPG,ATE

Low-Power Built-In Self-Test Logic built-in self-test (BIST) is a DFT technique in which a portion of the circuit under test (CUT) is used to test itself. Because it can provide self-test ability, logic BIST is crucial in many applications, in particular, Low Power Testing one major objective of logic BIST is to obtain high fault coverage; however, a major issue is that power consumption during BIST can exceed the power rating of the chip or package. Increased average power can cause heating of the chip and increased peak power can produce noise-related failures we discuss a number of low-power BIST architectures and methodologies to reduce power consumption. A logic BIST controller is required to control the BIST operation. The test pattern generator (TPG) automatically generates test patterns that are applied to the inputs of the circuit under test (CUT) and an output response analyzer (ORA) is used for compacting the circuit's output responses. In practice, in-circuit TPGs constructed from linear feedback shift registers (LFSRs) are commonly used for exhaustive, pseudo-exhaustive, or pseudo-random testing. This is mostly due to the fact that these LFSRs incur little area overhead and can be used as both TPG and ORA.

low-power ATPG method for efficient capture power reduction during scan testing tries to achieve two goals: the primary one being the detection of targeted faults and the secondary one being the minimization

of the difference between before-capture and after-capture output values of scan cells. This is achieved by introducing the concept of a capture conflict (C-conflict) in addition to the conventional detection conflict (D-conflict). A C-conflict occurs when a difference between the before-capture and after-capture output values of a scan cell is created by logic value assignment during ATPG. A C-conflict, in the same manner as a D-conflict, may be avoided through the backtrack operation. However, backtracking for a C-conflict may make fault detection impossible. In this case, the backtracking for the C-conflict is reversed, and the transition at the scan cell is tolerated since the primary goal is fault detection.

The second set of techniques to reduce test power is to use power-aware X-filling heuristics that do not modify the overall ATPG process. Given a set of deterministic test cubes, the main goal of these techniques is to assign values to the don't care bits of each test cube so that the number of transitions in the scan cells is minimized. By reducing the number of transitions in the scan cells during scan shifting, the overall switching activity in the CUT is also reduced; power consumption during test is thus minimized. Most of the time, the X's are assigned with the help of the following classical non-random filling heuristics:

1. Abstract. Test power is the major issue for current generation VLSI testing. ...
2. Introduction. The power consumption has been a major challenge to both design and test engineers. ...
3. Low-Power Test. ...
4. Low-Power Testing Schemes. ...

ICT, IoT and Big Data Analytic in Smart City

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Abstract:--

Administration of city is an enormous task involving several functions, infrastructure and organization. Managing the resource competently without compromising the requirement of citizens, quality and maintaining healthy environment is obligatory for any city. The cities are needed to complete renovation or needed to be smarter. So that it can face the latest challenges due to immediate changing of environment. Thus, the various methods and concepts are discussed, which can be employed in the day to day activities of the city. In this study, the various devices involved in the smart city, Big Data, Integrated data management center and tools used in the smart city are discussed. An evaluation was made on different applications and comparisons were made between the smart city and normal city discussed with few case studies. This hypothesis work is an opportunity to study the smart city concept and contribute to make the cities smarter and secure.

Keywords:--

Data management centre, Smart water management, Traffic congestion management, Bus rapid transportation system

GSM Mobile Phone Based LED Scrolling Message Display: Pre-analysis

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Abstract:--

In the last couple of decades, communication technology has developed by leaps and bounds. The use of "Embedded System in Communication" has given rise to many interesting applications. One of such applications is public addressing system (PAS). Many companies are manufacturing audio / video systems like public announcement system, CCTV, programmable sign boards etc. But all these systems are generally hardwired, complex in nature and difficult to expand. So, by adding wireless communication interface such as GSM to these systems, we can overcome their limitations. GSM network is widely used today whether it is for calling or SMS. Also some of the places need urgent notices like in college, railway stations share-market, and this notice should be in real-time, so we need a real-time notice. This project is our experiment to give a start to the era of real-time noticing. This project is about writing the message which is to be displayed in mobile and send it as SMS to other side. This received message is fetched into Microcontroller and after authentication it is displayed on LED scrolling display.

Now-a-days LED Message Scrolling Displays are becoming very popular .These displays are used in shopping malls, theatres, public transportation, traffic signs, highways signs, etc. This paper describes the GSM based LED display.

Index Terms:--

GSM Modem, Message, Scrolling LED display, SMS.

Safe and Sustainable Industrial Development for Better Future

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Abstract:--

Rapid growths of population, consumption of natural resources are making this planet a hot mass. If the same rate of industrial growth is continued, then within few years, all the natural resources will be exhausted. The greed of human kind, converting natural resources into artificial products without considering the effects on the human life has changed the eco-system balance. The wealth is increasing but health is getting worse just because of unplanned natural resources exploitation. The industrial wastes were also causing damage to local eco-systems and resulting into global warming. The rise of sea water levels, melting polar ice caps, reduction of rainfalls, increase in number of cyclones, exhaustion of wildlife is all due to rapid industrialization and unplanned waste management. Efforts are taken to present the safe and sustainable industrialization methods, policies for benefitting industries and environment. Adoption of sustainable industrialization will help to attain global sustainable development objectives.

Index Terms:--

Sustainable Engineering, Manufacturing Industries, Environmental Management, Waste Management, Renewable energy