ICRTEMS-19

International Conference on Recent Trends in Engineering, Management and Science

Faridabad, Haryana

26th & 27th September, 2019

Organized by:

Delhi Institute of Technology Management & Research [DITMR]

&

Institute For Engineering Research and Publication [IFERP]

Rudra Bhanu Satpathy,
Chief Executive Officer
Institute For Engineering Research and Publication.

On behalf of ***Institute For Engineering Research and Publications (IFERP)*** and in association with ***Delhi Institute of Technology Management & Research (DITMR),*** Faridabad, Haryana. I am delighted to welcome all the delegates and participants around the globe to ***Delhi Institute of Technology Management & Research (DITMR), Faridabad, Haryana*** for the ***"International Conference on Recent Trends in Engineering, Management and Science (ICRTEMS -2019)"*** Which will take place from ***26th - 27th September'19***

Transforming the importance of Engineering, the theme of this conference is ***"International Conference on Recent Trends in Engineering, Management and Science (ICRTEMS -2019)"***

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 & DITMR)** 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 ***Faridabad, Haryana***

Sincerely,

Rudra Bhanu Satpathy

Preface

The ***"International Conference on Recent Trends in Engineering, Management and Science (ICRTEMS-19)"*** is being organized by ***Delhi Institute of Technology Management & Research (DITMR),*** Faridabad, Haryana in association with ***IFERP-Institute for Engineering Research and Publications*** *on the 26th – 27th September, 2019.*

Delhi Institute of Technology Management & Research has a sprawling student –friendly campus with modern infrastructure and facilities which complements the sanctity and serenity of the major city of Faridabad in Haryana.

The ***"International Conference on Recent Trends in Engineering, Management and Science"*** was a notable event which brings Academia, Researchers, Engineers, Industry experts and Students together.

The purpose of this conference is to discuss applications and development in area of **"Engineering, Management and Science"** which were given International values by ***Institute for Engineering Research and Publication (IFERP).***

The International Conference attracted over 125 submissions. Through rigorous peer reviews 58 high quality papers were recommended by the Committee. The Conference aptly focuses 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 are also thankful for the cooperative advice from our advisory Chairs and Co-Chairs. We thank all the members of our local organizing Committee, National and International Advisory Committees.

ICRTEMS-19

Message from Chairman

Mr. S. P. Lall

Hon'ble Chairman,

DITMR

I am pleased to welcome you to International Conference on recent trends in engineering, management and sciences-2019 (ICRTEMS-2019) to be held on 26th -27th Sep, 2019 at DELHI INSTITUTE OF TECHNOLOGY, MANAGEMENT AND RESEARCH in association with Institute for Engineering Research and Publication (IFERP), Chennai.

The intent of any conference is not only to discuss lively and emerging issues of a particular domain but also dissemination of the awareness among other learned folks. Over the years, dramatic improvements have been made in the field of Soft Computing and Communication Technologies and applications. I hope ICRTEMS -2019 will become surely the most important International conference dedicated to bring out latest trends in Engineering and Technology.

In order to provide an outstanding technical level for the presentations at the conference, we have invited distinguished experts to participate in the Technical Programme Committee. We will have Technical sessions, plenary sessions by keynote speakers during 2 days of conference including the awards presentation during the closing session on the last day of the conference.

I hope ICRTEMS -2019 will make you aware of state-of-the art systems and provide a platform to discuss various design issues and challenges.

Mr. S. P. Lall

Message from Vice-Chairman

Mr. Narender Dhingra

Vice-Chairman

DITMR

The purpose of the International National Conference on recent trends in Engineering, Management and Sciences-2019 (ICRTEMS-2019) is to bring together Researchers, Faculty Members, IT Professionals, Engineers and Practioners interested in the technology advances and new innovation in the field of Engineering, Management and Sciences.

The idea to host the ICRTEMS-2019 in DITMR at Faridabad is to bring together Researchers, Scientists, Engineers, Scholars and Students in the areas of Mechanical, Civil, Computer Science, Electronics and Communication Engineering and Electrical Engineering.

The various thematic sessions will showcase important technological advances and highlight their significance and challenges in a world of fast changes. I welcome all of you to attend the plenary sessions and oral presentations and invite you to interact with the conference participants

I am pleased to welcome you to International Conference on recent trends in Engineering, Management and Sciences-2019 (ICRTEMS-2019) to be held on 26th -27th Sep, 2019 at DELHI INSTITUTE OF TECHNOLOGY, MANAGEMENT AND RESEARCH in association with Institute for Engineering Research and Publication (IFERP), Chennai

Narender Dhingra

Message from Director

Dr.Bharat Chede

Director

DITMR

Dear Friends and Colleagues,

It is a great pleasure and an honor to extend to you a warm invitation to attend the International Conference on Recent Trends in Engineering, Management and Science (ICRTEMS -2019) to be held on 26th -27th Sep, 2019 at DELHI INSTITUTE OF TECHNOLOGY, MANAGEMENT AND RESEARCH in association with Institute for Engineering Research and Publication (IFERP), Chennai.

The theme of ICRTEMS -2019 'Advances in Signal Processing, Power, Embedded, Soft Computing, Communication and Control Systems' will underpin the need for participation in forums for collaborative Research and cooperation of individuals from a wide range of professional backgrounds.

The ICRTEMS -2019 Conference will provide a wonderful forum for you to refresh your knowledge base and explore the innovations in Engineering and Technology. The Conference will strive to offer plenty of networking opportunities, providing you with the opportunity to meet and interact with the scientists and researchers, friends as well as sponsors and exhibitors.

I hope you will join us for a symphony of outstanding Conference, and take a little extra time to enjoy the spectacular and unique beauty of Kurnool city and its surroundings.

Dr. Bharat Chede

Message from Principal

Dr.P.K. Mandal

Principal

DITMR

Dear colleagues and guests,

On behalf of the Local Organizing Committee and DITMR, the hosting institution and IFERP, it is my great pleasure to welcome you to International Conference on Recent Trends in Engineering, Management and Science (ICRTEMS-19) to be held on 26th -27th January, 2019 at DELHI INSTITUTE OF TECHNOLOGY, MANAGEMENT AND RESEARCH in association with Institute for Engineering Research and Publication (IFERP), Chennai.

The ICRTEMS-19 Conference will foster discussions and hopes to inspire participants from a wide array of themes to initiate Research and Development and collaborations within and across disciplines for the advancement of Technology. I feel it is important to reiterate the need to translate Engineering & Technology into knowledge to help overcome societal challenges.

The Local Organizing and Conference Committees will make any possible effort to make sure that your participation will be technically rewarding and a pleasurable experience of our Kurnool City.

I am looking forward to meeting you in DITMR during ICRTEMS-19 and to sharing a most pleasant, interesting and fruitful conference.

Dr.P.K. Mandal

ICRTEMS-19

International Conference on Recent Trends in Engineering, Management and Science

Keynote Speakers

Dr. VASDEV MALHOTRA

Ph.D,M.tech, MBA, B.tech, CEIEI, FIE, PGDIM,PGDIHRM
Associate Professor in Mechanical Engineering
J.C Bose University of Science and Technology
(State Govt. University)
Sec -6, FARIDABAD -121006, HARYANA, India

MESSAGE

I am indeed honored to be the Keynote Speaker at " International Conference on Recent Trends in Engineering, Management and Science (ICRTEMS-2019) , organized by Delhi Institute of Technology Management and Research and Institute For Engineering Research and Publication (IFERP) at Faridabad during 26th & 27th , Sep. 2019.

Advanced Manufacturing Systems play pivotal role in bringing the benefits of technological innovations to all sections of the society and accelerating the economic growth of the country. The theme of the International conference has been chosen keeping in view the changes happening in the technology domain and need to learn the future technologies to remain innovative. This conference provides an interdisciplinary forum for Engineers , scientists, industrialists, researchers and delegates to meet International keynote speakers and debate on technological innovations. This Conference also offers scope for engineering professionals to present their research and innovations leading to solve many problems of application in several disciplines. ICRTEMS-19 will create a knowledge bridge between industry professionals and academic researchers and provides an excellent International platform for sharing research knowledge in the fields of Engineering & Technology.

IFERP, being a leading professional Association body of South Asia, organizes conferences at National and International levels; thus providing technical know how to enhance Research & Development activities and publishing high quality International Journals and other transactions.

I extend a warm welcome to all the speakers , researchers and delegates of the conference and wish that this International conference ICRTEMS-2019 will bring forth valuable outcomes.

(Dr. VASDEV MALHOTRA)

Prof. HARDEEP SINGH
The Principal
Saraswati College of Management & Technology
(Under Guru Nanak Dev University) Jandiala Guru
Amritsar

MESSAGE

I am delighted to note that Delhi Institute of Technology Management & Research (DITMR), Faridabad (Haryana0 India is organizing International Conference on Recent Trends in Engineering, Management and Science-2019 (ICRTEMS-2019) on September 26th – 27th , 2019. The objective of ICRTEMS-2019 is to present the latest research and results of scientists and philosophers (preferred students, post graduate Students, Research Scholars and post-doc scientists) related to Mechanical, Civil, Electrical, Electronics & Communication Engineering and Computer Science & Engineering and Business Research & Management. Certainly, these type of international conferences not only bring all the researchers, students at one platform, but also inculcate the research culture among the entire fraternity of education in the countries, thereby, contributing to the development of various nations.

The research conducted in academic institutions, industry, R&D Laboratories and elsewhere plays a critical role in raising our standard of living, creating jobs, improving health and providing for national security and development. I am sure that this conference will inculcate the much needed research culture among the students and teachers and trigger interactions among researchers to exchange the ideas of recent advances in the areas of Engineering, Management and Science.

I hope that this conference would certainly also induce innovative ideas among the participants paving way for new inventions and technological advances in the distributed energy generation, smart grid technology, ways, means for mitigating power quality issues and various Management Areas (Marketing Management, Human Resource Management, Finance Management, Personnel Management and Total Quality Management).

I also extend my heartiest congratulations to all the faculties of Delhi Institute of Technology Management & Research (DITMR) that have made commendable efforts for organizing this event and convey my greetings to the organizers.

I wish a grand success in the endeavor for the event.

(HARDEEP SINGH)

ICRTEMS-19

International Conference on Recent Trends in Engineering, Management and Science

Faridabad, Haryana, 26th - 27th September , 2019

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- **Prof. Rupesh kumar,** Associate Professor of ME. DITMR

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International Conference on Recent Trends in Engineering, Management and Science

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ABSTRACTS

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

Arduino Based Hill Collision Alert System: An Approach

Rajat Mehta, B.Tech, Electronics and Communication Engineering, Guru Gobind Singh Indraprastha University, New Delhi

Abstract:--

One returns into human forms, after having wandered through other life forms. The importance of human life cannot be overemphasized as it drives overall economic growth. This research focuses on problems associated to accidents of vehicles in hilly areas. Through this paper, I provide an approach to a more secured and enhanced system to avoid accidents in hilly areas and minimize human injury and deaths. In this system, the vehicle is warned on detection of rocks and cliffs. The system uses infra-red sensors paired with arduino controller. Arduino sends the warning to the driver in the absence of an object (rocks). A Wi-Fi camera module is also installed in the vehicle which sends real time images. The module is made to use Artificial Intelligence's subset Machine learning to enhance the security of vehicle. The module is designed to secure accidents. The system contacts the Arduino using its serial communication protocol (Universal Asynchronous Receiver/Transmitter) for efficient use of system and to minimize the rate of collision.

Keywords:-

Arduino, camera module, infra-red sensor, machine learning, raspberry pi zero, vehicle safety.

A Comprehensive Study of Recommendation System: Trends and Future

Shefali Gupta, Jagannath University, Jaipur

Dr. Meenu Dave, Jagannath University, Jaipur

Abstract:--

Recommendation system plays a key role in e-commerce universe and is used in many applications, websites and more. It has led to synergies between applications, created global village and growth of information. This paper repre-sents the overview of approaches and techniques generated in recommendation systems. Recommendation system is categorized in two classes: Personalized and Non-personalized, which is further divided into various approaches and tech-niques. This paper discusses each of the methodology in detail highlighting their strengths and weaknesses.

Keywords:

Recommendation System, Collaborative filtering, Content Based Filtering, Knowledge Based Filtering, Hybrid Filtering, Personalized recom-mendation system, Non-Personalized recommendation system

Control and Design of Seven Level Cascaded Multi level Converters for Transformer less Large-scale Photovoltaic Integration

Jyoti, Guru Nanak Dev Institute of Technology, GNCT of Delhi, Delhi

Narendra Kumar, Guru Nanak Dev Institute of Technology, GNCT of Delhi, Delhi

Bhim Singh, Guru Nanak Dev Institute of Technology, GNCT of Delhi, Delhi

Abstract:--

Multilevel converters are best suited for integrating large-scale photovoltaic power plants with the grid. These converters integrate renewable energy sources with a medium voltage grid without bulky line frequency transformers. This paper presents a single-stage solar photovoltaic power generating system connected with the grid using a decoupled control scheme. Low switching frequency phase-shifted PWM, which reduces the switching frequency losses and hence improves efficiency, is used for the control. The control scheme comprises of separate MPPT controller for each SPV array to overcome or compensate for the unpredictable irradiance level variations, ambient temperature, shading effect, and other relevant factors. The performance is studied in a steady state. The simulation is carried out in MATLAB Simulink and the performance is validated in accordance with IEEE-519 standard.

Keywords:--

MPPT, SPV, SRF-PLL, Phase shifted PWM, VSC, THD

Haptic and Tactile Sensing Methods for Master-Slave System in Medical Robotics

Seema, Research Scholar, Electrical Engineering Department, DCRUST Murthal

Jasbir Singh Saini, Professor, Electrical Engineering Department, DCRUST Murthal

Sanjeev Kumar, Senior Scientist, Central Scientific Instruments Organisation, Chandigarh, India

Abstract:--

Sensors for robots have been a widely discussed and researched topic. Various industry-accepted sensors based upon diverse principles include optical sensors, acoustic sensors, inductive sensors, capacitive sensors, resistive sensors, piezoelectric sensors, magnetic sensors, thermal sensors, etc. All these are used to perform different types of sensing functions in the robot, like force sensing, position sensing, shape sensing, collision prevention, and smart-sensing. In this paper, we have discussed the various tactile, vibrotactile and haptics based sensing methods. The sensors, associated components, software and hardware issues, constraints, requirements, development, and research issues have been discussed, in particular related to Master-slave system in medical robotics. An experimental implementation in the context has also been briefed in the paper.

Index Terms:

Haptic, Tactile sensing, Vibrotactile sensing

Wound Healing Based Optimization – Vision and Framework

Seema Chawla, Faculty of Engineering & Technology, DCRUST Murthal
Jasbir Singh Saini, Faculty of Engineering & Technology, DCRUST Murthal
Manish Kumar, Faculty of Engineering & Technology, DCRUST Murthal

Abstract:--

The engineering society is looking towards nature – the greatest developer & teacher of the mankind, for finding solutions to its day-to-day problems. Like many concepts proposed till date, the ideas of which have been taken from none other than the nature, we propose another optimization technique based on a biological phenomenon – the complex but an advanced and well organized process of wound healing. An extensive study, of wound healing processes and the factors affecting it, shows that the process is a highly organized, efficient and robust one. The process of wound healing, which involves synthesis, production, degradation, necrosis, etc., is handled by nature in a wonderful way. This flawless working of nature and the many types of models proposed till date for the process are an inspiration for us to develop the process into an optimization technique for solving our practical problems. Thus, in this work, we envision and implement a new optimization technique based on wound healing. We term it as Wound Healing Based Optimization (WHO). Fairly good results have been obtained by applying the proposed algorithm onto the sphere problem. However, it is also observed that there is a scope for improvement and we are working towards a more robust and generalized algorithm. Our future research agenda includes the same.

Index Terms

Elements, Parameters, Wound

Natural Ways to Decompose Plastics

Vijayshree, Department of Biomedical Engineering Deenbandhu Chhotu Ram University, Murthal, Sonipat

Seema Chawla, Department of Biomedical Engineering Deenbandhu Chhotu Ram University, Murthal, Sonipat

Abstract:--

Science and technology has given various good things and their applications to us. But along with their benefit some goods are harmful too for both human being and our environment. Plastic is one of them, which has many commercial as well as daily uses. There are many advantages of it but one main drawback is that it's not degradable by nature. It can neither be degraded naturally nor synthetically. If we even try to degrade it chemically or physically, it would produce many harmful by products which are toxic in nature and pollute the environment as well. So, the only safe way is biodegradation. In recent discoveries many microbes are found to degrade different types of plastics biologically. We have tried for two sources of university premises the polluted soil of dumping site and the sewage effluent. And during the study we isolated two bacterial strains, which have removed some percentage of PET plastic in a bacterial broth media in its initial 24 hrs. The study is going on further. The aim of this paper is to spread awareness and create innovation to all young minds to find new ways to overcome from plastic pollution crisis of the mother Earth.

Index Terms

Biodegradation, Environmental Pollution, Microbial Strains, Plastics.

Direct and Dissociative Ionization Cross Section of Oxygen Molecule from Threshold to 10 KeV

Ravinder Sharma, Research Scholar, Dept. of Chemistry, Baba Mast Nath University, Rohtak, Haryana, India

S.P.Sharma, Professor & Dean Faculty of Sciences, Dept. of Chemistry, Baba Mast Nath University, Rohtak, Haryana, India

Abstract:--

Due to abundant applications of ionization cross sections of gaseous atoms and molecules in various fields of applied sciences, it's desirable to calculate absolute ionization cross section of various atoms and molecules. In this literature, we have calculated the absolute direct and dissociative ionization cross sections of oxygen molecule from threshold energy to 10,000 eV by using modified Jain-Khare semi-empirical approach.

In this literature the total direct and absolute ionization cross section data have compared with easily available experimental and/or theoretical data. It is found that the present results give a better account for the ionization cross sections up to higher incident electron energies.

Keywords:--

Direct and Dissociative Ionization, Electron impact ionization, Ionization Cross Section.

Comparative analysis of polyethylene glycol, crosslinked polyethylene glycol & polyethylene glycol chitosan conjugate coating for Biomedical Application

Sarita, Deen Bandhu Chottu Ram Uni. Of Sci. and Technology Murthal Sonipat, India

Abstract:--

Polyethylene glycol used as coating materials because it resist to protein adsorption and bacterial adhesion. Polyethylene glycol and crosslinked polyethylene glycol & polyethylene glycol chitosan conjugate used for coating glass implants. Fourier transform infrared spectroscopy (FTIR) analysis showed proper crosslinking in crosslinked polyethylene glycol but in polyethylene glycol & chitosan conjugate no reaction takes place. Scanned Electron Microscope (SEM) used for study of surface morphology. Polyethylene glycol & chitosan conjugate have smoother surface than pure polyethylene glycol, polyethylene glycol chitosan conjugate. Differential scanning calorimetry (DSC) analysis used for glass transition temperature study. Crosslinked polyethylene glycol has good mechanical properties. Antimicrobial properties of polyethylene glycol chitosan conjugate are good in comparison to pure polyethylene glycol, crosslinked polyethylene glycol.

Keywords:

Chitosan, Polyethylene glycol (PEG), Antimicrobial properties, Mechanical testing, Thermal properties.

A Study on the effect of altruistic behaviour on employee satisfaction in Larsen & Toubro, Chennai

Mincy Mohan, Research and Development Centre, Bharathiyar University, Coimbatore
Dr.V Sasirekha, Research and Development Centre, Bharathiyar University, Coimbatore

Abstract:--

Organizational citizenship behaviour is a very important antecedent to ensuring organizational success. This study has focused on one of the major antecedent of OCB, which is altruism. The study has been conducted among the employees at L&T Construction, Chennai. The total population is 500 and a sample of 100 was taken based on convenience sampling. Exploratory research design was used. Data collection was done by means of questionnaire. The questionnaire focussed on measuring the altruistic behaviour of the employees and thereby figuring out the extent of satisfaction these employees enjoy, if there is a relationship between both. The result of the study indicated that altruism had a positive impact on satisfaction which in turn always has a positive effect on any job a person does. The findings of the study are important to impart motivation and further fuel altruistic behaviour.

Keywords:

Employee satisfaction, Altruism

Keeping up with the English Language in India

Dr. M. Shanmugathai, Professor in English, Sri Sai Ram Engineering College, Chennai-44,Tamilnadu
K. Poornima varalakshmi, Assistant Professor in English, Sri Sai Ram Institute of Technology , Chennai-44,Tamilnadu

Abstract:--

Almost since the times of pre independence, the Indianness in English had started spreading diversified impact and unlimited changes deeply mingled with its cultural heritage which can be noticed predominantly in people belonging to all strata of society. Today, hybrid pattern of English stalks the land of India and helps to improve further more the popularity of already popular English. Indian English has a long journey and it has been steadily entertaining and educating by weaving and mixing innovative word power which goes strongly with the new age users who are familiar with multiculturalism, The reasons being technology, social media, the willingness to be techno-savvy and the touring populace. This paper throws light upon different aspects which ensure the fact that Indian English is here to stay for centuries ahead.

Keywords:

Indian English, Diversified impact, Hybrid pattern, Multiculturalism, Techno

KSA – Approach" of Gap Analysis towards Management Graduate's Deliverables and Industry Expectations – A Contemporary Perspective of Human Resource Professionals

Dr. K S Usman Mohideen, Assistant Professor, Department of Management Studies, Sri Sai Ram Engineering College, Chennai.
S Helen Roselin Gracy, Assistant Professor, Department of Management Studies, Sri Sairam Institute of Technology, Chennai.
S Santhana Jeyalakshmi, Assistant Professor, Department of Management Studies, Mohamaed Sathak Engineering College, Kilakarai.

Abstract:--

The object of this study is to understand the gap between the performance of management graduates and employer's expectations from them. It is measured through KSA (Knowledge, Skills and Attitudes) approach for the services industry. The questionnaire was distributed to 210 Human Resource Professionals from different spectrum identified through convenience sampling method. Data analysed using Chi-square test, U-test and Weighted average rank. The findings indicated that to reduce a gap institute should increase an institute Industry interactions through Industrial visits, Lectures, etc., The Industry expectations are quite high so, the universities and institutes design curriculum based on the Industry expectations and review the knowledge imparting strategies.

Index Terms

Attitude, HR Professionals, Industry, Knowledge, Management Institute, Skills.

e-governance through e-seva in Tamilnadu

Dr.C.R.Senthilnathan, Sri Sairam Institute of Management Studies
Dr.V.Dhayalan, Sri Sairam Institute of Management Studies

Abstract:--

e-governance/e-seva has became a key mantra for the governments to improve their services to the general public after the advancement of Information and communication technology (ICT). India being a developing country, has initiated their ICT services in the form of eSava. Though government started these services in India about four year ago, this study is initiated to find the consumers perception on the eSeva centres and the gaps in the consumer expectations. Three constructs namely, system stability, service reliability and service quality are used in the study to measure the satisfaction. It is found that of the three measures, system stability and service quality have less positive impacts on consumer satisfaction indicating that definitely the government has to improve their service. Whereas the service reliability is better as far as the satisfaction level of the consumers concerned.

Index Terms:-

eSeva, Consumer perception, ICT, Service quality.

A Creative Approach to Enhance the Designed Life of [Existing + Future] MSW Landfills in Developing Countries.

Ravindra kumar, Delhi institute of technolgy, management & Research [ditmr]. Sohna road, firojpur kalan, Faridabad. Delhi ncr, india

Abstract:--

Municipal solid waste [msw] management is a Problem of evergrowing concern in developing Countries. This work is about a proposed effective Way with the potential of achieving up to 50% Reduction in the total volumof msw currentlyBeing transported to landfill sites for final disposal. The scope of the present work includes:- optimum Application of [most powerful] psychologica.Aspects, country specific engineering Considerations, basic working steps, immediate Benefits and assumptions involved, use of speciallyDesigned eco-friendly portable solid waste Collectors [swc] of variable size fitted with multiple Boxes of adjustable sizes for colleting each Component of msw seperately, a fleet of environmentally Safe waste carriers [wc] for carrying each Component of msw seperately, to respective Processing units, eco-friendly storage chambers [sc] For storing metals.

Basic working steps-

[1] the waste generators [urban people] themselves Will collect each component of msw seperately in The swc installed in front of each house and Commercial place at convenient location.

[2] the separate components of msw from swc will be Collected by a local agency in separate wc for Transporting directly to respespective processing Systems, and sc.

[3] only the unused solid waste from all processing Units will be transported for final disposal to Landfill site [in a total contrast to prevalent Practices of transporting all components of msw To landfill sites] – a ground reality [to be noted] or A bare fact, to be closely considered.

Immediate benefits –

1. Complete and permanent elimination of mini Waste dump sites scattered everywhere in the City.
2. Streets, roads, road sides, city parks and public Places of a city completely free of msw.
3. Ever increasing employment opportunities for Local [skilled + unskilled] youths.
4. The proprosed approach is independent of Adverse impacts of ever expanding urban areas, And sharp rise in urban population, a current Trend in developing countries.

Assumptions involved –

[1.] Msw management is a problem of national Importance.

[2.] Political leadership, urban population and city Authorities, are self motivated.

[3.] Sufficient funds are available.

[4.] All stakeholders are very well aware of theAdverse health and enviromental impact of Msw.

[5.] All stakeholders play pro-active role in effective Msw management.

[6.] Country specific relevant technology is being Used for planning, design and construction of Landfills, processing units and storage Chambers.

[7] effective programmes for continuous Motivation and awareness of all stakeholders.

IOT Based Smart Energy Meter using NodeMCU

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Abstract:--

The current electricity billing system with reference to the electricity meter reading has many drawbacks like extra bill amount, notification from electricity board even after paying the bills etc. This paper will discuss the idea of smart energy meter based on Internet-of-Things (IoT). This smart meter is able to absolutely remove the involvement of any other party between the service provider and customer. Moreover, it can allow an individual to observe the consumption of energy at anytime and anywhere via internet. The use of Wi-Fi module provides the notification through mail. The meter reading with total fare can be spotted on the web page. In the proposed method, Atmel microcontroller is used as it is energy efficient, faster and has two Universal Asynchronous Receiver-Transmitters (UARTs).

Keywords:

Arduino Uno, Internet-of Things (IoT), Smart billing system, Smart energy meter, NodeMCU, Web-server, Wi-Fi

Deep Metric Learning-based Face Recognition Pipeline with Anti-spoofing on Raspberry-Pi Single-Board Computer

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Abstract:--

Face recognition is an application of computer vision used for the identification of the persons present in an image / frame acquired through a camera sensor. Such a technology is already quite prevalent in multitude of cases such as security, biometric payments, augmented reality filters etc. In this paper, the concept, working and implementation of deep metric learning-based face recognition will be studied which is currently among state-of-the-art methods for face verification and recognition. Additionally, another module called anti-spoofing will be used to augment this face recognition pipeline to improve the security against photo and video based attacks that might be used by the malicious elements to spoof the face recognition system.

Index Terms:

Face recognition, Face verification, Computer vision, Anti-spoofing, Deep metric learning

A Survey: Recent Energy Efficient Clustered Routing Techniques used in WSN

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Abstract:--

Wireless sensor network has developed as essential addition to the modernized wireless transmission system. Optimum choice of the route for information transmission leads to saving of the power consumed that improves the network lifetime of WSN. Different routing, energy conservation, information distribution have been basically established for WSN in which power awareness is crucial design aspect. Routing protocol in WSN mainly depends on the applications and system structure because still there is no agreement on static transmission stack for wireless sensor system. To fulfill the need of abundant and persistent computing, new routing protocols are required. In this paper, classified routing protocols in different stages i.e. security aspects, characteristics, protocols, and challenges. In addition, routing protocols are considered on the basis of the similarity and differentiability of the sensor hops monitored by method of the grouped and non-grouped between them. Moreover, different protocols are explained in detailed approach.

Employees' Perception towards Effectiveness of Induction Program

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Abstract:--

The induction program in an organization becomes effective only if it fulfills the objectives and minimizes the gap between employees' perception to that of organization's goals. Previous research studies conclude that, employees' effectiveness has a significant effect on job competence, which in turn emphasizes on the induction programs. Hence, there is a need to understand the synergy between employees' perception towards induction program and the effectiveness of the same. Keeping in view, the researcher conducted an empirical study in a renowned IT Enabled Services firm in Chennai, having branches in USA, UK and Australia. The primary aim of the study is to understand the perception of employees' towards the effectiveness of induction program conducted in their organization. The hypotheses have been formulated to find the existence of relationships between dependent variables. The study administered a structured questionnaire to collect primary data, comprising of 120 samples. The collected data has been analyzed using descriptive research method. The study concludes that the induction program is an integral part in building organization-employee relationship in accordance with job competence.

Keywords:

Induction, Organization, Value System

Action Research: a supplementary source for the English Langauge Teachers

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Abstract:--

This paper tries to explore that, Action Research is a supplementary source for English Language Teachers to bring out better teaching outcome of the teachers and better learning outcomes of the students. In the current scenario, apart from the syllabus, English Language teachers expect a supplementary source to follow a new strategy in order to satisfy the expectations of the students inside the classroom. They face many challenges in the classroom and one of the important problems is to draw continuous involvement of the students as well as to create good understanding of the subject in the classroom. In this connection, Action Research helps the teachers to explore effective teaching strategy in the classroom. This Action Research is integrated with a new approach called MUSE (Manageable, Urgent, Significant and Engaging), that helps the teachers to plan effectively. Besides, it is an exploratory or activity based classroom research and so it encourages the students to learn effectively and understand clearly with more involvement in the classroom. This study suggests a need for the supplementary source and it also focuses on Action Research to aid the teachers.

Keywords:

Supplementary, Action Research, Manageable, Engage, Integrate, Exploratory

AES Encryption for Secure Cloud Storage

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Abstract:--

In cloud computing disseminated assets are shared by means of system in open condition. Subsequently client can without much of a stretch access their information from anyplace. Simultaneously there exist protection and security issues because of numerous reasons. Initial one is emotional improvement in system advances. Another is expanded interest for computing assets, which make numerous associations to re-appropriate their information stockpiling. So there is a requirement for secure cloud stockpiling administration in open cloud condition where the supplier isn't a confided in one. This paper tends to various information security and protection assurance issues in a cloud computing condition and proposes a technique for giving diverse security administrations like validation, approval and classification alongside checking in postponement. 128 piece Advanced Encryption Standard (AES) is utilized for increment information security and classification. In this proposed methodology information is encoded utilizing AES and afterward transferred on a cloud. The proposed model uses Short Message Service (SMS) ready instrument for keeping away from unapproved access to client information.

Keywords:

Network, Authorization, Confidentiality, Security, authorized searchable encryption

Hallucination of Face Images across Multiple Modalities Using Tensors

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Abstract:--

The existing face resolution techniques produces images with higher resolution from low resolution face images of a single modality. Single modality of facial images may be low resolution images of a fixed expression, fixed pose and a particular illumination. The technique presented here is hallucinating high resolution facial images over various modalities, i.e., with diverse facial expressions, poses and illumination conditions. This work addresses the following issues of the facial images taking various combinations of persons and expressions.

1. For a person with a single expression, is it possible to develop his other different expressions?
2. For a person with a single expression, is it possible to generate the same expression for different persons?
3. Given a facial image of low resolution, is it possible to recognize the person?

To achieve the above issues, the work is concentrated on registering the unregistered raw images using an automatic face alignment algorithm and on developing a generalized tensor. The tensors are decomposed using HOSVD and finally synthesized to high or super resolution by Interpolation.

This novel technique not only shows enhanced and superior performance over existing super resolution techniques but shows robustness in coping with hallucination of multi modal images under different practical conditions.

Keywords

HOSVD, Automatic face alignment algorithm, tensors

The Rise of Indian English and the Renaissance in Modern Indian Literature

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Abstract:--

This article is about The Rise of Indian English and The Renaissance in Modern Indian Literature. This also brings in to light how the Indian Novel in English came into existence during the British rule in India. The History of English Language and literature in India started with advent of East India company in India.Inorder to overcome the problem of communication in an alien land, The Britishers pleaded for the adoption of the English Language. In the long uneasy, and interminable task of making English as an Indian language, Mohandas Karamchand Gandhi and Jawaharlal Nehru were the central figures.

Keywords

Key words: Advent, Alien land, Interminable, Evaluation, Pleaded, Existence

Adenomatous Hyperplasia of Thyroid Nodule Classification Using Texture Feature Analysis on Ultrasound Images

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Dr. G. Sankara Malliga, Professor and Head, Department of Electronics and Communication Engineering, Anand Institute of higher technology, Chennai, India

Abstract:--

In this work, an attempt is made to extract textural feature from ultrasound Adenomatous Hyperplasia thyroid nodule. The extracted texture feature shall aid clinician to improve diagnostic accuracy. The Fine Needle Aspiration (FNA) and Histopathology report is the conventional diagnostic procedure. It is an invasive technique and patients are subjected to painful process. Non-invasive, non-contact and low cost imaging tool is essential to increase the clinical diagnostic accuracy. Ultrasound imaging is a potential noninvasive modality to capture Adenomatous Hyperplasia thyroid nodule. It is the common inflammation in thyroid gland abnormality. The texture features, using Law's Texture Energy Measures (Law's TEM), Neighborhood Gray Tone Difference Matrix (NGTDM) and Statistical Feature Matrix (SFM) are extracted from normal and adenomatous hyperplasia of thyroid nodules. The normal and abnormal images are demarcated using T-test analysis. The result shows, Law's Texture Energy based feature differentiated normal and abnormal images. The extracted feature shows significant difference between normal and abnormal images with p value less than 0.001($p < 0.001$). Hence the Law's Texture Energy based feature shall be used to identify the pathology in the thyroid ultrasound images.

Keywords:—

Adenomatous Hyperplasia of thyroid , Texture analysis, T-test, Law's Texture Energy Measures, NGTDM, Statistical Feature Matrix texture analysis.

Automatic Detection of Fake Profiles in Online Social Network

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Abstract:--

In the present generation, the social life of everyone has become associated with the online social networks (OSN) like Facebook, Twitter etc. These sites have made a drastic change in the way we pursue our social life. Making friends and keeping in contact with them and their updates has become easier. But with the rapid growth in their membership profiles, many problems like fake profiles, online impersonation have also grown. It is almost impossible to examine such huge profiles manually to control these problems. In literature, there are no feasible solution exist to control these problems automatically. In this paper, we propose a framework for automatic detection of fake profiles by the OSNs. This framework will use classification techniques like Support Vector Machine, Nave Bayes Probabilistic and Decision trees approach to best classify the profiles into fake or genuine classes. The simulation results prove the efficiency of the proposed framework.

Implementation of 6 degrees of freedom movement on a Gantry loader crane with 6 different motion points

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Abstract:--

This research paper deals with the new design concept that would incorporate pseudo 6 degrees of freedom movement on a loader gantry crane used in construction sites and on CNC machining bodies used in manufacturing processes.

The research would take into consideration the concept of parallel manipulator described through Stewart platform and cooperative crane manipulator. The scope of this research is not restricted to a parallel manipulator.

The design creation would try to incorporate new techniques in a cooperative crane manipulators.

The research's objective would be to design a crane or a transporting body that can ease up the job of movement in manufacturing and construction equipment.

The motion of joints and arms consists of three translatory motion on three axis. Three rotary / circulatory motions in three planes.

The research also considers the various possibilities and techniques that can be combined to produce new level of ease in achieving 6 degree of movement.

The primary focus of research is to de-clutter the joints and distribute the motion on separate joints so that the machinery or the equipment provides 6 degree of freedom movement on complete machinery with ease of working.

Implementation of ARP Spoofing for IOT Devices Using Cryptography AES and ECDSA algorithms

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Dr. R.Santhi, Research Supervisor, Bharathiar University, Coimbatore.

Abstract:--

The Internet of Things is the network of numerous devices and communicate with an internet by using the IP address. The IOT objects shares the information using wireless connection. During the data transmission, that can be distorted by the Hackers by knowing their IP address. In IOT (Internet of Things), the wireless communication between the devices makes the users to be vulnerable. So, the hackers may spoof the MAC address of the communicating devices. The receiver MAC address is identified and then false MAC (Media Access Control) address is created by the hacker. Then, attackers replaces the original MAC address in the ARP (Address Resolution Protocol) table of the sender. So,the hackers may impersonate like the sender. Therefore, Cryptographic algorithms like AES (Advanced Encryption Standard) for confidentiality and ECDSA (Elliptic Curve Digital Signature Algorithm) for Authentication are applied in the proposed algorithm to safeguard the data as well as the devices from the hackers. The following attacks such as Man-in-the-Middle, Denial -of -Service (DOS) and ARP spoofing are strongly prevented in the proposed algorithm. Thus, the implementation of an algorithm is carried out in Ubuntu Linux environment with installing Python dependencies. This algorithm affords an efficient way to thwart ARP (Address Resolution Protocol) spoofing by the hackers for IOT devices.

Keywords

AES, ARP, DOS, ECDSA ,IOT and Man in the Middle Attack.

Implementation of Automatic Gate Control for Railroad Switch and Anti-Collision System using Arduino

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Abstract:--

India one of the most train transportation adaptable country. Most of accidents occur at while crossing, due to manual operation or negligence of people. Train accidents are going on based on railway gate controlling, track switching system, collision system and protocols using for communication. Head-on collisions are the most problematic issues because of manual switching process and collision on railway tracks. The accidents results to significant property damage of organizations, financial losses and individual's losses. Every individual life is very important. This paper presents an Implementation of Automatic Gate Control for Railroad Switch and Anti-Collision System using Arduino; it majorly avoids accidents while crossing and provides switching techniques for railroad. Anti-collision systems sense the obstacles present on track within a specific distance and immediately alert the pilot which avoids the train accidents.

Keywords

Global Positioning System [GPS], Liquid Crystal Display [LCD], Infrared sensor [IR], Ultrasonic sensor [UV], Radio Frequency Identification [RFID].

Review of Literature on Firm Based Triggers of Customer Dissatisfaction in Consumer Goods Industry

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Abstract:--

The current academic research on consumer complaint behavior in Indian consumer goods markets revolves around multiple dimensions yet operationalization of role of firms is still lacking academic attention. The academic literature on firm based "triggers" of dissatisfaction and complaining attitude, seem to sideline the crucial role of producer and often remains under explored and ignored in Indian perspective. Hence the paper explores the "problem" as multi-dimensional and addresses all related dimensions. This research paper seeks to bring together the diverse literature, ideas and opinions into one framework. The paper further explores the available literature from the view point of firm and sums up the ideas from the existing literature.

Keywords-

Firm based triggers, firm behavior, consumer goods

Internet of Things Enabled Inclusive Business Model for Indian Agriculture

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Dr.B.Venkateswara Prasad, Associate Professor, Department of Management Studies, Sri Sai Ram Engineering College

Abstract:--

Indian agriculture need to be revamped due to its low productivity. Indian farmers mostly involved in age-old manual agricultural practices and irrigation systems. farming is highly unorganized and fragmented and the productivity is low, Government subsidies and other support are not sufficient to fulfill the gap. Corporates with their strong financial background can formulate a model with the government support to use smart agricultural devices and its integration with information technology. This paper presents the conceptual model to support the farmers in their agricultural practices to provide better livelihood.

Keywords:--

Productivity, Unorganized, Fragmented, Smart agricultural devices, Information technology.

Design as a tool to reduce energy loss due to heat gain in Hospitals in India: An Approach to Sustainability

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Abstract:--

India is the world's second most populated country in the world with a population of 1.32 billion. It is projected to surpass China (largest population) reaching 1.7 billion by 2050. There is a shortage of 2 million hospital beds in India at present. Roughly 100,000 hospital beds have been added annually over the last decade and if India continues to maintain this rate, it will fall short of target by 1.6 million beds by 2034.

This paper focuses on using design as a tool to reduce energy loss in hospitals in India. Hospital buildings are major energy consumers because of their high demand of heating and cooling for controlled medical parameters and round the clock functioning. In light of present demand and growth of healthcare facilities in India, it is important to understand the energy load on the present infrastructure that will be enhanced manifold in future. None-the-less it maybe understood that huge energy loss is faced by major hospital buildings through uninsulated lengthy conduits and service pipelines responsible for heating and cooling facilities in a hospital. These are installed on the rooftops of major buildings and are responsible for extra load on the heating and cooling systems due to additional heat gain during 75-80% of the yearas Indian climate is primarily hot.

This paper intends to include Energy Efficiency as a major role player in the planning and design stage of a hospital project. Adding further to the existing guidelines the following approach to design and planning maybe explored

1.Segregation and Zoning of building components/ departments as per their energy need and controlled medical environments.

2.Patient centric hospitals focus on therapeutic healing environments. India has defined diverse climatic zones across the country. Adopting design interventions to incorporate active and passive heating and cooling techniques may help in reducing energy consumption.

3.As major population of India resides in rural areas (68.84%), a part of design component may segregate energy demands based on comfort indicators for different regions like physical adaptabilities to heat and cold, socio-economic base, cultural adaptability and regional lifestyles etc.

The suggested approach in the paper may help in significantly reducing energy consumption in these 24X7 running Buildings.

Keywords:

Energy Efficiency, Hospital Design, Sustainability.

Performance Analysis of Distributed Real time optimization technique for optimal power flow problems

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Abstract:--

For conventional electric power system, penetration of high level of distributed generation is new challenge. Distributed energy resources produces on-site electricity, by which it reduces the requirement of new transmission line set up and also provides reduction of line losses. In earlier days, centralized optimization approaches have been the primary way of optimization of power system. In centralized approach of optimization, optimal power flow operation is performed by collecting information at central controller. But because of increase of size of power system and increase of flexibility of distributed resources from demand side various problem arises in computation and communication in centralized approach. Optimal power flow plays a vital role in planning and scheduling of generation of power. As the majority of renewable energy resources are located at the distribution grid. So for handling the uncertainties involved in renewable energy resources, load demands etc. there is a need of development of distributed algorithm for AC-optimal power flow problems. This paper realizes in optimal power flow real time optimization and for tracking of time varying OPF problem and for numerical optimization method different quasi Newton methods are used. For time varying loads we need an algorithm that can track time varying load on faster time scale. So, to address these challenges various approaches or techniques are presented.

Analysis of Coding Efficiency for Implementation of Serial Port Data Communication Using Modbus Protocol

Sudipta Acharjee, Guru Nanak Dev Institute Of Technology
Saptarshi Naskar, Guru Nanak Dev Institute Of Technology

Abstract:--

Serial communication is the process of sending data sequentially one bit at a time, over a communication channel or computer bus. RS-232 is a standard for serial binary data transfer between a data terminal equipment (DTE) and a data circuit-terminating equipment (DCE), commonly used in computer serial ports. Primary aim of the work is the mapping of the magnetic field within a magnet (Magnet having the hollow cylindrical shape). In this scheme, one computer as Master terminal and another as Slave terminal are taken for communication.

Keywords:

RS-232, DTE, DCE, Modbus Protocol.

Parameter Tuning of a Sampling Technique for Change Prediction

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Dr. Abha Jain, Department of Computer Science, Shaheed Rajguru College of Applied Sciences for Women, University of Delhi, India

Abstract:--

Change prediction is very essential for producing good quality software. It leads to saving of lots of resources in terms of money, manpower and time. Predicting the classes during early phases can be done with the help of model construction using machine learning techniques. Every technique requires approximately equal distribution of classes (balanced data) for an efficient prediction. In other words, for a binary classification problem, the number of classes/instances belonging to both the types categories should be approximately equal. In this study, we have used a sampling approach to balance the data. We observed the improvement in accuracy after the models are trained on the balanced data. In addition to this, we have also tuned the parameters of the sampling approach and evaluated the models again. The accuracy of the models show the further improvement after the parameters are adjusted/tuned. Thus, the overall results show the improvement in accuracy after sampling and parameter tuning.

Design and Implementation of Smart System for Interaction between Blind, Deaf and Mute People

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Abstract:--

Difficulties faced by the deaf and dumb people and the blind people to communicate among themselves is the major motivation for the proposal of this project. The project aims at bridging this communication gap by means of an cost-effective electronic device. This is done by using a prototype hand worn glove which converts hand gestures and Braille codes into speech and text, thus enabling speech-impaired and visually impaired people to effectively communicate with everyone. MEMS sensors are used to recognize the gesture sign given by the deaf and dumb people. The gesture input is sent as an audio file which is understandable to the people. The input given by the blind people is in Braille language which is converted to text using scale-invariant feature transform (SIFT) algorithm and decoded to text and voice output through Artificial Neural Networks (ANN) by means of Back Propagation using Supervised Learning. So this ensures two way communication between blind, deaf and dumb people.

Key Words: -

Glove, MEMS, SIFT, ANN, Back propagation, Supervised Learning.

Strategic Quality Management – An Annotated Review

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Abstract:--

Quality has always been of paramount importance. However, it took centre stage in the decade of 1980s when companies like Xerox performed spectacularly well by engaging in strategic quality management. The concept of quality management has taken up many forms beginning from quality by inspection , to quality control , to quality assurance , total quality management or strategic quality management (Tummala & Tang, 1996). The previous review papers on the evolution of quality management have focussed mainly on the key elements, concepts or types of studies conducted in relation to quality assurance and total quality management. The present study is concerned with review of literature related to concept of strategic quality management. The main focus is identify the type of studies conducted in the field of strategic quality management.

Keywords:

Strategic Quality Management, Annotated Review.

Optimization of Process Parameter in Precision Turning On Hytech CNC Lathe by Using Taugchi Method: A Review

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Sajid Khan, Assistant Professor, Dept. of Mechanical Engineering, DITMR Faridabad, India.

Abstract:--

The machining processes is commonly used by manufacturing industries in order to produce precision component and very intricate products in a short time. The selection of the process parameter for optimizing and evaluate the results in machining operation is a very difficult task so here we select the some important parameter for optimizing the results and improve the efficiency. The process parameter are namely surface roughness, tolerance and cutting parameter like as cutting speed and dept of cut and feed rate and other parameter on Hytech CNC lathe machine which is to be taken for the study. This present work is carried out on turning process parameter on Hyper CNC lathe by using Taguchi method. The main objective of the present paper is to build a model to facilitate optimization problems in manufacturing processes. Due to improvement in the machining processes, a special concentration has been given on the life of a tool. To achieve that, the best way is to coat the tool with PVD and CVD techniques. By doing so an optimized machining condition under coated tool can be obtained to improvise the output parameters like tool life, surface finish etc. This paper provides literature review on machining parameters, such as cutting speed (Vc), feed (f) and depth of cut (t), and surface roughness and close tolerances of different material. This paper reviews the optimization of cutting parameters for surface roughness in the turning process. Surface roughness is one of the most commonly used criteria to determine quality and smoothness, tolerances of a turned surface. Taguchi method is a powerful tool to design optimization for quality. It is used to find the optimal cutting parameters such as cutting speed, feed rate, depth of cut and nose radius as the overall cost can be reduced. This paper gives some background of optimization technique applied to various turning processes for improving surface roughness.

Index Terms: -

Turning Operation, Surface Roughness, The Taguchi Approach, Taguchi Loss Function, Speed, Feed and Depth of Cut, Optimization.

Engineering Education with Soft Skills & Innovations: A way of Transformation towards Progressive Professional Career

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Bikram Pal Singh, Saraswati College of Management & Technology

Abstract:--

In today time of high technology and innovations in the field of engineering only hard skills don't serve rather soft skills like communication skills, leadership skills, team work, patience, adaptability etc. are also required to get a good job, to remain stable in the job and to get ahead in the career. Without soft skills the survival is not possible. This paper mainly discusses the role of soft skills in making engineering career. Apart from this we have discussed the role of soft skills in Mechanical Engineering, Manufacturing Engineering, Civil Engineering and Software Engineering. Lastly some suggestions have also been given in the last of the paper that will help in overcoming the obstacles that come in the way of soft skills. This paper is mainly based on secondary data collected from various research papers, articles, websites and magazines. However some primary data has also been discussed in this paper. The primary data has been collected with the help of face to face interviews and telephonic interactions done with some learned persons especially engineers.

Key Words: -

Career, Communication Skills, Engineers, Leadership, Soft Skills, Team Work.

Inculsion behaviour of Organic Probe inside Micellar Nano Cavity in Polymer Phase

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Abstract:--

Organic salt pyrrole-2 carboxaldehyde (PCL) was entrapped using polymer micellar system likeSodium dodecyl sulphate, (anionic surfactant), Polysorbate-80(non-ionic surfactant) along with polymers like polyethylene oxide (PEO). Synthesized and characterized using UV-Vis , FTIR, and fluorescence. The influencing factor in the determination of all the characterization was to check wheather polymer is able to hold the micelle formation occurring between the salt and surfactants used without interacting with them.

Artificial Intelligence Techniques to Fulfill Consumer Power Demand in Smart Grid

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Manjula R B, Associate Professor, REVA University

Abstract:--

Consumers power demand, usages of electrical appliances and electronic gadgets has increased tremendously in the last few years. In general, the power grid system is over stressed and more utilized due to high usage of the electrical appliances and goods. The present electrical system could not withstand the increase in demand and it is very old to deal by active consumer awareness and participation. In addition to that, service providers are introduced various pricing strategy, incentives and other attractive methods to maintain the power grid in stable condition. This article deals to manage the consumers demand and supply under control during the peak periods in a day and effectively reducing the energy usage bill.

Index Terms

Artificial Intelligence, Neural Network, Smart Grid .

Multi-Document Abstractive Text Summarization through Semantic Similarity Matrix for Telugu Language

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Dr.Y Madhavee Latha, Prof,Malla Reddy Engineering College for Women, Telangana, India.

Abstract:--

Telugu is one of the popular south Indian languages which is currently spoken by 84 million population in Telangana and Andhra Pradesh. Text summarization is an area of research with a goal to provide short text from huge text documents. Extractive text summarization methods have been extensively studied by many researchers. There are various type of multi document ranging from different formats to domains and topic specific. With the application of neural networks for text generation, interest for research in abstractive text summarization has increased significantly. This approach has been attempted for Telugu language in this article. Recurrent neural networks are a subtype of recursive neural networks which try to predict the next sequence based on the current state and considering the information from previous states. The use of neural networks allows generation of summaries for long text sentences as well. The work implements semantic based filtering using a similarity matrix while keeping all stop-words. The similarity is calculated using semantic concepts and Jiang Similarity and making use of a Recurrent Neural Network (RNN) with an attention mechanism to generate summary. ROUGE score is used for measuring the performance of the applied method on Telugu Language.

Keywords

Abstractive Text Summarization, Multi-document, Text Generation, Semantic Role Labeling, Semantic Similarity Matrix, Semantic Selection, ROUGE, Summary Generation

Parameters impacting the security of the Blockchain network

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Abstract:--

Few people in the blockchain industry have marked the blockchain has become over popular but in reality the technology has limitations and also is inappropriate for many digital communications. Blockchain requires a large network of users to maintain it's ecosystem, however It becomes more difficult to reap the full benefit if a blockchain is not a robust network with a widely distributed grid of nodes. The blockchain can only executes about seven transactions per second. The biggest security flaw in blockchains is if more than half of the computers executing as nodes to instruct and service the network tell a lie, the lie will become the truth in just a blink of eye. This is marked as '51% attack' and was highlighted by Satoshi Nakamoto when he inaugurated the bitcoin. This is the reason the bitcoin mining pools are monitored closely by the community and ensuring no one unknowingly gains such network influence. Politics has been a biggest restriction in the avoidance of blockchain as the protocols offer an opportunity to digitize governance models, and the miners are essentially forming another type of incentivised governance model, so there have been tremendous opportunities for public disagreements between different community sectors.

Effect of Shape of Magnet on the Machining of Work piece

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Q. Murtaza, Professor Delhi Technological University New Delhi.
A.K Aggarwal, Professor Delhi Technological University New Delhi.

Abstract:--

Viscoelastic Magnetic Abrasive finishing has achieved a wide popularity in the field of finishing as the process is capable of finishing Non-ferrous material along with the ferrous material. With the development in technology the quality and surface finish attract more attention as compare to the machining perfection and dimensional accuracy. The present paper consists of comparison of four type of magnet available in the market and one of them as self-proposed electromagnet. A single aluminium hollow cylindrical workpiece of outer diameter as 10 mm and the inner diameter as 8 mm is finished by taking the magnet one by one whose dimensions are made according to the available literature and market and are placed as two magnetic poles with 180 degrees apparats. Ansys Maxwell 16 software was used to predict the value of maximum magnetic field on the workpiece due to the shape of the magnet and it was found that the maximum magnetic field was produced by fan shape magnet of about 0.6 Tesla. From the idea of magnetic field intensity of the workpiece, the machining ability of the magnet in viscoelastic magnetic field can be produced.

Keywords:

Viscoelastic Magnetic Abrasive finishing, Finishing, Electromagnet.

Strategies based on Semantics and Pragmatics: Dealing with Text Completion Questions and Sentence Equivalence Questions in GRE

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Abstract:--

Pervasively, testing in English proficiency is mandated for entry level jobs. Internationally acclaimed tests like GRE and SAT have Text Completion and Sentence Equivalence Questions to test the aspirants' response on a given text. A verbal trainer combines logical analyses and vocabulary teaching. Semantics and pragmatics become pertinent to a prospective verbal trainer as certain concepts in semantics and pragmatics cause a bilateral stretch for instruction in logic and language.

Index Terms

GRE, Text Completion Question, Sentence Equivalence Question.

Balancing of Cloud Services Capacity Using Optimization Techniques in Matlab Simulation Tool

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Laveena Sehgal, Asst. Professor (CSE Deptt.), Rayat & Bahara University, Mohali, India

Abstract:--

Cloud computing is the latest technique needful for storage of the important data accessible simultaneously globally by the multiple users using the network structure. The cloud contains different types of services such as Iaas, PaaS and SaaS. The cloud computing's aspect to provide these real time services with highly accuracy and less downtime. The server's services are get in deadlocks due to providing of the services to the multiple users with different services offerings. The load balancing techniques has been invented for provide the services on time. We have been proposed the round-Robin algorithm for manage the loads by assigning the priority to the request services. The priority has been assigned to the services which needs less time to release the resources with similarly to other approaches. The practical work will be implemented in the MATLAB Simulation tool using MATLAB 10b version. The Results will be computed based on the algorithm designed with parameters and likely to give the best results as per the research.

Key words:

Load Balancing, Cloud Computing, Server, IaaS,SaaS,PaaS.

An Practical Approach of Ant Colony Optimization Based Detection of Image Boundaries Using Matlab Simulation

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Abstract:--

Image Processing is the wide domain consist of different types of techniques such as Image Segmentation, image resolution enhancements, pixel based Image Editors but detection of the images Boundaries known as Image's Edge is the broad area. The captured images contains the noises and difficult to analyze the images pixel accurately. The Ant Colony Optimization (ACO) is the approximation algorithm which works on basis of probability and extract the pixels different where the intensity values get changed on due to lighting effect or pixel ratios. We have been proposed the algorithm for identify the Images Values based on the Pixel Matrix to generate the identify the image accurately. The concept is based upon the ants in which ants get move in all directions with following the shortest path and to remove the values that are not the accurate path. We have been generated the flow charts, reviewed the MATLAB Working that might generate the results with Accuracy and some of the performance parameters also specified such as PSNR (Peak Signal to Noise Ratio) with graphically representation.

Key-words:

ACO-Ant Colony Optimization, Image Processing, Computer Vision, PSNR.

Keyless Signature Infrastructure for Digital India's Security

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Abstract:--

In the making of new Digital India there are lots of threats which are there in the path of this dream. Acts of data breach of AADHAAR and Bank Accounts due to the lack of security in our digital services are common but the world is now, moving towards digital era so to be with the world in this digital transformation we must work on our security enhancement to provide a secure platform to government organisations. To serve the three aspects of security that is confidentiality, integrity, and availability of data we need a infrastructure that ensures all these. The Blockchain-Based KSI is the new technology which will support the government of India to achieve its goal of ensuring secure digital Services. It will help the government in providing strong authentication through digital signatures, and will also give the citizens a trust that their PII data is secure and confidential so that they can use these digital services for their all daily work. On the inspiration from Estonia where all their government services are digital in a way such that every government work from issuing a birth certificate to passport verification all these tasks are done digitally. This paper is made to help India in the implementation of this powerful Infrastructure for the digital governmental services providing ease to people and bureaucrats.

Index Terms

Keyless Signature Infrastructure, Aadhaar, Blockchain and Personally identifiable information

Importance of Natural Language Processing, Its Features, Components and Applications

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Abstract:--

The paper context is about Natural language processing, why NLP is Important? It's the science that deals with human to machine communications, advanced and powerful algorithms. It has wide area of applications in different areas Education, Automotive, virtual assistant, Healthcare, customer support with speech to text conversions, Machine Translations, Grammar checking, Text classification and categorization, Question Answering etc. This works with its different components like Natural language Understanding and Natural Language Generation.

Keywords:

Natural Language Processing, Applications of NLP, NLU, NLG

Classified and Misclassified Data in Soft Set Environment

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Abstract:--

To manage characterization for huge information, information or data filtering and cleansing are preferred as preprocessing steps. For the most part it evacuate noisy, errors and conflicted data and results misclassification. In this paper, we performed examination of misclassified data and recognize how much information is should be redressed to get important data. To exhibit this idea, we have utilized AirTrafficDataset from Statistical Computing Statistical Graphics to analyze misclassified content in informational index. Two directed classifiers are used: Support vector Machine and decision tree. The results shows that out of these classifiers, SVM classify 85% of the data correctly and only 15% of data has misclassification.

Keywords:

Classification, Machine Learning, soft set, Misclassification

Enhancing Public Speaking Skills among B.Tech Students Using JAM Sessions: A practical Study

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Abstract:--

There is a dire need of enhancing public speaking skills among all the students in general and B.Tech students in particular consent to the study and advances of multidimensional learning tools. It creates a kind opportunity for the learners to practice and improve their PSS. The present study examines a potential learning situation of the select students of B.Tech by using the application of Just A Minute (JAM) session as a tool in the development of their PSS. It needs from the speaker a coherent use of their verbal and non verbal expressions. Timely depth with adequate exactness is always a challenging. However, for the last a few decades, PSS have been undertaken to support individual performance at various placements. First the application and studies exhibit the capable observed results in the various sessions organised in a systematic manner. This paper titled: "Enhancing Public Speaking Skills among B.Tech Students Using JAM Sessions: A practical Study" explores the use of JAM in learning application with real public task in the session. The results of this study facilitate to understand the challenges and implication of testing the system in a Practical Setting. It also shows the authentic collision compared to the use of such practical sessions in enhancing PSS.

Paper on the Effect of Copper on Austempering Behavior of Ductile Iron: A Review

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Abstract:--

Even since its discovery in 1948, the use of ductile iron is increasing continuously; this is due to the combination of its various excellent mechanical properties. Large amount of research is being carried out to develop even better properties. Austempererd ductile iron is the most recent development in the area of ductile iron or S.G. iron. This is produced by an isothermal heat treatment of the ductile iron. The formed austempered ductile iron is now replacing steel in many fields so it has becoming very important to various aspects of this material. In this work the effect of copper along with the process changes the properties and microstructure of ductile iron is studied. With changing austempering time hardness, tensile strength and elongation are changes but with increasing austempering temperature hardness and tensile strength are decreasing and elongation increasing. Austempered ductile iron with copper is very hard and lower elongation than the austempered ductile iron without copper. In microstructure ferrite is change with change austempering time and austenite is increasing with increasing austempering temperature in both the grades.

Key words:-

Production of ductile iron by the austempering process and shows the important effect when copper is added on it.

A Review Paper Based on the Investigation of Catalytic Fuel Reformer for Diesel Engine

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Abstract:--

Diminishing of fossil fuel sources, steep rise in fuel price, growing of demand and environmental hazards shove the worldwide researcher's to seek the possible alternative fuels for internal combustion engines. It is necessary to reduce consumption of the fossil fuel due to negative effects on environment. Particularly search of suitable alternative fuel for compression ignition engine is very important because of their wide application. Therefore scientist and researchers all over the world working hard to utilize the new technologies that allowed the re-cyclic and reuse of the waste material as a source of energy.

In this research work, a catalytic fuel reformer is designed and fabricated with suitable size. The waste engine oil is selected as an alternate fuel for the compression ignition engine. Cracking the waste engine oil in the catalytic fuel reformer, the catalyst such as alumina, fly ash, red mud and zeolite 4A are selected. The waste engine oil has to be cracked with each catalyst individually.

Keywords

Diesel engine, reformers and catalysts

A Review Paper on Helical Gear on Fem and AGMA Standard for Computation and Comparative Study of Stress Induced on Gears

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Abstract:--

Gears are one of the most critical components in mechanical power transmission systems. The bending and surface strength of the gear tooth are considered to be one of the main contributors for the failure of the gear in a gear set. Thus, analysis of stresses has become popular as an area of research on gears to minimize or to reduce the failures and for optimal design of gears. This thesis investigates the characteristics of involutes helical gear system mainly focused on bending and contact stresses using analytical and finite element analysis.

To estimate the bending stress, three-dimensional solid models for different number of teeth are generated by Pro/Engineer that is a powerful and modern solid modeling software and the numerical solution is done by ANSYS, which is a finite element analysis package. The analytical investigation is based on Lewis stress formula.

Key Words:--

ANSYS, AGMA standard for computation

Implementing the open-source Koha ILS - The Panjab University, Ankur School Experience

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Abstract:--

The traditional methods of managing libraries are no longer dynamic and efficient. For quick retrieval and dissemination of information and better service for the patrons, application of modern techniques has become essential. A fully computerized library will help its users with quick and prompt services. Automation process helps to restructure library functions and reinvents its services. The motive of this study is to explain how the author successfully carried out the implementation of the Koha open source integrated library system (ILS) at The Panjab University, Ankur School Experience. This study broadly illustrates the requirements for implementing the Koha-ILS and how it can be successfully succeeded even with limited funding and staff crunch. This paper is based on experiences and facts collected before and during the implementation phase. It elaborates the basics and suggests steps toward successful implementation of ILS. This study is aimed to motivate and help the libraries and serve as a stepping stone that is in dare need to implement KOHA Library automation software.

Honey Adulteration Detector

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Abstract:--

Adulteration of pure honey with synthetic honey has become much more prevalent in recent years. The consumer is often faced with worthless substitutes but sometimes also with a dangerous cocktail of chemical such as antibiotics, coloring etc. Being a substance of medicinal importance, adulteration can make it severely harmful to consume. So with the help of this paper we propose a solution which gives power to the consumer as well as the food industrialists to differentiate between healthy and adulterated honey. Our approach for the same is to develop an IoT-based device which comprises of a micro-controller, sensors and a Wi-Fi module to detect the change in properties of honey due to adulteration. The device declares the result on the basis of change in color, pH, density and electrical conductivity. The results of tests performed by the consumers would be stored in a database that can be accessed via a webapp which can help to compare the quality of honey present in the market. The simplicity of the system can help food inspectors, medical institutes, food industries as well as the common people to prevent the side effects of the low quality honey.

Keywords:

Internet of Things, Honey Adulteration Detector, Food Adulteration

The relationship between Entrepreneurial Orientation and the Performance of MSMEs (Micro, Small and Medium Enterprises): An Analysis of Manufacturing and Service Firms in India

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Abstract:--
Purpose of study
The current study is aimed at trying to uphold the past literature which states that increased entrepreneurial orientation has a positive impact on the performance of MSMEs. Preliminary statistical review indicated that the performance potential of the MSMEs has not been met in India. A review of the literature further indicated that one of the ways by which MSMEs can increase their performance was by increasing their entrepreneurial orientation. However, not much study has been done in India to see the relationship between entrepreneurial orientation and firm performance of MSMEs. The current study is planned to fill this gap via studying the relationship between entrepreneurial orientation and the performance of Indian MSMEs.
Research Implications
There were three main findings of the study. First, results of the study indicated that entrepreneurial orientation has a positive effect on business performance. Second, beta values indicated that the entrepreneurial orientation-performance relationship is stronger for service firms than in manufacturing firms. Third, for both Manufacturing and Service Firms, the strength of relationship is quite high indicating that Indian MSMEs are understanding the importance of entrepreneurial orientation and its implementation.

Keywords
Entrepreneurial orientation, Firm performance, Micro, Small and Medium Enterprises

Treatment of Heavy Metals and Impurities from Waste Water by Nanoparticals: A Review

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Abstract:--

Safe drinking water is considered a most important factor of a country's development and according to recent reports, about 663 million people around the world do not have access to safe drinking water [1]. Safety of drinking water is judged by national standards or international guidelines with WHO guidelines for drinking water quality and it is implemented by many developing countries [2]. Reports shows that over a billion of the estimated 6.2 billion people relying on improved water sources continue to use unsafe water [3].The treatment of drinking water with regard to public water supplies generally consists of a series of barriers in a treatment of water that generally varies according to the requirements of the supply and the availability of the water resources [4].However, groundwater acts a vital role for several naturally occurring and anthropogenic ions such as fluoride, arsenic, lead, chromium, nitrate, selenium, chloride, heavy metals and as well as radioactive materials which greatly affect the groundwater quality leading to health problems[5]. Besides inorganic pollutants, industrial waste water also contains organic pollutants which have to be treated before the water can be discharged. Biological treatment is the most economic process and is usually used for treatment of "readily degradable" organic pollutants present in the waste water. The situation is completely different when the waste water contains toxic or and refractory organic pollutants. In this case, another type of treatment must be used. The electrochemical method for the treatment of waste water containing organic pollutants has attracted a great deal of attention recently [6-8].So in the present review various techniques and methods for the sustainability and purification of water by the nanoparticals have been studied.

Design and Performance Evaluation of Gate-All-Around Nanowire FET at Sub-7nm Technology Node

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Abstract:--

In the Electronics world, there is a need of more and more scaling of semiconductor devices to march at the tempo of Moore's law so that we face less and less problems in making devices with shrunken dimensions at Nano scale. It has been found in the published literature that the GAA Nanowire FET shows favorable results as compared to the FinFET structure at the technology node beyond 10 nm. In today's time FinFET is assumed to be the Industry Standard Semiconductor technology for making an Electronics Product. Therefore, in this work, a TCAD study of the device GAA Nanowire FET at sub-7 nm technology node is carried out. The design and investigation of the influences of varying channel length in ultra –short nanometer regime on drain current is studied. And then we further investigate and analyze the variability in the performance trends of the device GAA NWFET at ultra-low power Drain voltage (Vds=0.05 V) by keeping the channel length, channel height and channel width constant at 5 nm scale and by varying the Channel doping concentrations, Gate Oxide thickness, Gate Oxide material and use of high–k dielectric materials in Spacer region. Further investigation of the influence of ultra-nanowire channel radius less than or equal to 3nm on device conductivity.

Keywords

GAANWFET, Silicon Nanowires, Channel length, Oxide thickness, Spacer material

Rain Water Flood Control

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Abstract:--

When it rains, the rainwater gets everywhere on the rooftops on the road and in the fields in the gardens, and that large amount of water slowly comes into the rivers through a drain and the water level of the rivers rises. Due to which the chances of flooding are increased, there is a terrible consequence of the flood water, the collapse of trees, erosion of land, the collapse of houses, etc. is a dangerous way in which That people die and in the same way that the water that comes in the rivers goes near the dam and the water level of the dam rises and there is a very high amount of energy that we use in water energy It is said that if the gates of the dam are opened, then its water suddenly rises and due to this the problem like flooding spreads to the areas in the nearby village. Soak method has been created whose work will soak the water to the lower surface of the earth and solve the problem like flood.

Integrity Verification Mechanisms Adopted in Cloud Environment

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Abstract:--

Cloud computing has changed the shape of computing world. Now a-days users are not worried about the computational cost and infrastructure cost because of the maximum availability of all the resources are available on demand. The most widely used feature used by the users are storage as a service provided by the cloud computing. Users can upload and access the data anywhere anytime time with the help of internet access. As with the usability of the storage as a service, is increasing the risk of security of the information are also increasing. Data security on the cloud is the prominent area for researchers and number of techniques and algorithms has been proposed to assure the integrity, consistency and availability of data. In this paper a number of data auditing mechanism used by different cloud providers have been discussed and optimized integrity verification mechanism have been proposed to overcome the limitations of existing approaches. The communication overheads are compiled and calculated with different input data size. A comparative analysis is also prepared to justify the proposed approach.