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ICRAITSE – 17

INTERNATIONAL CONFERENCE ON RECENT ADVANCEMENTS IN INFORMATION TECHNOLOGY, SCIENCE & ENGINEERING

Thoothukudi, Tamil Nadu
14th & 15th December, 2017

Organized at:
A.P.C.Mahalaxmi College for Women
Ettayapuram Road, Thoothukudi.

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

RUDRA BHANU SATAPATHY.,

Director,
Institute for Engineering Research and Publication.

We are extremely glad to welcome researchers as well as scholars from academics and Industries to **"International Conference on Recent Advancements in Information Technology Science & Engineering"(ICRAITSE-17)** organized by A.P.C. Mahalaxmi College for Women, Thoothukudi, TN in association with Institute for Engineering Research and Publication (IFERP).Thoothukudi very often known as "Pearl City" has been a gateway of international trade to south India since 15th century. According to Confederation of Indian Industry, Thoothukudi has the second highest Human Development Index in Tamil Nadu next to Chennai. Hence it is a perfect destination to organize "International Conference on Recent Advancements in Information Technology Science & Engineering"(ICRAITSE-17) at A.P.C. Mahalaxmi College for Women, Thoothukudi.

Our continuous and dedicated effort to bring scientific and academic transformation in India makes us organize world Class scientific events and conferences at educational institute of our country. As Scalar waves (superpower) that travel faster than speed of Light can be generated by resonating our DNA with Pineal Gland, we believe integrated effort to organize international conference like **ICRAITSE-17** at a very short span will be a grand success. We are highly grateful to patron, convener, organizing committee and all the technical staffs of the host college for their swift, smooth and continuous response for execution of preconference propagation. We express our hearty gratitude to all IFERP members for their support and contribution to organize **ICRAITSE-17** at Muthu Kuzhithurai (Thoothukudi).

On behalf of entire team of IFERP I express my warm welcome to researchers, delegates and professional experts from nook and corner of India to bestow this conference by added value their scientific presentation. With gratefulness from core of my heart I appreciate the painstaking effort of our eminent keynote speakers to compromise their valuable schedule for **ICRAITSE-17.**

I believe attending scientific events makes us update with progressing technology and academic scopes **ICRAITSE-17** will support in scientific studies and incubation in Southern India.

Sincerely,

Rudra Bhanu Satapathy,

Preface

This book reports the Proceedings of the ***International Conference on Recent Advancements in Information Technology, Science and Engineering (ICRAITSE-17)*** held at ***A.P.C. Mahalaxmi Collge for Women – Thoothukudi*** on the 14 & 15 December – 2017, in association with ***Institute for Engineering Research and Publication (IFERP)*** .

A.P.C. Mahalaxmi Collge for Women is the brain child of the eminent scholar and philanthropist kulapathi A.P.C. Veerabahu, the Founder President. Since its inception it has scaled great heights in imparting quality education and has made it affordable to the economically and socially backward women of the vicinity. The objective of this Conference is to provide an International forum to discuss the recent developments in a wide variety of topics which include Information Technology, Science and Engineering.

The publishing department has accepted more than 303 abstracts. After an initial review of the submitted abstracts, 209 papers were presented at the conference and were accepted for publication in the Conference Proceedings. The topics that are covered in the conference include computer science and information technology, electronics and instrumentation, pure and applied physics, chemistry, mathematics and statistics, biological sciences, molecular biology and biotechnology, environmental science, chemical engineering, mechanical engineering, electrical engineering, civil engineering, and biomedical engineering. We would like to thank all the participants for their contributions to the conference and the proceedings.

Reviewing papers of the ***ICRAITSE-17*** was a challenging process that relies on the goodwill of those people involved in the field. We invited more than 15 researchers from related fields to review papers for the presentation and the publication in the ***ICRAITSE-17*** Conference Proceeding. We would like to thank all the reviewers for their time and effort in reviewing the documents.

Finally, we would like to thank all the proceeding team members who with much dedication have given their constant support and priceless time to bring out the proceedings in a grand and successful manner. I am sure this ***ICRAITSE-17*** proceeding will be a credit to a large group of people, and each one of us should be proud of its successful outcome…

ICRAITSE-17

President's Message

Hon. Shri. A. P. C. V.Chockalingam

The President
A.P.C.Mahalaxmi College for Women
Thoothukudi- 628 008
Tamil Nadu
India

It is a great pleasure for me to congratulate all the participants in the First **International Conference on Recent Advancements in Information Technology, Science and Engineering (ICRAITSE-17)** sponsored by **Institute for Engineering Research and Publication (IFERP)** organized at A.P.C.MahaLaxmi College for Women, Thoothukudi and to welcome the participants who have come here to exchange experience.

Science, Engineering and Information Technology plays vital role in the modern life , profoundly influencing the course of human civilization. All the great scientific discoveries and information technological achievements in our country have improved the Indian economic status and have created many new ways to the new generations to grow in the technologically advanced environment.

The main goal of the conference is to educate and motivate the participants to develop skill dynamics which must be the high priority of Indian technical education for the science, engineering and information technology development in our country in extraordinary manner. We will endeavour to provide the best through lectures, paper presentations and students activities which will be a part of this conference. International speakers and prominent figures in various technical fields have been invited for sharing their latest insights of academic and research in Science, Engineering and Information Technology.

I feel very much delighted to inform you that our First International Conference on ″ Recent Advancements In Information Technology, Science & Engineering″ will provide innovative outcome to face the emerging challenges in Science, Engineering & Information Technology. I Congratulate all the staff members of the Department of Computer Science who have been working hard for the success of the conference. My hearty congratulations to Prof. Shyamala Susan, H.O.D. of the department who enthusiastically took these efforts. I whole heartedly appreciate the sincere efforts of the entire team of this great event . I wish them all a grand success!

Shri. A. P. C. V.Chockalingam

Secretary's Message

Tmt.C.Subbulakshmi,

The Secretary,
A.P.C.Mahalaxmi College For Women,
Thoothukudi- 628 008
Tamil Nadu, India

It gives me immense pleasure to know that the Department of Computer Science of A.P.C.Mahalaxmi College for Women has taken up the great challenge of organizing an **International Conference on Recent Advancements in Information Technology, Science and Engineering (ICRAITSE-17)** in association with **Institute for Engineering Research and Publication (IFERP).** I congratulate the department for their maiden attempt for holding the conference and I am happy with the revered publication of articles.

The facets of Information Technology, Science and Engineering are changing very fast. Hence Science and Technology has to be infused with new variety to play a decisive and benefical role in advancing the well being of all sections of our society.The **ICRAITSE-17** will play a humble role in bringing together researchers, young scientists and students in an informal environment for discussing the latest advances in the field of Information Technology, Science and Engineering.

Visit of various researchers under the roof of A.P.C.Mahalaxmi College for Women is a matter of pride and immense pleasure to all of us. I hope that this volume which has been brought out by **ICRAITSE-17** will be of great academic value for common scholars and common readers. I convey my blessings and good wishes to all members of the **ICRAITSE-17** family, for their dedicated involvement in this great event .

Since its inception A.P.C.Mahalaxmi College for Women is moving towards the heights of education and serving the society with quality education. I hope the Management is blessed with such endeavours to happen in future too.

Tmt.C.Subbulakshmi

Principal's Message

Dr.R.C.Vasuki, M.A.,Ph.D.,D.G.T
Principal
A.P.C.Mahalaxmi College For Women
Ettayapuram Road
Thoothukudi - 628 002
Email: Principal@Apcmcollege.Ac.In

Information Technology, Science and Engineering has been the most encouraging research areas throughout the globe over the past two decades. For scientific discovery, health care, education, entertainment and environmental management, information technology is indispensable and will continue to fuel further advances in all facets of human endeavors. It is a great pleasure to have the International Conference on Recent Advancements in Information Technology, Science and Engineering in our campus. I congratulate the Department of Computer Science in association with **IFERP** for providing an international forum for researchers to show case their ongoing works.

"Every great achievement is the victory of a flaming heart." – Emerson

Indeed this conference is the efforts put in by the faculty of our College and it has received overwhelming response from academicians, scientists and engineers from various colleges and universities. This conference will surely prove to be a path breaking one in the computer field.

I am grateful to IFERP for being the Technical Co-sponsor of this conference and publish the papers presented in the conference proceedings. I would like to thank our President and Secretary who are always a constant source of inspiration, encouragement and support.

I thank all the contributors and experts for their co-operation and unconditional support in organizing the conference.

Finally I am thankful to one and all who have contributed directly or indirectly in making this event successful. With best wishes to the convener and the organizing committee members …

For , 'Team work divides the task and doubles the success '.

Dr.R.C.Vasuki

Convener's Message

Prof.V.Shyamala Susan, M.C.A., M.Phil., (Ph.D)
H.O.D. of Computer Science
A.P.C.Mahalaxmi College for Women
Ettayapuram Road
Thoothukudi - 628 002

This is the day the LORD has made – PS 118:24

On behalf of the organizing committee of **International Conference on Recent Advancements in Information Technology, Science and Engineering ICRAITSE -17**, I welcome you all. We take pride in organizing this conference in collaboration with the **Institute for Engineering Research and Publication (IFERP**) at A.P.C. Mahalaxmi College for Women - Tuticorin,

The main objective for organizing this conference is to provide a concrete platform which will encourage and support scholars, researchers and industrialists to carry and accomplish their research targets. In addition, this conference will also facilitate the participants to expose and share their various novel ideas.

We are honoured to have the eminent personalities for this special occasion. This exemplary exposure was possible with the help of the academic community. They carefully reviewed and accepted 207 papers out of 303 research papers. The technical program committee did an excellent job in ensuring acceptance of only quality work as part of the conference. All the accepted and registered papers were given a unique identification number and published in the scientific databases.

As a convener of the conference, I extend my sincere thanks to our President, Secretary and Principal for being our source of inspiration in organising this program. My sincere gratitude to **IFERP** for their sparkling efforts and their belief in the excellence of **ICRAITSE – 17**

I also specially thank all my colleagues and the Coordinator for their continuous support and tireless effort for successfully organizing this program. I am thankful to the sponsoring agencies for their generous support. I am sure that **IFERP** will continue to get generous support from various organizations in the future also. My heartfelt thanks to all the distinguished participants who have come from distant places to attend the conference. I earnestly request all the participants to make use of this wonderful opportunity and to derive the maximum benefits.

Outside the conference I hope that you will enjoy some of the attractions found in and around our beautiful campus. Such a great conference event is the culmination of the ideas contributed by many individuals.

'When you identify yourself with a cause larger than yourself, the energy and competence that are required for the fulfilment of the cause comes seeking you'

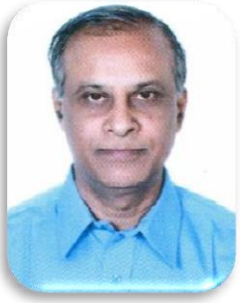
Once again, I welcome one and all to ICRAITSE-17

Prof.V.Shyamala Susan

ICRAITSE - 17

International Conference on Recent Advancements in Information Technology Science & Engineering

Keynote Speakers



Dr.B.K. VENKATARAMU.,
Prof. Sathish Dhawan Scientist,
Liquid Propulsion Systems Centre,
Indian Space Research Organisation,
Bangalore – 560008.

MESSAGE

I am very happy to know that ***IFERP*** along with ***A.P.C. Mahalaxmi College for Women*** is organizing an ***international conference on Recent Advancements in Information Technology, Science & Engineering (ICRAITSE-17)*** to be held at ***Thoothukudi, Tamilnadu*** on ***14th & 15th December 2017.***

The Conference aims to cover the topics on information Technology which is very relevant & also the advancements in science & engineering. Participation in such conferences would surely enhance the creative thinking of the students in particular & all the participants at large. This would also pave way for the future technologies to be considered that would emerge at the end of this conference.

My best wishes for the successful conduct of the two day conference.

Dr.B.K. VENKATARAMU

Dr.K.KADIRVELU.,
DRDO Coordinator & Joint Director,
DRDO-BU Center for Life Sciences,
Bharathiar University Campus, Coimbatore,
Tamil Nadu.

MESSAGE

It gives me immense pleasure to know that the ***A.P.C.Mahalaxmi College For Women*** and ***Institute for Engineering Research and Publications*** jointly organizing the ***International Conference on Recent Advancements in Information Technology Science & Engineering (ICRAITSE-17).***

Recent Advances in Information Technology science brings you a balanced, state-of-the-art presentation of the latest concepts, methods, algorithms, techniques, procedures and applications of the fascinating field of new concepts in engineering sciences. This broad field of ideas would be helpful to link the interdisciplinary sciences together to create visionary towards future technologies. If utilized effectively the broad spectrum of ideas definitely will bring the make in India dream eventually to success.

I am sure that this conference will be a platform to bring together both researchers and industrial experts and thereby provide an insight to the new and innovative advancements available in the field of information technology science & engineering.

I wish the entire team of ***ICRAITSE*** good luck for the successful conduct of the conference and gladly record my hearty wishes to the organizers.

Good Luck!!!

Dr.K.KADIRVELU

Dr.Jasten Ebinezer.,
B.Th., B.B.A., M.A., M.S.W., M.Phil., Ph.D., D.D., P.G.D.EHRM.,
Philosophy and Comparative Studies of Religion,
Southern Cross University., Australia.
228, 8th Street, Malleswari Nagar, Madambakkam, Chennai

MESSAGE

I am indeed most delighted and profoundly happy to know that ***IFERP*** along with ***APC Mahalaxmi College for Women*** is organizing ICRAITSE '17 ***(International Conference on Recent Advancements in Information Technology, Science and Engineering)*** on 14th and 15th December to be held in Tuticorin. I am indeed honoured to have been part of this conference as the Keynote Speaker.

As the conference has employed a holistic and interactive approach, it would bring together a very good programme that stimulates both our technical knowledge and scientific intellect. I do strongly believe that such conferences would enable the participants to think positively and generate knowledge to innovate and invent for the better future. Exposure to such conferences would enhance the students' understanding of the current developments and recent advancements in their respective realms and prepare them for the new trends and paradigm shifts.

I would like to congratulate IFERP and APC Mahalaxmi College for Women for all their initiatives and efforts in this regard and wish them a very successful programme.

Dr.Jasten Ebinezer

Dr.Subhransu Sekhar Dash.,
Professor & Head
Dept. of EEE.,
SRM University, Chennai

MESSAGE

I am glad to know that the ***IFERP*** and ***A.P.C.Mahalaxmi College For Women, Tuticorin*** CS Department is organizing an ***International Conference on Recent Advancements in Information Technology, Science and Engineering (ICRAITSE-17)*** during 14th & 15th December 2017.

Organizing such an event at this point of time reinforces the main objective of creating an atmosphere for the exchange of ideas for development. Evolving technologies are mostly interlinked with basic emerging sciences, all innovations and intelligent applications being mostly interdisciplinary. This occasion, not only offers a platform for research scholars, academicians and industrial experts for mutual exchange of ideas on newer findings, but also paves the way to go beyond the current development and upgrade the technical expertise for the benefit of the society at large.

I convey my warm greetings and felicitations to the organizers and the participants and extend my best wishes for the success of the conference

Dr. S.S. DASH

Dr. Nurul Akmal Bt Che Lah.,
Senior Lecturer
Faculty of Mechanical Engineering
Universiti Malaysia Pahang
26600 Pekan, Pahang
Malaysia

MESSAGE

The exploration of the innovative properties of engineered nanomaterials specifically in electronics and electrical applications are not new and yet progressing particularly in the size-tuning-based assembly.

Recently, the new approach in combining broad classes of dissimilar engineered materials into heterogeneous integrated electronic device systems with multiple dimensional layouts (_e.g_. nanotube, nanowires, and nanoribbons) becomes one of the promising routes in yielding high-throughput performance integrated electronics on rigid and flexible device substrates. Getting a right materials properties at right design stage is crucial. Therefore, the size and morphology-dependent variation in the intrinsic properties of matter, e.g. dimensionality, geometry, composition, uniformity and degree of aggregation at the nanoscale, is one of the most enchanting aspects of nanoparticles which need to be understood.

Dr. Nurul Akmal Bt Che Lah

ICRAITSE-17

International Conference on Recent Advancements in Information Technology, Science and Engineering

Thoothukudi, Tamilnadu 14th & 15th December 2017

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Chief Guest

Dr. C. Veerabahu
Principal
V. O. Chidambaram College
Thoothukudi,
Tamilnadu, India.

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- ***Prof. R.Waheetha***, Asso. Prof, Holy Cross Home Science College,Thoothukudi.
- ***Prof.T.Vidhya***, Asst Prof, Holy Cross Engineering College,Thoothukudi.

Acknowledgement

It is indeed a privilege to acknowledge and thank all the supporters and organizers of the International Conference on International Conference on **"Recent Advancements in Information Technology Science & Engineering (ICRAITSE-17)"**, who contributed greatly to organize the conference successfully.

I wish to express my gratitude to my Directors at IFERP, for their guidance and supervision.

I would like to acknowledge and thank the Chief Guest for his/her valuable speech in ICRAITSE-17. I extend my gratitude to our distinguished Keynote Speakers and to our Session Chairs. I also wish to thank the valuable services provided by the reviewers and editors. My special thanks to all of our Special Guests who so graciously accepted our Invitation to participate in the conference. I also wish to acknowledge and thank the sponsors of the conference whose financial support was extremely grateful.

I would like to specially thank our Advisory Committee Members from various Institutions whose continuous support have helped us plan and execute the conference successfully.

I am highly indebted to the contribution given by all the Students, Researchers & Industrialists to the conference.

Finally I would like to thank my dear Colleagues at IFERP and the Organizing Committee Members from A.P.C. Mahalaxmi College who contributed gratefully to organize the conference successfully.

CONTENTS

CONTENTS

CONTENTS

CONTENTS

CONTENTS

CONTENTS

CONTENTS

CONTENTS

CONTENTS

CONTENTS

CONTENTS

CONTENTS

CONTENTS

CONTENTS

CONTENTS

CONTENTS

CONTENTS

CONTENTS

CONTENTS

CONTENTS

ICRAITSE - 17

International Conference on Recent Advancements in Information Technology, Science & Engineering

Thoothukudi , Tamilnadu

14th – 15th December, 2017

ABSTRACTS

ICRAITSE - 17

Organized by

A.P.C.Mahalaxmi College For Women
and
Institute For Engineering Research and Publication (IFERP)

Dynamic Frequency Filtering based on Analysis of Hearing Impairment

Padmaja Kuruba., Asst prof, Department of ECE, Global Academy of Technology, Bangalore, Karnataka.
Tilak Kumar L., Asst prof, Department of ECE, Global Academy of Technology, Bangalore, Karnataka.

Abstract:--

Worldwide more than 10% of the people are suffering from Hearing impairment. The statistical report shows more than 20 crores of people are subjected to various levels of hearing problems based on various reasons depending on the surrounding environment. Hearing impairment is seen in all age groups from infants to adults. In this paper, we propose a digital hearing system which mimics the biological ear. The system is designed to produce required sound based on the patient impairment level, using digital signal processing techniques. This involves noise reduction, frequency selected filtering & amplification and compression such that bouncing of the frequencies is avoided. The proposed work is simulated using MATLAB where the following parameters are tested namely 1) reduction of white gaussian noise 2) increase in the gain of specific frequencies 3) dynamic shaping of the signal amplitude to reduce bouncing of the signal.

Keywords:--

Hearing Impairment, Gaussian Noise, Filtering.

Li-Fi based Smart Home Automation System

Padmaja Kuruba., Asst prof, Department of ECE,Global Academy of Technology Bangalore, Karnataka
Suma K R., Asst prof, Department of ECE, Global Academy of Technology Bangalore, Karnataka

Abstract:--

Today the world runs behind wireless technology to have anything (data), anywhere and anytime. Most commonly used wireless technologies are blue tooth communication and Wi-Fi communication. These technologies yet fail in satisfying the demand of user. Emerging technology is Light Fidelity (Li-Fi) technology that uses visible light (that is abundant) for data transmission using Light Emitting Diodes (LED's). These LED's provide illumination and faster switching speed that can be used for data transfer. They operate at the Tera Hertz frequency range and provide better opportunities to achieve better data rates compared to Wi-Fi, Research is carried out to commercialize the technology. In the proposed work we use Li-Fi instead of Wi-Fi for data transmission which is used for smart home control. The speed of Li-Fi is greater than Wi-Fi by at least 100 times as visible light travels faster than radio waves.

Keywords:--

Li-Fi, LED's, Photo Decetors

On the Folding Of Finite Generalized Fuzzy Topological Space by Directed Fuzzy Graph

Dr.Karuppayi.K., Assistant Professor, Department of Mathematics, Providence College for Women, Coonoor, The Nilgiris.
Monica.D., M.Phil Scholar, Department of Mathematics, Providence College for Women, Coonoor, The Nilgiris.
Dr.Thanalakshmi.K., Associate Professor and Head , Department of Mathematics , Kamaraj College of Engineering and Technology, Virudhunagar.

Abstract:--

Generalized fuzzy topological space was introduced and studied by Palani Chetty in 2008.Thenotion of isometric folding has been introduced by S.A. Robertson who studied the stratification determined by the folds or singularities. The conditional folding of manifolds has been defined by M.E l-Ghoul .Some applications on the folding of a manifold into itself were introduced by P.Di Francesco. Also a fuzzy graph folding has been introduced by E.EL-Kholy. Then the theory of isometric folding has been pushed and also different types of folding have been discussed by E.EL-Kholy and others .In this paper we are discussing about the representation of finite generalized fuzzy topology by transitive directed fuzzy graph is investigated. Also the folding of finite generalized fuzzy topological spaces is studied. This is illustrated by giving example.

Keywords:--

Folding, Finite Generalized Fuzzy Topological, and Directed fuzzy graph.

Design & Analysis of EHV Transmission Lines

Harsh Bhatt., UG Student, EE Department., G H Patel College of Engineering & Technology, Vallabh Vidyanagar, Gujarat.
Jay Bhavsar., UG Student, EE Department., G H Patel College of Engineering & TechnologyT, Vallabh Vidyanagar, Gujarat.
Naimish Kapadiya., UG Student, EE Department., G H Patel College of Engineering & Technology, Vallabh Vidyanagar, Gujarat.
Chintan Patel., Asst. Prof., EE Department., G H Patel College of Engineering & Technology, Vallabh Vidyanagar, Gujarat.

Abstract:--

Modern Power Transmission system is utilizing ultra-high voltages. The distance of transmission and Bulk powers have increased to such an extent that Ultra High Voltages becomes necessity. The problems encountered with these lines are voltage regulation, efficiency, losses, etc., This paper discusses the efficient design of Extra High Voltage transmission lines & also covers the theoretical analysis of various problems combined with practical applications.

Keywords:--

EHV Transmission Lines, Design, Power Loss, Bundle Conductors.

IoT Based Smart Health Care Monitoring System

K.Dinesh., III year BTech**,** Department of Electronics and Communication Engineering, Rajiv Gandhi University of Knowledge Technologies, Telangana.

K.Vijayalakshmi., III year BTech**,** Department of Electronics and Communication Engineering, Rajiv Gandhi University of Knowledge Technologies, Telangana.

C.Nirosha., II year BTech**,** Department of Electronics and Communication Engineering, Rajiv Gandhi University of Knowledge Technologies, Telangana.

I.Siva Rama Krishna., II year BTech , Department of Electronics and Communication Engineering, Rajiv Gandhi University of Knowledge Technologies, Telangana.

Abstract:--

Internet of things (IoT) is a fast growing, a user-friendly technology which allows everything to connected and also allows effective communication between the connected "things". The Internet of Things, likewise called The Internet of Objects, alludes to a remote system between items, as a rule, the system will be remote and self-designing. The term "Internet of Things" has come to describe some technologies and research disciplines that enable the Internet to reach out into the real world of physical objects. IoT has many applications among them few are Traffic monitoring, Healthcare, Security, Transport, logistics and in our daily life. Generally in critical case patients are supposed to be monitored continuously to check their Heart Rate, oxygen saturation level and temperature as well. Previously doctors need to be present physically on sight. Now a day's SMS will be sent using GSM, but in this current data is displayed that is a specific time we mentioned. The past conditions of the patient cannot be displayed. It is like discrete data transmission, to convert it as analog we are going for IOT based health care system. The Internet of Things could be a game-changer for the healthcare industry. It is transforming healthcare industry by increasing efficiency, lowering costs and put the focus back on better patient care. IoT in Healthcare is a heterogeneous computing, wirelessly communicating system of apps and devices that connects patients and physicians to diagnose, monitor, track and store vital statistics and medical information. This paper describes E-Health Monitoring (EHM) and presents an architectural framework to describe the entire monitoring life cycle and highlights the essential service components. It serves as a fundamental basis for achieving robust, efficient and secure health monitoring. The primary aim of this paper is to design an IOT based architecture for health related issues such as Diabetics, Heart Monitoring system ,to check body temperature, Pulse rate and kidney functioning. we are analyzing different methods and techniques used for healthcare monitoring system where doctor can continuously monitor the patient's condition. The Data obtained through sensors are uploaded to the Ethernet module which is an IOT connected device to cloud and collected data is accessed by Authorized person through internet. Also the patient history will be stored in the web server and doctor can access the information whenever needed from any corner of the world. If there is any sudden change in the health condition of the person who are using this health care system module, automatically the data of the patient will be uploaded to the concerned doctor, within few minutes user will get a prescription for his current situation. This will connect us with the doctors who are very far from us, and the immediate action will increase the health rate of people. This health care system will be most useful in rural and remote areas.

Key words:--

IOT, Healthcare , Sensors, WSN (Wireless Sensor Network).

Superparamagnetic Fe_3O_4 Nanoparticles: Synthesis by Co-Precipitation and Magnetic Properties

D.Princess Jeba., Asst Prof, PG and Research Department of Chemistry, V. O. Chidambaram College, Thoothukudi., Tamilnadu, India.

Abstract:--

Superparamagnetic Fe_3O_4 nanoparticles were synthesised by a simple and efficient co-precipitation method. The conditions for the preparation of superparamagnetic Fe_3O_4 nanoparticles were optimised. The prepared nanoparticles were characterised by Fourier transform infrared spectroscopy (FT-IR), X-Ray Diffraction (XRD), Transmission Electron Microscopy (TEM) and Energy Dispersive X-ray spectroscopy (EDX). Magnetic properties were measured by a Vibrating Sample Magnetometer (VSM). The XRD results revealed that Fe_3O_4 as the product. The EDX spectra showed strong peaks of Fe and O. Magnetic characteristics of Fe_3O_4 nanoprticles revealed superparamagnetic properties.

Keywords:--

Superparamagnetic, nanoparticles, co-precipitation, Fe_3O_4

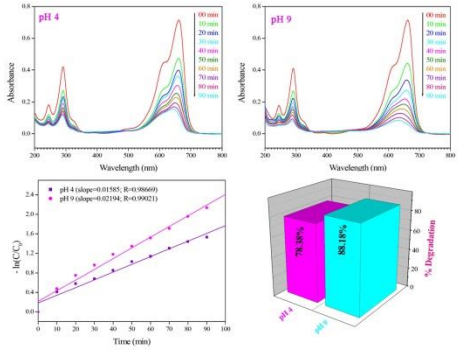
Photocatalytic Activity of Co_3O_4 - CuO - ZrO_2 Ternary Nanoparticles

S. Alwin David., Assistant Professor, PG and Research Department of Chemistry, V.O. Chidambaram College, Thoothukudi., Tamilnadu, India

Dr.C. Vedhi., Assistant Professor, PG and Research Department of Chemistry, V.O. Chidambaram College, Thoothukudi., Tamilnadu, India

Abstract:--

Nano Co_3O_4 - CuO - ZrO_2 mixed oxides were synthesized by wet chemical method by mixing of equimolar solutions of cobalt chloride, copper sulphate and zirconium oxychloride in aqueous sodium hydroxide and refluxed at elevated temperature. The photocatalytic activity of Co_3O_4 - CuO - ZrO_2 NPs was evaluated for degradation of Methylene Blue (MB) under sunlight. The photocatalytic activity is affected by pH of dye solution, photocatalyst particle size, photocatalyst dosage and dye concentration. The rate of MB degradation is almost 2.49 fold higher in the presence of sunlight than in the absence of sunlight.



The degradation efficiency of MB is considerably increased from 78.38% to 88.18% with increasing pH from 4 to 9. 0.1M Co_3O_4 - CuO - ZrO_2 NPs with smaller particle size (12.93nm) exhibits stronger photocatalytic activity as compared to other NPs (0.2M – 0.5M) with larger particle size (13.29 – 23.83nmsize). The dye degradation increases with increasing catalyst dosage, which is characteristic of heterogeneous photocatalysis. While increasing the dye concentration from 1.0 to 2.5 x 10^{-5} M the rate of degradation decreases.

Keywords ::--

Co_3O_4 - CuO - ZrO_2 NPs, Methylene blue, Photocatalyst, Photodegradation.

A Zone Based Routing Architecture for Information Dissemination Using V2V Communication in Vanet's

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Abstract:--

Vehicular Ad-hoc Networks (VANETs) are designed to communicate the vehicles with one another and it creates a large size network and vehicles are acted as the network nodes. By using a VANET, the information such as road traffic conditions can be shared via vehicles. An alternative exciting emerging application, called Infotainment, multi-broadcasting services to the vehicles in a particular area by using Vehicle to Vehicle (V2V) communication. VANET are designed by the principles of Mobile Ad-hoc Networks (MANET), whereby V2V communication and vehicle to roadside communications are enabled in order to provide road safety and transportations. Due to the rapid movement of vehicles, VANET exhibit rapid change network topology, these possess high mobility constraints. To analyze the characteristics of VANET nodes, we propose novel approach vehicle modeling and hash techniques into a VANET routing protocols. These techniques include information storage, maintenance, updates of vehicles, merging and splitting of zone. Vehicles which are in a actual moving patterns are joined together for dynamic moving zones in order to provide information dissemination. The simulation based results showed that the approach carried out on a real route maps and it compared with other existing routing protocols.

Key words:--

Vehicle modeling, Hash techniques, Zone based routing protocol, VANETs.

Customer Emotion Recognition and Satisfaction Mechanism

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Abstract:--

This paper presents an approach to find human face emotion recognition using images. In worldwide market many organizations put more importance to get customer satisfaction levels about products or services. With innovation changes in data and correspondence advancements an exceptionally foreseen key supporter to move forward the client experience and fulfillment in benefit scenes is through the use of human face images. The improvement of items or administrations that meet or surpass the client desires is the way to the accomplishment of the business in an undeniably focused and worldwide market. In this paper we are finding the customer's six emotions (happy, anger, sad, disgust, surprise, fear) by using Radial Basis Function (RBF) neural network. Though some of the audio visual emotion recognition systems are available our paper concentrates much on the general emotion which helps to judging the customer satisfaction. The propose work is verified with the numerical value of C score.

Ker Words:--

Face emotion recognition, customer satisfaction level, Radial Basis Function

Modernized Radio Astronomy using Data Mining Procedures.

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Abstract:--

With the advent of the new class of radio telescopes such as LOw Frequency ARray (LOFAR) and the Square Kilometer Array (SKA) the necessity of using data mining procedures to handle the huge amount of data collected during their observations became essential. Software design having complete shift of methods is used to collect information in the radio frequency domain. Digital processing of signal is collected by simple omni-directional antennas, which is connected to the software. This technique enables the collecting elements to be spread over an area of hundreds and thousands of square kilometres, in order to map the radio sky with high angular resolution. The large area network provides the infrastructure for sensor networks with applications in other fields. With the data transport requirements of Tbits/s and processing power needs of TFlops/s this new arrays represent a real challenge for computing and existing technology. This raised the interests and stimulated the discussion between scientists and engineers. Here we will provide an overview of the current radio astronomical facilities and those planned for the future to highlight their requirements and their performances.

Keywords :-

Frequency, LOFAR, SKA, Radio Signal, Telescopes, Antennas

Path Reconstruction in Large Scale Sensor Networks

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Abstract:--

In this paper routing path of the network is tried to be optimized. Diverse application has certified that the large proliferation with increasing scale in wireless sensor networks has high efficiency. In order to understand the interior network behaviors the routing path of each packets are been used. Inferring routing path of the forwarded packets, the pathfinder uses topical packets from the forwarders. When the next hop of the redirect packet and the first hop of the local packet are the same information of the first hop receiver helps the redirect packet to reconstruct the one hop in its routing path. Sensor nodes are usually self-organized in wireless sensor networks. Data is delivered in a multi-hop manner by central sink. Fine-grained diagnostic analysis and performance optimization of the network was enabled by Reconstructing the per-packet routing path. Analyses helps to track ,collected scale deployed in the network and was done by presenting a trace-driven study. Which evaluates the successful reconstruction probability and also to compare the results with the nominal reconstruction results to validate the correctness of the model.

Prediction of Diabetic Disease using Classification Algorithms

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Abstract:--

The main objective of the research is to predict the diabetic patient and normal patient based on test results or test reports using classification algorithms. In data mining, different techniques can be used for solving problems. For example, classification, prediction, clustering are data mining techniques. Classification is the process of classifying the data according to the features of the data with predefined set of classes. Prediction is used for predicting the class label for new data. The WEKA tool is used to develop a classifier for predicting the diabetic patient and normal patient. The diabetic dataset is used for prediction process. The data set can be divided into two subsets.

The first one is training set and other one is test set. The training set contains set of attributes with class labels. The test set contains set of attributes and it doesn't contain class labels. It was predicted by classifier or model. The research takes three algorithms such as Naive Bayes, Multilayer perceptron and IBK. Each algorithm provides best accuracy for prediction process. The accuracy of the Naive Bayes algorithm is 100%.

Keywords:--

Diabetic patient, Normal patient, Prediction, Accuracy, Classifiers.

Optimized Blind Image Watermarking Method Based on Firefly Algorithm in Wavelet Packet Transform (WPT) Domain

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Abstract:--

The rapid spread of the internet, accompanied by the comprehensive development of digital technologies and easily reproduced digital media, has increased the popularity of such media. The current challenge is how to protect the ownership of digital products while allowing the full usage of internet resources. Digital watermarking has been suggested as a way to achieve digital protection. The purpose of digital watermarking is to insert the secret data into the image without significantly affecting the visual quality. The authenticity and copyright protection are two major problems in handling digital multimedia. The Image watermarking is most popular method for copyright protection by Wavelet Packet Transform (WPT) which performs 3 Level Decomposition of original (cover) image and watermark image is embedded in Lowest Level (LL) sub band of cover image. Inverse WPT is used to recover original image from watermarked image. Fingerprint is used as biometric key.

Keywords:--

Wavelet Packet Transform (WPT), Finger print, biometric key, Digital Watermarking, Digital multimedia.

Third order Non-Linear optical properties of Laspargine admixtured Lithium Chloride (LALC) Single Crystals by Z-Scan Technique.

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Abstract:--

In this present work, single crystals of Laspargine admixtured Lithium Chloride (LALC) were grown by the solution growth method using deionized water as a solvent. Optical quality of crystal was observed to be good. The nonlinear refractive index (n) and susceptibility (χ) have been measured through the Z-scan technique. This method has been widely used in material characterization because it provides not only the magnitudes of the real part and imaginary part of the nonlinear susceptibility, but also the sign of the real part. Nonlinear absorption co-efficient β is determined. Non-linear refractive index (n) measured at the wavelength of 632.8nm is calculated to be -2.244 × 10-10 cm2/ w. From the studies it is inferred that the crystal possess promising third-order optical susceptibilities, which allow to use the crystal as optical limiters.

Keywords: -

LALC, Z-Scan.

Effective Contrast Based Dehazing By Using Air Light Estimation

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Abstract:--

Haze is a common natural phenomenon in our daily life caused by the atmospheric absorption and scattering. When haze appears, we always capture the photographs with low contrast and lack of clarity. The low-quality images caused by haze usually degrade the performances of various image processing and video analysis algorithms, such as face recognition, object tracking and intelligent surveillance. The dehazing technique can eliminate the bad effect of haze on images and enhance the performances of image/video processing algorithm in the hazy weather. The present project work is to enhance the visibility, saturation, contrast and reduce the noise in a foggy image.

I propose a method that uses single frame for enhancing foggy images using multilevel transmission map. The method is fast and free from noise or artifacts that generally arise in such enhancement techniques. A comparison with existing methods shows that the proposed method performs better in terms of both processing time and quality.

Keywords:--

Haze Image, Image Processing, Refining Images, Transmission Map, Matching Points.

Corrosion behavior of mild steel by using natural products as inhibitors in H_2SO_4 medium

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Abstract:--

Purpose

The purpose of this paper is to evaluate the corrosion inhibition potential of some medicinal plants such as Calotropis porcera, Ficus religiosa, Lawsonia inermis, Nerium oleander, Sesbania grandiflora in sulphuric acid medium on mild steel with a view to developing green corrosion inhibitors.

Design / methodology / approach

Extract of the chosen plants were studied for its corrosion inhibitive effect by weight loss, electrochemical, SEM and FT-IR methods. Using weight loss measurement data, mechanism of inhibitive action is probed by fitting in adsorption isotherm.

Finding

The Nerium oleander among the chosen plants has been found to show significant corrosion inhibitive effect in sulphuric acid medium on mild steel.Inhibition is through adsorption of the photo constituents on mild steel following Tempkin adsorption isotherm. The results of AC impedance and polarization studies correlate well with the weight loss studies.

Originality / value

The plants have been investigated for the first time for its corrosion inhibitive effect. The effect has been studied by proven methods. This green inhibitor can find use in the inhibition of corrosion in industries where mild steel is used as a material of choice for the fabrication of machinery.

Keywords:--

Plants, steel, corrosion inhibitor, sulphuric acid, electrochemical.

Fabrication and Optimization of MEMS based Micro Grinder

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Abstract:--

Micro fabrication technologies have been steadily advancing in recent years. Research and development are being vigorously conducted with a view towards the implementation of micro machines. Miniature of components with micro scaled features are increasing required in many industries including bio medical, Consumer electronics, automotive and defense. Mems has been identified as one of the most promising technology for 21 st Century has the potential revolutionize both industrial and consumer products. MEMS is a technology used to create tiny integrated chips that combines mechanical and electrical components. Micro grinding has a competitive edge over micro fabrication processes are generally used as finishing process and generated very high surface finish. In this experimental work, fabrication of mems based micro grinding machine for the purpose of producing very high surface finish on micro components. Dimensions of Micro grinder are 10mm x 2mm x 2mm and provide speed of 10,000 rpm. Optimize the material removal rate of micro grinding process parameters are selected by L9 orthogonal array using 3 levels and 2 factors. Main objectives of the MEMS based micro grinder are saving energy, space, material, time and other resources. The sustainability of miniaturized production are discusses from three perspective such as Economic, Environment and social.

Keywords:--

Micro Fabrication, MEMS, Micro Grinder, DOE, Analysis.

Synthesis and IR Spectral studies of cis and trans potassium diaquadioxalatochromate III dihydrate

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Abstract:--

This paper reports on our visual observations of the formation and growth of cis and trans potassium diaquadioxalatochromate III dihydrate crystals from definite quantities of potassium dichromate, oxalic acid and ethyl alcohol using standard procedures. Hydrate crystals first formed on the water drop surface and then floated up to the apex of the drop. The hydrate crystals that were thus accumulated on the apex of the drop grew to form a cap or shell that partially covered the upper area of the drop surface. This hydrate crystal shell exhibited a coarse, apparently polycrystalline, surface texture. IR spectral studies were also carried for above prepared crystals and three bands were observed in the spectrum which indicates the possible three transitions for this complex.

Keywords :—

cis and trans potassium diaquadioxalatochromate III dehydrate, IR spectral studies

Preparation, Characterization and Antibacterals Applications of $MgO-ZrO_2$ Mixed Oxide Nanoparticles

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Abstract:--

$MgO-ZrO_2$ nanoparticles was synthesized by wet chemical method by mixing solutions of magnesium sulphate (0.45 M) and zirconium oxychloride (0.25M) in aqueous sodium hydroxide and refluxed at elevated temperature. The synthesized nano mixed oxide was characterized by FT-IR, XRD, SEM, EDAX, DSC and CV studies. From XRD studies, the average size of the nanoparticles was determined to be 9.44 nm in diameter. The elemental composition and morphology of nano mixed metal oxide have been analyzed by EDAX set up attached with scanning electron microscope (SEM). EDAX analysis indicated that the presence of elements like Mg, Zr and O. SEM morphological studies of the nano $MgO-ZrO_2$ particles revealed the particle distribution with somewhat spherical like structure. From cyclic voltammetric studies, nano $MgO-ZrO_2$ particles exhibited good adherent behavior on electrode surface and good electroactivity. DSC thermogram of nano mixed oxide recorded at the heating rate of 50°C/min. The nano mixed oxide showed good thermal stability. Antimicrobial activity of the synthesized mixed oxide was also investigated. The nano $MgO-ZrO_2$ particles showed good antibacterial activity.

Keywords :—

EDAX, DSC, SEM, Mixed oxide.

Simulating Real Data by using the concept Autopilot

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Abstract:--

This paper proposes an autopilot system for a small and light unmanned air vehicle called Kite plane. The Kite plane has a large delta-shaped main wing that is easily disturbed by the wind, which was minimized by utilizing trim flight with drift. The proposed control system for autonomous trajectory following with a wind disturbance included fuzzy logic controllers, a speed controller, a wind disturbance attenuation block, and low-level feedback controllers. The system was implemented onboard the aircraft. Experiments were performed to test the performance of the proposed system and the Kiteplane nearly succeeded in following the desired trajectory, under the wind disturbance. Although the path was not followed perfectly, the airplane was able to traverse the waypoints by utilizing a failsafe waypoint updating rule. The literal meaning of autopilot is a device that steers a ship, plane, or spacecraft by itself, without a person. However, the expression "on autopilot" has developed a different meaning. Here are some typical uses of the expression "on autopilot," In this paper we propose an approach for generating real life data over which we have control of the concept and can generate data exhibiting different types of concept drift. The approach uses a 3-D driving game to produce a data stream of instances describing how to drive around a track. The classification problem is learning the driving technique of the driver, which can be affected by changes in the driving environment causing changes to the concept. The paper gives illustrations of different types of concept drift and how standard concept drift handling techniques can adapt to the concept drift.

Advanced Smart Crawler: A Dual Stage Crawler for Harvesting Deep Web Interfaces

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Abstract:--

As a profound web progress at a brisk pace, there has been expanded enthusiasm for strategies that assistance efficiently find profound web interfaces. Notwithstanding, because of the extensive limit of web assets and the changing idea of profound web, accomplishing wide scope and high efficiency is a troublesome issue. We present a two-stage framework to be specific Advanced Smart Crawler, for efficient collecting profound web interfaces. In the first stage, Advanced Smart Crawler performs site-based traversing for focus pages with the help of search engine , to stop going by an immense gathering of pages. To gain more perfect outcomes for a focused crawl, Advanced Smart Crawler grades websites to give weight to highly related ones for a given topic and also Re-ranks forms. In the second phase, Advanced Smart Crawler achieves fast in-site searching by excavating most releated links by utilizing an algorithm called adaptive link-ranking. To avoid hettic on traversing some mostly related links in un seen web directories, we model a link tree data structure to gain larger report for a website. Our experimentation outcome on a set of five representative domains shows us the correctness of our proposed crawler framework, which effectively fetches up deep-web interfaces from massive-scale sites and achieves higher harvest rates than existing crawlers and also we try to un cover forms that are un reachable to the user using our proposed framework.

Keywords:--

Deep web, crawlers.

Recognition, Description and Localisation of Images Using WS-MRF-SIBP

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Abstract:--

This paper proposed a WS-MRF-SIBP model to learn the weakly labeled images. The object, attribute and background appearances, object-attribute association and their locations from realistic weakly labeled images including multiple objects with cluttered background are learned from the images. Then a novel weakly supervised Bayesian model is formulated to learn and exploit spatial coherence and factor co-occurrence. Once learned from weakly labeled data, this model performs various tasks including semantic segmentation, image description and image query.

Keywords:--

Weakly supervised learning, object-attribute association, semantic segmentation, non-parametric Bayesian model, Indian Buffet Process

Blue Eyes Technology

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Abstract:--

The Blue eyes technology is to develop a computational machine having sensory and perceptual ability like those of humans. The Blue Eyes technology system is a combination of a set of hardware and software systems. The hardware consists of a Central System Unit (CSU) and Data Acquisition Unit (DAU). Blue Eyes technology uses most modern cameras, microphones and advanced non-obtrusive sensing techniques to interact with humans and understand the emotions of human beings. The software helps to transfer the data or information from managers to the data analyzers. animal survival depends on highly developed sensory abilities. Likewise, human recognition depends on highly developed abilities to perceive, integrate, and interpret visual, auditory, and touch information.

The BLUE EYES system checks above parameters against abnormal (e.g. a low level of blood oxygenation or a high pulse rate) or undesirable (e.g. a longer period of lowered visual attention) values and triggers user-defined alarms when necessary. The "BLUE EYES" technology aims at creating computational machines that have perceptual and sensory ability like those of human beings. The mobile device is integrated with Bluetooth module providing wireless interface between sensors worn by the operator and the central unit. ID cards assigned to each of the operators and adequate user profiles on the central unit side provide necessary data personalization so different people can use a single mobile device.

Keywords : -

BLUE EYES system, data acquisition unit, data personalization

A New Approach to Improve the Efficiency of Bubble Sort

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Abstract:--

One of the most common and basic issues in computer science is ordering a listing of things that is well known as 'Sorting'. Since it has gained its importance in real world problems, it also gets the attention of research in computer science. As a matter of fact, numerous varieties of sorting algorithms have been developed. Some well known sorting algorithms are Bubble sort, Heap sort, Insertion sort, Merge sort, Quick sort, Selection sort, Shell sort. The programmer uses a certain algorithm depending on the characteristics of distribution of the data elements or on some other context. There are number of other sorting algorithms and still, analysis is going for new sorting algorithms to boost the complexities of existing algorithms whether it is space complexity or it is time complexity. This paper introduces a new algorithm named Enhanced Bubble Sort (EBS), which is an enhancement to the bubble sort algorithm in decreasing the time for traversing the elements from the beginning. This sorting technique is very simple to implement and, it is helpful to reduce the elapsed time when sorting the data. This algorithm varies in such a way that the user doesn't need to compare the last entered elements, but he desires only to compare the complete list with next entering element, because the list is previously sorted before incoming next element. In all the prevailing algorithms, first complete list is entered, then the list is handled for sorting, but in case of suggested approach, the list is sorted simultaneously. The proposed sorting technique protects the time for traversing the list after entering all the elements, as it sorts all elements before entering any new. EBS works well when the list of numbers to be sorted is large. In order to test the efficiency of the proposed algorithm it was implemented in C language on core i3 machine with Window 8 on the same elements of unordered list. The experimental results has been compared with normal bubble sort and EBS in terms of average case, best case and the worst case and it has been found, that the performance of the proposed algorithm is far higher than the previous ones.

Keywords:--

Sorting algorithm, Bubble sort, space complexity, time complexity

Classifying and Analysis of Big Data Using Neural Fuzzy Systems

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Abstract:--

In This paper discuss about classifying and analysis of Big Data using Neural Fuzzy Systems. A Neuro-fuzzy system is a fuzzy system that uses a learning algorithm derived from or inspired by neural network theory to determine its parameters (fuzzy sets and fuzzy rules) by processing data samples. A Neuro-fuzzy system can be viewed as a 3-layer feed forward neural network. The first layer represents input variables, the middle (hidden) layer represents fuzzy rules and the third layer represents output variables. The input variables are Big Data (term for Data sets).The middle or hidden layer is used to generate an automatic rule for structured and unstructured data by learning algorithm. In third layer it generates an output. Finally analyze latency, throughput, and fault rate.

Keywords:--

Big Data, Neural Fuzzy System, Data Set, Classifier.

A Network Defense system with data security

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Abstract:--

Computing systems have recently suffered significantly from hacking, and preventing hacking is important in protecting business, sensitive information and everyday network communications. Many efforts have been made to provide security assurance by proposing some of the security solutions. However, the gap between hacking incidents and current security solution is significant. Fortunately, hacking attempts can be addressed if the pre-hacking step called scanning is properly investigated and good counter measures are placed. The importance of scanning appears is in providing sophisticated hackers with the necessary information about nominated victim systems which eventually forms their hacking strategies This paper propose a concepts for an improved security solution that aims to make scanning difficult by addressing its properties, which makes developing appropriate hacking strategies against protected computer networks. Also added features like energy-efficiency, reliability, and prolonging network lifetime by improving some aspects of the algorithm which is already existed and create way for the excellent data security also. It considers the energy consumption and the remaining battery energy of nodes as well as quality of links to find energy-efficient and reliable routes that increase the operational lifetime of the network. The proposed security solution protects computer networks by dynamically generating a unique protocol to replace the expected standard protocols and changing network paths periodically in order to confuse scanning attempts, as well as prevent unauthorized scanning and hacking traffic.

Keywords:--

Hacking, Scanning, Enumeration, Reliability

Visual Analysis for Data Exploration – Wavelet

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Abstract:--

In image and signal processing, the conventional wavelet transform is used. In this, the signal is decomposed into a combination of known signals. To analyse the contribution of an individual, the original signal's behaviour can be inferred. In this article, an overview of the extension of this theory into graph domains is presented as an introductory by the author's. In this we are about to review the graph Fourier transform and graph wavelet transforms. These transforms are based on dictionaries of graph spectral filters, namely, spectral graph wavelet transforms. By this we present the main features of the graph wavelet transforms using real and synthetic data. The challenging problem that has been faced is to visualize time-varying data defined on the nodes of a graph. As a result we show our approach using synthetic as well as a real data set.

Index terms:--

wavelet transform, signal

Disease Prediction and Classification using Machine Learning

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Abstract:--

General health examination has become necessary in this modern society. The challenging aspects of health examination data lies in the presence of heterogenity, intrinsic noise and unlabelled data's. Early detection and prevention of disease is important to avoid risk for the participants. Risk prediction plays a major role in preventing the user from severe attack of diseases and its challenge lies in the classification of unlabelled data. The collected datasets has enormous amount of unlabelled data and to deal with this, a graph-based semi-supervised learning algorithm called SHG-health(Semi-Supervised Heterogeneous Graph on Health) is used. As this algorithm deals with heterogenity, it has become optimal to work with graph based approach. To make it further more optimum, multi-typed relationships of data's is identified. By integrating data's of multiple sources, a more effective results can be achieved.

Index Term:--

Health examination records, semi-supervised learning, and heterogeneous graph.

A Study on Pattern Recognition of Tumor Images in Medical Image Analysis

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Abstract:--

Medical image investigation can be conducted through a highly intellectual cognitive process that requires special medical knowledge and experiences. It is not completely clear about what kind of information is needed and what data is used for the highly intelligent finding but comparatively some low level features such as shapes, texture and other pixel based statistics extracted from the images can be used for diagnosis. In this intellect medical images can be diagnosed by using different pattern recognition algorithms. In this paper for cancer diagnosis by using X-ray Computed Tomography (CT) images, fundamentals and some advanced techniques of pattern recognition in medical image diagnosis will be studied extensively

Index Term:--

Medical image, Pattern recognition

On Contra b*ĝ-Continuous functions in Topological Spaces

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Abstract:--

In this paper a new class of function called contra b*ĝ-continuous function is introduced and its properties are studied. Some characterization and several properties concerning contra b*ĝ-continuity are obtained. Also, contra b*ĝ-irresolute function and perfectly contra b*ĝ-irresolute function are introduced.

Key words: --

b*ĝ-closed sets, b*ĝ-continuous, contra b*ĝ-continuous, contra b*ĝ-irresolute.

AMS Mathematics Subject Classification:

54C08, 54C10.

Some Structures of Idempotent Commutative Semi group

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Abstract:--

The algebraic theory of semigroups was developed by A. H. Clifford and G. B. Preston and it was extended by several authors like David. McLean . The algebraic theory of commutative semigroup was studied and extended by various authors like M. A. Taiclin , A. P. Biryukov. In this paper, we have defined some structures of Idempotent Commutative Semigroup. We have given a notion of left (right) normal, left(right) quasi-normal, regular, normal, left(right) semi-normal, left(right) semi-regular, rectangular, reduced in a Idempotent Commutative Semigroup S. We have proved various theorems like an Idempotent Commutative Semigroup S is left(right) normal if and only if left(right) quasi- normal; S is regular implies normal and vice versa. Further we also proved that S is left(right) semi- normal if and only if left(right) semi-regular; S is left(right) quasi-normal implies left(right) semi-regular and vice versa. We also verified that S is left(right) quasi-normal if and only if left(right) semi-normal. Further it is proved that every left singular with rectangular semigroup is reduced.

Index Terms:--

Semigroup, Identity, Idempotent elements, Commutativity, rectangular and reduced elements.

Application of WSN in Health Monitoring System

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Abstract:--

Health monitoring system plays a vital role in the overall development of the physiological as well as social wellbeing of the society. Observance of prevention in the area of health has a significant impact on economic productivity and most importantly on quality of life of the common people and hence it is very essential to focus on the topic. Health parameters of a patient are being monitored continuously globally but monitoring is done under the observance of the health service provider. This paper discuses a monitoring system in which the vital health parameters such as temperature, SpO2, ECG, heartbeat, blood pressure and the body position of the patient can be monitored continuously. This paper intends to provide information using wireless network technology such as raspberry pi, Wireless Sensor Networks (WSN), sensors. The gathered data from the sensors can be monitored remotely in real time. The sensors will gather the data of the various body parameters and provide it to the ARM controller. The collected data will then be wirelessly transmitted to web portal.

Keywords:--

Health monitoring system, Android smartphone, biomedical sensors.

Advanced Deep Learning Based Automated Melanoma Recognition in Dermoscopy Images

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Abstract:--

The recognition of melanoma in dermoscopy images is an interesting task because of the low contrast of skin injuries, the huge intra class variation of melanomas, the great degree of visual resemblance between melanoma and non-melanoma lesions, and the presence of many artifacts in the image. To overcome the challenges, a new method for melanoma recognition is developed by incorporating very deep Convolutional Neural Networks (CNNs). When these methods are compared with existing methods our proposed method can produce more discriminative features for high accurate recognition. To yield full benefit of very deep networks, we propose a set of new methods to confirm real training and learning under limited training data. This method can confirm the performance gains achieved by increasing network Departmenth. Further, an enhanced convolutional residual network is designed for the precise skin lesion segmentation, and additionally its capability is enhanced by incorporating a multi-scale contextual information integration scheme.

A Survey on Prediction of Dengue Fever Using Classifiers

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Abstract:--

Preventable medical errors persists as the third most killers in U.S. Nowdays Dengue is one of the most threatening disease in Tamil Nadu. This disease affects many lives of the people in our state. Eventhough our government has taken many precautions for this disease; it cannot be controlled fully by our government. The main cause for this disease is female mosquitos, it is typically found in widespread hot regions. The symptoms for this disease will vary from one person to another person. Dengue infection has endarged 2.5 billion and more population all over the world. The diagnosis of disease is a vital and intricate job in medicine. Human however intelligent they may be, they are not experts on their own. But with assistance of data mining techniques like Naive bayes classifier ,J48 etc algorithm will predict the accuracy level of the disease and reduces time for prediction of disease. In Analysis of apopulation of Diabetic patients database in WEKA tool. Yasodha P. and Kannan performed analysisthe database and classified the data and then outputs were compared by using Bayes network, Rep Tree, J48 and Random Tree algorithms. Finally concluded that state in which of disease is in by entering patients daily glucose rate and insulin dosages thereby predicting and consulting the patients for their next insulin dosage. In classification techniques using WEKA tool for Breast Cancer. They have simulated the errors by using Bayes Network, Radial Basis function ,Decision Tree and pruning and Single Conjugaton Rule Learner algorithms.From their work it can be concluded that Bayes Network performs best and time taken to build model is 0.19 second and accuracy 89.7% and least error at 0.2140 as compared to other algorithms used.

Keywords::--

Waikato environment for knowledge analysis (WEKA) tool.

Mobile Ad-Hoc Network: A Survey and Analysis of Issues and Challenges in Security

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Abstract:--

Mobile Ad-hoc networks (MANETs) can be characterized as a gathering of vast number of mobile nodes that frame impermanent network without help of any current network infrastructure or central access point. Every node taking an interest in the network demonstrations both as host and a router and should along these lines will forward to parcels for different nodes. MANET assumes an indispensable part in everyday life it spares the most extreme assets and time. The attributes of MANETs, for example, dynamic topology, node mobility, gives substantial number of level of flexibility and self-sorting out capacity of that make it totally not quite the same as other network. This paper gives knowledge into the potential applications of ad hoc networks, different attacks and examines the mechanical difficulties that convention originators and network engineers are looked with.

Keywords:--

Routing, Topologies, Security, Challenges.

Malware Detection Using SVM Tool in Android OS Devices

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Abstract:--

With the increase of Android OS mobile's usage day-to-day, mobiles are getting affected with malware applications. Many Antimalware's are available in the market to detect and remove these malwares from the device. But these Antimalware's fails to detect the once the malware changes its form. To overcome this, we proposed a technique using Support Vector Machine (SVM) tool, which increases the malware detection strength. Each time when a new application is installed in the mobile, the permission features and Application Programming Interface (API) calls related to the application are extracted and weights are assigned to them. The weights are assigned based on their malicious nature. If the total weight exceeds the predefined threshold then it will considered as malware and reports to the user. This method can also detect even if the malware changes its form.

Big Data Analytical tools for Agriculture

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Abstract:--

The traditional methods used by the farmers in India, are very slow, undependable and large amount of crops are damaged in fields due to bacterial attacks and lack of information resources. Annually, such loss exceeds 40% in total. The main goal is to provide better solution for the finding problems and to enhance the productivity of the agriculture sector. The main awareness of this work is focused on Indian farmers as it addresses the key problems of getting the market status of different products, weather alerts and also provides multiple language support. This will effectively help farmers to sell their products in global market and earn remarkable profit. There is scope to maintain the information of all these and analyse properly and communicate with farmers. This kind of analysis can be done with latest technologies such as big data analytical tools. A real monitor system needed to communicate with farmers, time to time with support of mobile based application.

Keywords:-

Agriculture, farmers, product, analytical tool

Realistic and Efficient Communication for Vehicular Networks

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Abstract:--

Developing real time safety applications for vehicular ad hoc network (VANETs) requires a deep indulgent of the dynamics of the network topology uniqueness. Since these performance of the routing protocol and the practicability of these algorithms are decided with the dynamics and the application of VANET's. the efficiency of the algorithm is measured with various metrics like neighbor distribution, available number of clusters, duration of link establishment, and node degree based on time and space. In this study, a real world road topology is considered and from those data Performance Measurement System (PeMS) database into a microscopic mobility model to generate realistic traffic flows along the highway. This study proposes a novel obstacal based channel model with realistic data. The results are compared with the performance of common and more frequently used simplistic channel model with this sophisticated model. The proposed method hold good results while comparing with the existing method. While inspecting the key measures it is clearly visible that the lognormal and unit disk model fails to provide realistic VANET topology. Hence a new matching method is adopted to tune and correct the parameters of lognormal model with reference to the density of the vehicle and the other model is considered for evaluating the link characteristics over time.The parameters of the proposed model have been validated to depend only on the vehicle traffic density based on the real data.

Index Terms:--

realistic, matching mechanism, traffic density.

Design of Microstrip patch antenna by two different feeding methods at resonant frequency of 5.08GHz

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Abstract:--

In wireless communication, there are different types of micro strip antenna; the most commonly used antenna is patch antenna. In this paper, we designed a patch antenna operated at 5.08GHz for WLAN application by two different feeding methods and analysed results radiation pattern, input impedance, return loss and gain using an soft HFSS 13.0 software. The result displays coaxial feeding technique is good in radiation pattern, return loss, input impedance and gain compared with micro strip feeding technique.

Keywords: -Micro strip, HFSS, Radiation pattern, Impedance.

Social Network Structure

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Abstract:--

As user interact with social media spaces like twitter, they form connections that emerge into complex social network structures. This article proposes a conceptual and practical model for the classification of topical twitter networks based on their network-level structures. These connections are indicators of content sharing, and network structures reflect patterns of information flow. As current literature focuses on the classification of users to key positions, this study utilizes the overall network structures In order to classify twitter conversation based on their patterns of information flow. Four network, level metrics which have been established as indicators of information flow characteristics density, modularity, centralization and the fraction of isolated users-are utilized in a three step classification model. This process led us to suggest six structures of information flow, divided, unified, fragmented, clustered in and out hub and spoke networks. We demonstrate the value of these network structures by segmenting 60 Twitter topical social media network dataset's into these six distinct patterns of collective connections. We discuss conceptual and practical implications of each structure.

Keywords:-

social media, twitter - conceptual model - indicators of content sharing - structures of information flow - collective connections.

A Survey of Several Routing Protocols for MANETs

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Abstract:--

Mobile Ad Hoc Networks (MANET) are autonomously self-organized networks without infrastructure support. Nodes in MANET normally have limited transmission ranges. Some nodes cannot communicate directly with each other. Hence, routing paths in MANET Mobile Ad Hoc Networks potentially contain multiple hops, and every node in mobile ad hoc networks has the responsibility to act as a router. In proactive routing protocols, each node maintains routing information to every node in the network. But it is high in overhead and information is flooded in whole network. In reactive protocols the overheads is reduced by maintaining information for active routes only. The hybrid protocol which is a new generation of protocol was designed to increase the scalability and to reduce the route discovery overheads. Even though hybrid protocol suits for large networks, its complexity increases i.e. high traffic and significant reduction in throughput when it expands in scale. In order to increase the scalability the route discovery and route maintenance must be controlled. Depending upon the network traffic and number of flows the routing protocol should choose the hybrid protocol in association of the advantage of both proactive and reactive routing protocol. To implement this, use sequence numbering in destination routing protocol to avoid the complexity in larger networks.

Keywords:--

Ad Hoc; MANET; Node; Scalability; Proactive; Reactive; Hybrid Protocol.

On Total Detour Number of a Graph

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Abstract:--

For a connected graph (V,E), a set S⊆V(G) is called a total detour set of G if S is a detour set of G and the subgraph G[S] induced by S has no isolated vertex. The total detour number tdn(G) of G is the minimum order of its total detour sets and any total detour set of order tdn(G) is called a td-set of G. In this paper total detour number of some path related graphs and some cycle related graphs are found and compared with their detour numbers.

A Review to Track Hackers by Using Honeypot

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Abstract:--

Attacks on the internet cause harm to our security system. To minimize this threat, a security system that has the ability to detect zero-day attacks and block them with the help of Honeypot. "Honeypot is the active defence technology, which observes and capture new attacks". This paper proposes a honeypot-based model for Intrusion Detection System (IDS). The best useful data about the attacker is obtained. The ability and the limitations of Honeypots were tested. There is no point for users to interact with these systems. A Honeypot system in the wireless network is proposed in our paper to attract the attackers. Fake websites are used to do this process. Honeypot helps in detecting intrusion attacks in our system. The honeypot act as a normal system in the network having fake detailer invaluable information. Information about the attacks and attack patterns are stored. In future, we aim to use this trend for early prevention, so that pre-emptive action is taken before any unexpected harm to our security system.

Key words:-

Internet, threat, security, honeypot, attacker, intrusion detection system.

Prediction of Students' Performance: Artificial Neural Network Approach

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Abstract:--

Neural network techniques are applied in ample number of fields in the recent decades. Educational data mining is one of them where the data mining could be carried out effectively. The core tasks are classification, clustering and grasping of association rules. These could be accomplished with suitable educational data. Generally enormous algorithms, techniques, and tools are available for data mining. Identifying a best suitable algorithm for a specific task is still intricate. This paper represents the performance of some well formed neural network methods on students' performance prediction. Predictive analysis is a significant task in education domain. Exploitation of students' mark data leads to the better predictive analysis. In the field of educational data mining, most of the research works are focused on predictive analysis and models. There is scope for multidimensional predictions. This paper indicates some view points within the domain of neural network based educational data mining.

Keywords: -

Association rules, Data Mining, Education, Neural Networks, Prediction.

Merging Social Media and E-Commerce: How Social Media Transforms the Way We Live and Do Business

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Abstract:--

An enhanced web application, using web services is proposed for interconnection of three different servers like Social Network, E-commerce application and news portals. By the usage of Artificial Neural Network (ANN) along with a Text categorization technique, the recommended products will be categorized. Also enhanced micro blogging information is implemented for an efficient client-server process. Here, the three tier architecture has been used and is implemented for efficient data retrieval and data transfer. Tier one is the Social Network, Tier two is the Ecommerce and Tier three is the News servers. In the existing systems, mapping techniques are being used widely. This technique may cause inaccuracy during the time of data transactions. Here, Artificial Neural Network and text categorization techniques are being used so as to enhance the existing systems. Since this is three-tier architecture, the ratio is 1:1:3.The primary architecture will be the social network, followed by the e-commerce and finally the three news portals. Initially, the user signs up to the social network. While signing up, the user needs to provide all the personal and educational information for the user's profile. After creation of the social network account, the users may search for new friends and they may chat with the friends. The advanced micro blogging information considers only the public data and public chats. A micro data array will be created for each user in the social network. Automatically the micro array details will be sent to the e-commerce application and appropriate products for the user will be retrieved. Here the Artificial Neural Network will work as a third party agent and this agent will obtain all the recommended products. All the Products displayed will be the ones that are most relevant to the user's profile. The generated micro blogging information will contain alphanumerical characters like (A34#ULKNELRL*!). The same process is done for news servers.

Key words:-

Microblogging, Text categorization,Alpha numeric codes, Artificial Neural Network.

Kotlin - A New Programming Language for the Modern Needs

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Abstract:--

Java programming language is a widely used language for the development of Android applications. However recent research proves that this language suffers from certain drawback which is the main reason for the crashes of Android applications. This has paved the way for other alternative languages like Groovy,Scala,Kotlin,etc.. All the other languages mentioned above have their own demerits like Groovy suffers from unsafety whereas Scala generates steep learning curve. But Kotlin can be used widely instead of Java almost everywhere and its usage can be widely seen in Android applications development, Server-side development and much more. Our research work analyses how Kotlin can be integrated with the existing Java language. The experimental results prove that this new programming language can reduce the execution time and can increase security and conciseness when integrated with Java.

Keywords:-

Programming language, Android applications, Kotlin

An Efficient Brain Tumor Detection Algorithm Based on Segmentation for MRI System

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Abstract:--

A collection, or mass, of abnormal cells in the brain is called as Brain Tumor. The skull, which encloses your brain, is very rigid. Growth inside such a restricted space can cause problems. Brain tumors can be malignant or benign. Segmentation in Magnetic Resonance Imaging (MRI) was an emergent research area in the field of medical imaging system. In this an efficient algorithm is proposed for tumor detection based on segmentation and morphological operators. Quality of scanned image is enhanced and then morphological operators are applied to detect the tumor in the scanned image.

Keywords:-

Brain Tumor, MRI, Morphological Operators, Segmentation, Detection

Heart disease prediction in cloud environment through grouping

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Abstract:--

Cloud computing has several applications in fields of education, medicine and social networking. But the advantage of cloud for medical purposes is continuous, mostly because of the huge data produced by the health care industry. This huge data can be achieved through big data analytics, and hidden patterns can be mined using machine learning procedures. In specific, the latest concern in the medical domain is the prediction of heart diseases, which can be determined through result of machine learning and cloud computing. Hence, an effort has been prepared to propose an intelligent decision support model that can help medical experts in predicting heart disease created on the historical data of patients. Numerous machine learning algorithms have been applied on the heart disease dataset to predict exactness for heart disease. Naïve Bayes has been nominated as an effective model because it delivers the highest accuracy of 87% followed by AdaBoost and boosted tree. Furthermore, these 3 models are being grouped, which has increased the complete accuracy to 91%. The experimental results have also been assessed using 10,000 instances that obviously validate the maximum accuracy through grouping and minimum execution time in cloud environment.

Keywords:--

big data, cloud computing, ensembling, Hadoop, heart disease, machine learning

Retinal Blood Vessel Analysis using Genetic Algorithm

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Abstract:--

The window to retinal vascular system is the eye. Retinal blood vessels play a vital role in the detection of eye diseases like diabetic retinopathy, hyper tension retinopathy and glaucoma. In this work, Gabor filter is used to extract the blood vessel. Otsu's thresholding technique and morphological operators are applied to refine the images and analysis of the resultant images is done using genetic algorithm to determine the size of the blood vessel. Retinal images in the open access datasets STARE and DRIVE are analyzed for specificity and sensitivity.

Keywords:--

Retinal blood vessel, Gabor filter, Otsu's thresholding, morphological operators, genetic algorithm

Fuzzy Strong Bi-ideals in near Subtraction Semi group

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Abstract:--

Dheena discussed and derived some properties of near subtraction semi groups. The concept of fuzzy set was first initiated by Zadeh. In this paper, we introduce the notation of fuzzy strong bi-ideal of a near-subtraction semi group and obtain a characterization of a strong bi-ideal in terms of a fuzzy strong bi-ideal of a near- subtraction semi group. We establish that every fuzzy left X-subgroup and fuzzy left ideal of a near- subtraction semi group is a fuzzy strong bi-ideal of a near-subtraction semi group. But the converse is not necessarily true as shown by an example. Further, we discuss the properties of fuzzy strong bi-ideal of a near subtraction semi group.

Keywords:--

Near subtraction semigroups, fuzzy bi-ideal, anti-fuzzy bi-ideal.

A Comparative Study of Image Classification Algorithms for Landscape Assessment

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Abstract:--

The rapid variation in the landscape due to agricultural, migration, exploration and expansion activities is a critical problem associated with the country. There are both positive and negative impacts on the social, economic and political development of the country due to these activities. The negative impact is the degradation of the ecosystem due to the pollution in the surface and ground water resources. This poses health hazards to the human being. The existing classification techniques suffer low accuracy due to the presence of complex land cover patterns and vague relationship between land cover and spectral signals. Thus, there is a need to develop an efficient and affordable technique to classify the land cover regions for monitoring the biological dynamics in those regions. This paper presented a combined approach of the supervised and unsupervised image classification to detect the Land Use/Land Cover (LULC) classes. This detects the change in the LULC to design an environmental decision making framework due to the continuous conflicts on the impacts of the oil activities in this area. The performance evaluation results demonstrated the overall better accuracy on the detecting the changes in the landscape post-classification.

Comparison of K-Means and KNN Algorithm in Data Mining

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Abstract:--

Data mining is the procedure for analyzing data from different perspective and shortening it into helpful information. It can be used to increase income, minimize the costs. Data mining software is one of the analytical tools for analyzing data. It allows users to examine data from many different proportions, classify it, and review the relationships identified. Theoretically, data mining is the process of ruling correlations or patterns among dozens of fields in huge relational databases. Nowadays, organizations are accumulating vast and growing amounts of data in different formats and different databases. A data mining algorithm is a set of calculations which creates a data mining model from data. To build a model, the algorithm first analyzes the data and it look for particular type of pattern. These algorithms use the outcome of the analyzed data to define the most favorable parameters for creating the mining model. K-means is the unsupervised learning algorithm and it is an incremental approach to clustering data dynamically adds one cluster center at a time through a deterministic global search procedure. It is a simple and easy way to classify a given data set through a certain number of clusters. The k-Nearest Neighbors algorithm (or k-NN for short) is a non-parametric method used for classification and regression. In k-NN algorithm neighbors are taken from a set of objects for which the class (for k-NN classification) otherwise the object property value (for k-NN regression) is identified. This can be consideration of the training set for the algorithm, though no explicit training step is necessary.

Keywords:--

Data mining ,K-means,k-NN algorithm

Number Plate Detection Using Morphological Segmentation

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Abstract:--

This paper presents number plate detection using morphological segmentation with accurate localizing vehicle number plate from complex scenes continuously. A basic yet dynamic image downscaling technique is first proposed significantly advanced number plate localization without losing detection performance and that accomplished utilizing the real image. Moreover, a morphological segmentation approach is proposed to extract candidate region, thereby significantly decreasing the number plate area localization. Furthermore a morphological segmentation. For execution, a dataset consisting of 3727 images assorted scenes under various conditions is also presented. Extensive investigation on the generally used Caltech number plate dataset and our recently presented dataset illustrate that the proposed approach generously outperforms state-of-the-art method in terms of both detection precision and run-time efficiency.

Keywords:--

Number plate detection, morphological operation, segmentation.

Frequent Pattern Mining in Data Streams

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Abstract:--

Frequent patterns are set of items, each item set in a data stream. Frequent pattern mining to assert great effort due to high memory and processing costs, and accuracy requirement of the mining results. Data stream have become very popular because of the advances in hardware and software technology that can collect and transmit data time. The major constraint on data mining algorithms is to execute the algorithms in one pass. Stream of data flow in and out of a computer system frequently and with alternative rates. It may be not possible to store the whole data stream or to search through it several times due to its high data storage. Tree based algorithms are used to mine frequent patterns. One of the most popular data structure used here is FP-Tree. A FP-tree is a dense data structure that represents the data set in hierarchical format. This is an efficient and scalable algorithm to mine frequent patterns in databases.FP-Tree is an efficient algorithm for finding frequent patterns in transaction databases.

Keywords:--

Frequent pattern, data stream, data mining, FP-tree

Detection of Brain Tumor Using Convolution Neural Networks in MRI Images

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Abstract:--

Among mind tumors, gliomas are the most widely recognized also, forceful, prompting a short future in their most elevated review. Along these lines treatment arrange is the key to increase the life span of the oncological patients. Magnetic Resources Imaging (MRI) is frequently used in imaging technique to detect tumor is broadly utilized imaging strategy to evaluate these tumor,yet the extensive measure of information delivered by MRI avoids manual division in a sensible time, restricting the utilization of exact quantitative estimations in the clinical practice. In this paper a segmentation method is proposed with Convolutional Neural Network(CNN), normalization used as pre-processing and data augmentation to be very use full for Brain Tumor Segmentation in MRI image. the proposed method validated with a brain tumor challenge 2013 data base dice similarity coefficient metric are used.

Keywords:--

Brain tumor, Gliomas, Convolution neural network, Magnetic Resonance imaging.

Survey on Data Stream Management and Stream Security Models

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Abstract:--

The advancement in telecommunication and electronics results in enormous amount of data. The data or information collected from applications like traffic monitoring, weather monitoring, social networks (Facebook, twitter, etc...),web based retail applications (Amazon, Flipkart, etc..) are continuous data streams which cannot be handled by traditional data management systems. Data Stream Managers (DSM) are used to handle the data's with high volume and velocity, also known as Big Data. DSM helps to analyze the data streams to obtain useful insight from it. Streaming datas are continuous in nature and it has to processed consecutively ensure the freshness of the data. The data transmitted via a network also consists of some sensitive information like patients health records, banking transactions,etc.. Since, the analytics are used for decision making the data's transmitted has to be preserved from internal and external malicious attacks .In this paper, various data stream management and stream security models are discussed along with the symmetric cipher algorithms to implement the security models.

Keywords:--

Data stream, data confidentiality, Data Encryption, Symmetric Encryption

Challenges Faced by the Impact of Wireless Sensor Network in Internet of Things (IoT) Devices

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Abstract:--

The Internet is slowly moving from an Internet of people towards an Internet of Things (IoT). About 50 billion things may be connected to the Internet by the end of 2020. A Wireless Sensor Network (WSN) is a network comprising of several sensor nodes and each node contains a sensor which detects the physical process such as light, temperature, smell, pressure etc. A WSN is likely to be integrated with IoT and the sensor nodes connects internet dynamically in order to achieve the specified tasks. With the rapid technological development of sensors, WSNs will become the key technology for IoT. In every walk of life WSN are increasing tremendously. Recent research work proves that the existing WSN are not suitable to support the issues related to security and user acceptance. Our proposed method designs a new framework to combine WSN of IoT that identifies the issues related to security mechanisms, users' acceptance, and management of data privacy.

Keywords:--

Internet of Things (IoT), Wireless Sensor Network (WSN) , Internet, users' acceptance, data privacy, Security.

Concentration of Heavy Metal substances in Sardinella Longiceps in Threspuram Area, Thoothukudi.

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Abstract:--

Thoothukudi. popularly called as 'Pearl city' has lost its charm due to industrialization. Thoothukudi. sea water has become contaminated due to the effluent discharges from several industries. The Thoothukudi. sea water is contaminated and polluted due to the untreated sewage drained into the sea from Industries and factories. The outcome is that there is higher concentration of toxic heavy metals which affect the marines species especially Sardinella Longiceps. This paper is a report of research work carried out in the Threspuram Area of Thoothukudi. which is a part of Gulf of Mannar. An Investigation was carried out to assess the heavy metal substances(Cu, Ni, Fe, Co, Mn, Cr and Zn) in the commercially important fish species Sardinella Longiceps. The accumulation was found in tissues of muscles, liver, kidney and gills. Concentration of heavy metal substances were studied in sea water, sediment and the fish Sardinella Longiceps and the results showed that the concentration of heavy metals was found in the order of Fe>Mn>Cu>Pb>and Zn.

Keywords:--

Heavy Metals, Sardinella longiceps, Threspuram, industrialization.

Claw Decomposition of Total Graphs

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Abstract:--

A decomposition of a graph G is a family of edge-disjoint subgraphs {G1, G2, …, Gk} such that E(G) = E(G1) ∪ E(G2) ∪… ∪ E(Gk). If each Gi is isomorphic to H for some sub graph H of G, then the decomposition is called H- decomposition of G. A star with three edges is called a claw. In this paper, we give necessary and sufficient condition for the claw decomposition of the total graph of some standard graphs. Also we give necessary and sufficient condition for the claw decomposition of the total graph of corona of graphs.

keywords:--

decomposition ,claw,total graph

A Survey on the Graphical Security Models

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Abstract:--

In this paper we present and discuss the recent state of Graphical Security Models (GrSM) in terms of four conventional phases. Though various studies focused on improving the usability,efficiency and functionality of GrSMs, today's networked system is evolving with frequently changing topologies such as Cloud, SDN, IoT etc. and many hosts. To explore the usability of GrSMs, this survey summarizes the features of past research studies in terms of their computational complexity analysis and development and specify their applications in terms of their applicable domains, security metrics and availability of tools . In this proposes work we discuss the practical issues of modeling security, the differences of GrSMs, and their usability for future networks that are dynamic and large.

Keywords:--

Graphical Security Models, Cloud, SDN, IoT

Analysis of 5-Bit Multiplier using Reversible Logic

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Abstract:--

The Multipliers are the vital component of processors or computers. A Multiplier is one of the key hardware block in most digital signal processing systems. It plays an important role in digital filtering, digital communication and spectral analysis. Multiplication are very expensive and slow in the overall operation. The performance of many computational problems dominated by the speed where multiplication operation can be executed. Power dissipation becomes one of the primary design constraints. So we are going to analyse multipliers using reversible logic gates. In current scenario, the reversible logic gate attracting more interest due to low power consumption. The goals of reversible logic is to minimize the garbage, number of an inputs, total number of gates and delay. Under ideal conditions, reversible logic gates produce zero power dissipation. The applications of reversible logic circuits such as low power CMOS, Nanotechnology and optical data processing DNA computing and quantum computing.

Keywords:--

Reversible logic gates, Partial product generation (PPG), Multi-operand addition(MOA), Complementary metal oxide semiconductor(CMOS).

On Prime Labeling

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Abstract:--

A prime labeling of a graph G is an injective function f: V (G) → {1, 2, . . . , |V (G)|} such that for every pair of adjacent vertices u and v, gcd (f (u), f (v)) = 1.In this paper, it is found that whether the digraphs nP_2, nP_4, $Pm \cup P_n \cup P_1$, directed Snake TS_n and directed cycle Cn admit prime labeling or not. Further, the same is tried for full directed binary tree T_n.

Computerisation of Vedic Mathematics

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Ilaiya Raja.S., CEO of Login Technique & Curly Brace, Thoothukudi.

Abstract:--

To carry out tedious and cumbersome mathematical operations, simple formulae are seen in the book of Vedic Mathematics by Bharathi Krishna Thirathaji Maharaj. Thinking that these methods when applied in computer calculations may increase the speed of the computers. We tried to computerize those methods by writing c++ programs to execute the corresponding operations. In this paper, we write program for mulplicate of two digit, multiplication by 11 and multiplication by 9. We tried to generalize the multiplication of any two numbers with any number of digits.

Keywords:--

Mathematical, computer calculations, speed, digits

Analysis on Economic Viability of Location Based Cloud

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Abstract:--

Computation takes it path from mainframe to Client-server and then from web Application to SaaS Application using web technology and now to Cloud Computing. The cloud computing is classified as Public Cloud, Private Cloud and Hybrid Cloud based on location. The different types of cloud offerings based on services they provide are IaaS, PaaS and SaaS. We are knowingly or unknowingly using the Cloud Computing from the time we begin to use E-Mails such as Yahoo mail, Google mail etc. The questions arise for most of us are whether the cloud is beneficial or not from the cloud provider's acuity and from the End-users point of view. To give the solution for these questions we are analyzing the different costs for the usage time of the powerful computer and comparing this cost amount with public cloud and private cloud from the End-users perception. The analysis is done using mathematical model. Based on the cost and productivity analysis we are proposing whether to use powerful computer or Public Cloud or Private Cloud. Under what condition Cloud is superior to having powerful computers and vice versa. We assume powerful computers may be used by individual users or small to medium size companies.

Keywords:--

Client-server, Cloud Computing

Tracking Theft Vehicle and Detecting it using GPS

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Abstract:--

At present most of the public people are having their own vehicle. Theft is happening on parking at some in secured places. The vehicles safety is extremely needed for vehicles parked in public places. We need to provide the security whenever there is any unauthorized people' using the bike, car, doors opening by giving horn by alarm. Another important feature is the vehicle cannot run for unauthorized persons the lock will not open. Vehicle tracking and locking system must be installed in the vehicle, to track the place and locking engine motor. The place where the vehicle is parked is identified using Global Positioning system (GPS) and Global system mobile communication (GSM). When the attempt of theft is identified, the responsible people send SMS to the microcontroller, and then microcontroller issue a control signals to stop the engine motor. Authorized person must send the password to controller to restart the vehicle. This is very secured, reliable and low cost.

keywords:--

Security, Vehicle tracking, Global positioning system (GPS), Global system mobile communication (GSM).

Enhancements in Privacy Preserving Internet of Things

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Abstract:--

Internet of things (IoT) has been applied to a greater extent to various kinds of new network settings. It is the latest web evolution which combines billions of devices maintained by different organisations and the people who are organizing and using them for their own purposes. IoT enabled methods provide extraordinary opportunities to solve internet-scale problems that have been too big and too difficult to tackle before. It can deal with privacy threats and Cyber Security that currently disrupt organisations and can potentially hold the data of whole industries and even countries for ransom. To realise its full potential, IoT should deal effectively with such threats and make certain the privacy and security of the information collected and distilled from IoT devices. Unfortunately, the traditional communication channel security cannot well satisfy the security and privacy requirements. This is because IoT solutions incorporate a variety of privacy and security solutions for protecting such IoT data. Therefore, it is a grand challenge in IoT to ensure end-to-end privacy across these three IoT layers. In this paper, we tackle the IoT privacy preservation problem by introducing a privacy preserving IoT Architecture, and also describe the implementation of an efficient proof of concept system that utilises all these to ensure that IoT data remains private. The proposed privacy preservation techniques employs multiple IoT cloud data stores to protect the privacy of data collected from IoT. Experimental evaluations are also provided to validate the performance and efficiency outcomes of the proposed privacy preserving techniques and architecture.

Keywords:--

Internet of things (IoT) privacy preserving cipher text access control secure outsource computation traceable revocable lightweight

Haptic Technology

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Abstract:--

The word haptic means "pertaining to the sense of touch" Haptic communication recreates the sense of touch by applying forces, vibrations, or motions to the user. The most sophisticated touch technology is found in industrial, military and medical applications. Training with haptics is becoming more and more common. Haptic technology is also widely used in teleoperation, or telerobotics. Haptic technology is an intuitive way for a human user to interact with a computer or other haptic device, and have that device display information back into the real world. Haptic technology has made it possible to investigate how the human sense of touch works by allowing the creation of carefully controlled haptic virtual objects. It provides the user with 22 kinds of touch sensations. This emerging technology promises to have wide reaching applications as it already has in some fields. These new research tools contribute to our understanding of how touch and its underlying brain functions work. By using haptic devices, the user can not only feed information to the computer but can also receive information from the computer in the form of a felt sensation on some part of the body. This is referred to as a haptic interface. In this field there are two different main technologies which may be primary in the near future Vibrotaction stimulation and Friction modulation techniques. Haptics enables the physically challenged (for e.g.: deaf and blind) to access applications or browse the internet or even play games on mobile devices. In video games, the addition of haptic capabilities is nice to have. It increases the reality of the game and, as a result, the user's satisfaction. But in training and other applications, haptic interfaces are vital of applying touch sensation and control to association with computer applications. Developers in this space are essentially on the ground floor of advanced technology.

Keywords:--

Haptic, Communication, Technology.

IoT Based Smart Obtrusion Circumvention in Crop Monitoring

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Abstract:--

As new technologies has been introduced and utilized in modern world, there is a need to bring advancement in the field of agriculture also. Various Researches have been undergone to improve crop cultivation and have been widely used. In order to improve the crop productivity efficiently, it is necessary to monitor the environmental conditions in and around the field. The parameters that has to be properly monitored to enhance the yield are soil health, weather conditions, moisture, temperature, etc., One of the major threats in crop monitoring is the animal obtrusion which destroys the crops to a great extent. Internet of Things (IoT) is being used in several real time applications. The introduction of IoT along with the sensor network in agriculture refurbishes the traditional way of farming. Online crop monitoring using IoT helps the farmers to stay connected to his field from anywhere and anytime. Various sensors are used to monitor and collect information about the field conditions. Animal obtrusion can be detected by image processing technique through web cameras which are placed around the field. Collectively the condition about the farm to the farmer through GSM technology.

Keywords:--

Image processing, IOT, Microcontroller, Sensors, Web cameras.

Autonomous Car for Able and Disable People

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Abstract:--

In this paper "AUTONOMOUS CAR FOR ABLE AND DISABLE PEOPLE", we consider the development of an autonomous car which would be of great help to all ages of people who can be able to read and write. It helps illiterate people too. It uses a several techniques to detect their encircling. Discovering Extend Using Light (DEUL) is used to build a cartograph and allow the car to "see" potential hazards. Real-route-detection algorithm will obtain source from the control instrument and reinforce these sources with data from digital road maps in order to provide a full workspace in which the planning takes place. For controlling the completed path, a newly developed Self-Tuning Controller (STC) will be used. Driverless vehicles use a range of sensors placed around the whole car, for ensuring hazards. On improving the safety there will be less risk of injuries, fatalities and disabilities caused by traffic accidents. The goal of the project is to develop a vehicle that can operate without human intervention within a crowded environment with little or no impact on the building or its inhabitants.

Keywords:--

Autonomous car, DEUL, Cartograph, Real-route-detection algorithm, STC

Anti-Fuzzy ideals in Boolean like Semi – rings

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Abstract:--

In this paper we introduce the notion of anti fuzzy ideals in Boolean like semi – ring R and also obtain some of their properties. Let R be a Boolean like semi – ring and let μ be a fuzzy set defined on R. Then μ is said to be a anti fuzzy ideal of R if $i)\mu(x-y) \leq \max\{\mu(x), \mu(y)\}$ ii)$\mu(ra) \leq \mu(a)$ $iii)\mu\big((r+a)s+rs\big) \leq \mu(a)$ $for\ all\ r, a, s \in R$.

keywords :--

fuzzy, boolean, semi – ring

Phytochemical Investigation of Pendulum murex. (Pedaliaceae)

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Abstract:--

Medicinal plants continue to be an important therapeutic aid for the ailments of humankind. The survey and documentation of medicinally important plants in each and every place is very much important for easy identification of local traditional healers, conservation and sustainable. The present study aims to screen the phytochemicals present, ash and extractive value and antioxidant value of the whole plant extract of Pedalium murex.(Pedaliaceae).The ash values of whole plant Pedalium murex is 9.87%. Samples have more water soluble ash than acid soluble ash. The ethanol extracts of the powder of Pedalium murex shows the presence of alkaloid, coumarin, quinone, saponin, steroids, tannins, glycosides, sugar, xanthoprotein.. The ethanol extract of whole plant showed strong antioxidant activity of inhibiting DPPH activity, when compared with standard ascorbic acid. In addition, the Murex whole plant found to be containing a noticeable amount of total phenols and flavonoids which plays a major role in controlling antioxidants. The total phenolic content and total flavonoid content of the methanol extract of whole plant Pedalium murex were found to be 0.88g 100g-1 and 1.01g 100g1 respectively.

Keywords :--

Medicinal plants,Pedalium murex,ethanol extracts, methanol extract

Environmental Quality Observing Using IoT Sensor Network

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Abstract:--

Environmental sustainability has the straight influence to the quality and sustainability of human lifetime. This subject has been argued recently in many worldwide forums. However, most people incline to neglect it because there are no dependable sources of information that is publicly accessible to build good environmental awareness. In fact, almost all human deeds will affect to certain range the quality of their environment. Unluckily, arranging such environmental monitoring systems is quiet relatively very costly as only some particular companies deliver such particular systems. This paper is a small footstep toward this worldwide issue to aid obtaining truthful ambient environmental constraints. The explanation is in the form of an Internet of Things (IoT) component that can be easily located in the required physical area. The results are intrigued in graphs to ease the users monitor the inclinations both locally and remotely. As the quantity values are deposited in the cloud, the graphs can also be retrieved via web to simplify people to get current ambient environmental information rapidly. Inside and outside deployments are likely, either static or mobile. The system has been tested around Tangerang. With the use of this IoT module, environmental quality awareness can be improved and so will sustainability and quality of human life.

Keywords:--

Environment Quality, Internet Of Thing, Embedded System, Monitoring, Web Cloud, Sensors Network.

Enhancing agriculture using LiDAR

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Abstract:--

LiDAR, acronym of Light Detection and Ranging is an optical remote sensing technology that can measure the distance to other features by illuminating the target with Light. LiDAR is an accurate surveying system that incorporates airborne scanning laser range finder, differential GPS, and Inertial Navigation System. The output of a LiDAR survey is a point cloud data giving the three dimensional coordinates of every point together with a number of attributes. LiDAR is a powerful tool that provides high resolution, three dimensional spatial information about the land. It can be used to identify areas for differential management from the generation of digital elevation models, vegetation models, and erosion control. The natural variability in soil, moisture levels and microclimate due to landscape features and variations in slope, aspect and elevation can be observed, measured and mapped out using LiDAR technology. LiDAR can be used to create three dimensional digital models of a farm and from these produce incredible accurate maps of the natural resources. All farmers should have a basic farm map showing infrastructure, elevation contours, drainage lines, etc. and with the current technology, all farm maps should be in a digital format. The recent development of geospatial PDF files provides low cost digital maps with embedded geographical coordinates. It provides the benefit of printing the maps at multiple scales and allows to measure distances, bearings and areas. Mobile devices with Pdf Maps can be implemented to record locations and farm activities. As LiDAR is essentially a survey tool, it can be used to generate accurate farm maps and then integrate the data with other government digital datasets. There is a clear benefit in using LIDAR to generate maps for erosion mitigation. . The existing dataset of captured LIDAR will degrade with time as vegetation grows or is removed and earthworks change the land surface. The dataset only has a benefit and value if it is used. To gather "dust on the shelf" simply because it is too expensive to be used is of no benefit to the State or farmers.

Keywords:--

Light Detection and Ranging (LiDAR),high resolution, three dimensional spatial information

An Efficient Multi-Characteristics Representation of Images for Heterogeneous IoTs

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Abstract:--

In present-day, as the growth of unrelated Internet of Things (IoT) technology, the unrelated IoT systems have been generally used in various fields, which play a vital role in the Internet. Heterogeneous IoT systems produce a large amount of data, enclosing images and videos. Representing these images is a significant and challenging task. Human recognition is reactive to structure and repetition, which defeat irrelevant materials by selecting a small number of elements by consideration. Visual consideration model was accepted in many literatures according to the human visual procedure. Visual salient characteristics can be extracted by the standard, which enclose color, texture, shape characteristics and image color outline notification. In the field of image processing, the text on analysis has wide attentions. There still exists some problems to be solved in the variety of text on based methods proposed, particularly it is difficult to describe the images with complex scenes from IoTs. This paper proposes a novel characteristic description and multi-characteristic representation method called diagonal structure. Five kinds of diagonal texts are defined by the color dissimilarities of diagonal pixels. Four types of visual characteristics are extracted from survey sub-graphs and united into 1-D vector.

Keywords:--

Characteristics extraction, Internet of Things, Image retrieval, Image representation

Estimation of Heavy Metals and Chemical Constituents in a Colonial Ascidian Didemum Psammathodes

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Abstract:--

The study aims at estimating the heavy metals and chemical constituents in the marine colonial ascidian Didemnum psammathodes. Accumulation of heavy metals like copper, cadmium, lead, arsenic, zinc and mercury were determined. Analysis of the heavy metal in the selected animal sample was performed by Atomic Absorption Spectrophotometer (AAS). Measurements were made using a hollow Electron Discharge Lamp (EDL) for copper, cadmium, lead, arsenic, zinc and mercury at wavelengths of 220.62 nm, 228.80 nm, 283.31 nm, 193.70 nm, 240 nm and 253.7 nm respectively. Chemical constituents were analysed by spectrophotometric methods. This study confirms that the risk of heavy metals contamination in the ascidian appears low when compare to high amount of phenols and flavonoids.

Keywords:--

Didemnum psammathodes, ascidian, heavy metal

Interpretation of Mining Elements using GIS

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Abstract:--

Mineral exploration companies use diverse types of data sets to search for new mineral deposits. Data sources vary from geologic maps, hyper spectral airborne and multispectral satellite images, and geophysical images to databases in many formats. GIS is an ideal platform to bring them together and deliver meaningful outcomes. GIS can help in many aspects of the mineral exploration activities: data collection, management, analysis, and reporting. Field geologists can now capture field data electronically using Arc Pad and global positioning system (GPS) receivers. Other data sets may be downloaded from the Internet. All of these data sets can be integrated, manipulated, and analysed using GIS. The advanced GIS and internet served GIS helped to understand the importance of GIS to represent the different things that happen in real life so that we can put it into the software to be able to analyse the information and make better decisions in our field of interest.

Keywords:--

Global Positioning System, GIS

Computer Aided Brain Tumer Localization Hand Humor Growth Model Genderation Based on Machine Planning Technique

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Abstract:--

In this project, we propose a proof of concept for the automatic planning of personalized radiotherapy for brain tumors. A computational model of brain tumor growth is combined with an exponential cell survival model to describe the effect of radiotherapy. The model is personalized to the Magnetic Resonance Images (MRIs) of a given patient. It takes into account the uncertainty in the model parameters, together with the uncertainty in the MRI segmentations. The computed probability distribution over tumor cell densities, together with the cell survival model, is used to define the prescription dose distribution, which is the basis for subsequent Intensity Modulated Radiation Therapy (IMRT) planning. Depending on the clinical data available first, we include the uncertainty in the segmentation process. We show how our method allows the user to compute a patient specific radiotherapy planning conformal to the tumor growth. The presented approach and its proof of concept may help in the future to better target the tumor and spare organs at risk.

Development of an Airborne Internet Architecture

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Abstract:--

The airborne Internet will function much like satellite-based Internet access. It functions without any time delay. The airborne Internet is used to compliment the satellite and ground-based networks. The conventional Internet access option is the major problem faced by airborne internet. The development is to provide aircraft to the ground, ground to ground and aircraft to aircraft communications in support of air traffic management, fleet operations, and passenger support services. An airborne Internet is a well-conceived architecture. The architecture is to enable the concept of operations envisioned for the 2025 timeframe. The architecture process provides a robust framework to add functionality, systems and equipment. It also describes the linkage to the existing National Airspace System. The major objectives are higher volume at non-radar airports, lower landing minimum at minimally equipped landing facilities, increased single crew safety and mission reliability, and integrated procedures and systems for integrated fleet operations. The all-round development and improvement are the key areas of research work performed in this paper.

Keywords:--

Internet, aircraft, airborne, architecture

Facial Expression Recognition Utilizing Local Direction-Based Robust Features for Music Play System

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Abstract:--

Emotion recognition plays a key role in interpersonal relationships. The ability to interpret facial expressions in the social environment allows people to anticipate intentions or situations and respond appropriately. The face recognition technology attracts more and more attention with people's growing interesting in expression information. Face recognition has practical significance; it has very broad application prospects, such as user-friendly interface between man and machine. Recently, ubiquitous healthcare systems have attracted a lot of researchers due to their prominent application the field of human computer interactions (HCI) The objective of this project is to analyze, interpret and propose an efficient model for emotions recognition. Emotion recognition from facial expressions is generally performed in three steps: face detection, features extraction and classification of expressions. In this project we implements face recognition techniques using Principal Component analysis (PCA) and Linear Discriminative Analysis (LDA). Once the facial expression of the user is classified, the user's corresponding emotional state is recognized. A number of songs from various domains pertaining to a number of emotions is collected and put up in the list. Each emotion category has a number of songs listed in it. The user's expression is classified with the help of PCA algorithm; songs belonging to that category are then played.

Key words:--

facial expressions,face recognition technology ,Principal Component analysis, Linear Discriminative Analysis

Toxic Effect of Chlorine on Selected Blood Parameters of the Fish Mystus Montanus

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Abstract:--

Presently, there is a steady increase in the application of unlimited dose of chlorine to control vectors of Dengue, Malaria, Chicken-guinea etc., in village water sources. To analyze the toxic effects of chlorine on selected hematological parameters of the fish Mystus montanus a study was conducted for 45 days. Chlorine increased the concentration of WBC and decreased the concentration of RBC and Hemoglobin in a dose dependent manner. At high dose of 0.132mg Cl/L, the WBC was increased to 38.69 % and the RBC and Hb were decreased to 35.44 % &27.93% respectively from the control group of fishes. Hemolysis and vacuolated RBCs were observed in all the experimental group of fishes. Addition of thiosulphate, prolonged aeration and substitute for chlorine could be used to overcome the problems caused by chlorine.

Keywords:--

Chlorine, Mystus montanus, Blood parameters, Toxic effects, Suggestive measures.

Land Cover Classification using Opponent Texture Pattern with Multi-Color Model Histogram.

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Abstract:--

Remote sensing image classification plays a vital role in a wide range of applications and classifies the multispectral remotely sensed image into various land covers such as urban, vegetation, forest, water etc. Feature extraction is an important step in multispectral remote sensing image classification before classifying the image. In the case of classification of remotely sensed images, color and texture models should have the capacity of capturing and discriminating even minute pattern differences. In this paper, features are extracted using opponent color texture pattern with different color space histograms. HSV and LUV color histogram and the opponent patterns in the feature space are used to train a random forest classifier. The performance can be evaluated based on several metrics such as accuracy, specificity, sensitivity and f-score. An IRS LIS IV orthorectified dataset is used as the input image for this experiment.

Studies on Natrum Muriaticum in Inducing Spawning, Growth and Biochemical Analysis in the Ornamental Fish, Poecilia Sphenops (White Molly)

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Abstract:--

Ornamental fish keeping and its propagation has been an important activity for many, which provide not only aesthetic pleasure but also financial openings. The industrial development of freshwater ornamental fish culture has been hampered by the lack of suitable live feed for rearing the fish at the various production stages. Recent studies reveal that a homeopathic medicine Natrum muriaticum is found to be effective in inducing spawning in fishes. Reproduction in fishes is regulated by external environmental factors that trigger internal mechanism into action. In the present study, Homeopathic medicine Natrum muriaticum used to induce spawning in the ornamental fish Poecilia sphenops. Black molly, Poecilia sphenops is the most popular of the domesticated variety of ornamental omnivourous and viviparous fish. The fishes were introduced into water containing Natrum muriaticum. A control was also maintained simultaneously. The times taken for spawning in control and experiment groups were compared. From the result, it is inferred that the homeopathic medicine Natrum muriaticum has advanced spawning in experimental group of fishes. There was a considerable change in protein, lipid, and carbohydrate level and ammonia excretion in experimental fishes. We conclude that quality of the water should be maintained for the successful spawning and proper growth of the fishes.

Keywords:--

Natrum muriaticum, Poecilia sphenops, Homeopathic and spawning.

An Analytical approach on Data Mining in Agri-Clinics- A Survey

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Abstract:--

"Most things except Agriculture can wait"was said by Jawaharlal Nehru. So to utilize the agriculture in a better way this paper handshake with the Information technology and establish Agri-Clinics which are envisaged to provide expert advice and services to farmers on various aspects like cropping practices, plant protection, crop insurance, post-harvest technology,clinical services for animals,feed and fodder management and crop prices to enhance productivity of crops and increase the incomes of farmers. The goal of this survey provides a review of different types of data mining approaches and problems being addressed in agriculture related fields. The agriculture related data are recorded but they are not digitized so they are integrated in standardized format which deals with big data that bridge the knowledge of the data to the yield estimation and gives an analytical approach to support decision making system and recommendations for farmers in agriculture related fields.

Keywords:--

Data mining, Classification, support vector machine, Regression, Agriculture, Big data

Spectral and biological characterization of N,N-diethyl-2-hydroxyethanaminium 5-(5-chloro-4,6-dinitro)-2,6-dioxo-1,2,3,6-tetrahydropyrimidin-4-olate hemihydrates

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Abstract:--

A new type of barbiturate (a pyrimidine derivative) has been prepared through one pot synthesis from the ethanolic solution of 1,3-dichloro-4,6-dinitrobenzene, pyrimidine-2,4,6 (1H,3H,5H)-trione and N,N diethylhydroxylamine. The mechanism of the formation of the reported barbiturate involves an intermediate sigma complex formation and proton abstraction reactions. The barbiturate has been characterized spectrally through (UV–VIS, IR, ^{1}H NMR, ^{13}C NMR, mass) and elemental analysis. Qualitative tests have been carried out to infer the presence of nitrogen and nitro groups and also chlorine atom in the barbiturate.The anticonvulsant activity of the complex has been studied. The complex uniquely dissolve in water freely possess high LD50 (>1500 mg/kg) and extraordinarily stable.

Keywords:--

1,3-dichloro-4,6-dinitrobenzene, pyrimidine-2,4,6(1H,3H,5H)-trione , N,N diethyl hydroxylamine Anticonvulsant activity Hypnotic activity

Astro-tracker weather detection via solar tracke

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Abstract:--

The most crucial issue that the world faces today is the energy crisis. Conventional energy resources are not only limited in nature but also are prone to environmental pollution. Since the dependency on conventional resources has lessened to a great extent, renewable energy resources are gaining more priority in the entire world. As a renewable resource, solar energy is rapidly gaining importance since the focus is on expansion of renewable energy uses. Solar cells convert sun's energy into electrical energy, but they are costly and inefficient. For increasing the efficiency of the solar cells and thereby reducing the cost, different mechanisms are applied. Therefore, a device for tracking sunlight is introduced: solar tracker, which makes use of solar panels. The most appropriate technology to enhance the efficiency of the solar panels to track the sunlight is by using microcontroller-based design methodology. Light dependent resistors (LDR) are used as the sensors for the solar tracker. The designed tracker has a precise and less complex control mechanism which has four LDRs. In this system, the weather conditions are being displayed to the users on their mobile phones by connecting the device with a Bluetooth module. Further improvisations may be done by using Wifi or WiMax technologies.

Keywords:--

Solar panel, sunlight tracking, Light Dependent Resistor (LDR), Microcontroller, Bluetooth module

Skin Lesion Classification Using GLCM Based Feature Extraction in Probabilistic Neural Network

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Abstract:--

Melanoma is the deadliest form of skin cancer. Incidence rates of melanoma have been increasing, especially among non-Hispanic white males and females, but survival rates are high if detected early. Due to the costs for dermatologists to screen every patient, there is a need for an automated system to assess a patient's risk of melanoma using images of their skin lesions captured using a standard digital camera. One challenge in implementing such a system is locating the skin lesion in the digital image. In Proposed method a novel texture-based skin lesion segmentation algorithm is proposed. And classify the stages of skin cancer using Probabilistic neural network. Because in skin lesions lots of stages are there so probabilistic neural network will give better performance in this system. The proposed framework has higher segmentation accuracy compared to all other tested algorithms.

Keywords:--

TD Algorithm, TDLS Algorithm, K-nearest neighbour, PNN.

Study of Temporal Data Mining Applications and Techniques

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Abstract:--

Data Mining is the process of mining patterns in large databases. Temporal Data Mining (TDM) is the key area to mine the sequence patterns of data. TDM is a rapidly evolving area of research and deals with extremity information from temporal data with time factor. The application of TDM ranges from the prediction of customer behaviour, marketing, medical, communication, agriculture, weather forecast, finance., The techniques involved in TDM are Apriori, Classification, Clustering, GSP, SPADE and PrefixSPAN. This paper focuses on the area of applications and variety of techniques involved and guide for the selection of applications with appropriate techniques.

Keywords:--

TDM, GSP, SPADE, Prefix SPAN.

Fingerprint and Iris Biometric Controlled Smart Banking Machine

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Abstract:--

This paper describes a system that replaces the ATM cards by the physiological biometric fingerprint and iris authentication. Also, there is serious debate on the relevance of ATM technology as most countries in the world are moving away with separate card, but, this project breaks that through the user's adhaar number. This Project also presents with a new feature extraction based system for detecting the fake paper currency in a depositing a money process.

Keywords:--

fingerprint, authentication ,feature extraction

Scalable Map Reduce Model for Aggregating the Data in the Cloud

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Abstract:--

Scalability depends upon the nature of the problem and the algorithm which gives solution to the problem. Load balancing balances the load between different virtual machines so that performance of the cloud can be improved by removing the load disparity among the Virtual Machines. Load balancing works well for the scalable Application. Improperly Scaled application will behave in an unpredicted manner. The resources such as Ram, CPU disk etc. may increase or decrease depending upon the need of the application so the resources should be allocated preciously. This can be achieved by effectively scaling the application. Scalable Application decreases the costs as the costs are calculated based on the usage of the resource. To achieve the best scalable application in cloud there is a need for a programming model which is highly fault-tolerant for the distributed file system such as GFS. In this paper we analyze the selected problem and the solution is framed based on the Map Reduce Programming Model. The efficiency of the scalability is studied through Parallel efficiency calculation. Based on the Parallel efficiency calculation effective Scalable Map Reduce Model is proposed.

Keywords:--

Scalability, Parallel efficiency, Distributed file System, GFS, Map Reduce, cloud.

Integration of WSN to WOT: Security Perspective

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Abstract:--

Wireless Sensor Network (WSN) is ordinarily used to gather physical data using sensors. WSN play a vital part in the Internet of Things (IoT) vision. WSN is rising as a noticeable component in the middleware connecting together the Internet of Things (IoT) and the Web of Things (WoT). This paper examined the security issue of integration between WSN and WoT, aiming to shed light on how the WSN and WoT security issue are understood and applied. This paper introduces security perfective of integration WSN to WoT which offers capabilities to identify and connect worldwide physical objects into a unified system. As a part of the integration, serious concerns are raised over access of personal information pertaining to device (smart thing) and individual privacy. The motivation of this paper is to summarize the security threats of the integration and suggestion to overcome the threat.

Keywords:--

Wireless Sensor Network, sensors, Internet of Things, Web of Things.

Application of Classification Algorithms for Disease Diagnosis using Big Data Analytics.

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Abstract:--

A numerous amount of data is generated in healthcare sector and mining of those data yields good results. It will also be helpful in diagnosing a particular disorder or a disease and also helps in predicting the future of the disease occurrence. Various classification algorithms in data mining has been used in research to predict a particular disease. In this paper an implementation of support vector machines using fruit fly optimization and Naïve bayes classifier has been used to predict the existence of a particular disorder. The experimental study has been conducted using Orange tool and the SVM algorithm yields better result than Naïve bayes Classifier in terms of accuracy and speed.

Zerohop Distributed Hash Table

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Abstract:--

Hash tables use more structured key-based routing in order to attain both the decentralization of Freenet and gnutella, and the efficiency and guaranteed results of Napsterlevels, and in future come with accurate measure of delivering millions of nodes and billions of threads of execution. A distributed hash Distributed table (DHT) is a class of storage decentralized distributed system that provides a lookup service similar to ahash table: (key, value) pairs are stored in a DHT, and any participating node can efficiently retrieve the value associated with a given key. DHTs form an infrastructure that can be used to build more complex services, such as anycast, cooperative systems. This allows a DHT to scale to extremely large numbers of nodes and to handle continual node arrivals, departures, and failures. Distributed hash tables use a more structured key-based routing in order to attain both the decentralization of Freenet and gnutella, and the efficiency and guaranteed results of Napster. The primary goal of ZHT is to provide excellent storage systems have availability, fault tolerance, high throughput, and low latencies.

RFID Authentication Schemes for Internet of Things (IoT) In Healthcare Domain Using Elgamal Elliptic Curve Cryptography

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Abstract:--

Internet of Things (IoT) has materialized as one of the greatest powerful communication medium of the 21st century. In this environment, all matters in our day today life become part of the Internet, because of their communication and computing competencies which allow them to communicate with other objects. In the healthcare domain, IoT includes numerous kinds of inexpensive sensors that allow aging people to adore medical healthcare wherever, any time. Radio-frequency identification (RFID) is one of the greatest important technologies used in the IoT as it can stock sensitive data, wireless communication with additional objects, and identify or track objects automatically. To fulfil the various security requirements of RFID technology in IoT, many RFID authentication systems have been proposed earlier. In recent times, ElGamal elliptic curve cryptography (EECC)-based RFID authentication schemes have involved a lot of responsiveness and have been used in the healthcare domain. In this proposed method, the number of replication and adding operations in the encryption process has been reduced. The improved method uses the hexadecimal ASCII value to signify each character. The decrease of this number is a key point in the transformation of every character into an affine point on the EC. This representation reduces points doubling and addition which are required to transform the characters into points on the elliptic curve. As a consequence, speeding up the computations can be attained.

Keywords:--

Internet of Things (IoT), ElGamal elliptic curve cryptography (EECC)Radio-frequency identification (RFID),elliptic curve

Heart Disease Prediction System using Data Mining Techniques

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Abstract:--

Heart disease is the most common disease in the existing era. Most of the heart patients are not affordable to pay the treatment cost. Hence we introduce a Heart Disease Prediction System (HDPS) to diagnose the heart disease earlier. Data mining methods are introduced for the construction of HDPS. In health care domain, some systems use huge healthcare data in diverse forms such as images, texts, charts and numbers .But they are hardly visited and are not mined. This problem can be evaded by presenting HDPS which would improve medical care and it can also decrease the costs. The arrangement can handle complex queries for detection of heart disease and therefore help to make intelligent medical decisions. This paper introduces a new HDPS, which is based on three different data mining techniques. The several data mining methods used are Naive Bayes, Random Forest, Decision tree (J48) and WEKA API. It can identify the likelihood of patients getting a heart disease by using medical profiles such as age, sex, cholesterol, blood pressure and blood sugar. Also, the performance of this system is evaluated by calculation of confusion matrix. This helps to calculate accuracy, precision, and recall. The experimental results prove that the system provides high performance and better accuracy.

Keywords:--

HDPS, WEKA API, Random Forest, Naïve Bayes, J48.

A Survey on Predicting the Heart Disease Using Data Mining Method: SVM

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Abstract:--

In Medical field, the prediction of heart disease in early stage has been a challenging one. The main thing of this is to predict the survival of CHD (Coronary Heart Disease) patients using certain data sets. Considering the ever increasing growth of heart disease, many researchers can be adopted various kinds of data mining methodologies. Based on different data sets, data mining technique available namely Support vector Machine (SVM) is employed to develop the prediction model. Here, the system can designed to discover the condition to find the risk level of patients based the parameters about their health. Finally, the result can show that SVM gives a best accuracy in predicting the heart disease.

Keywords:--

Coronary Heart Disease,data mining,Support vector Machine

Intuitionistic Q-Fuzzy Bi-Ideals and Intuitionistic Q-Fuzzy Strong Bi-Ideals of Near-Rings

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Abstract:--

The Concepts of Intuitionistic fuzzy set was introduced by Atanassov(1986) as a generalization of the notion of a Intuitionistic Q-fuzzy bi-ideal and intuitionistic Q-fuzzy strong bi-ideal of a near-ring and obtain the characterization of a strong bi-ideals in terms of a Intuitionistic Q-fuzzy strong bi-ideals of a near-ring. We establish that every Intuitionistic Q-fuzzy left N-subgroup or Intuitionistic Q-fuzzy left ideal of a near-ring is an Intuitionistic Q-fuzzy strong bi-ideal of a near-ring and also we establish that every Intuitionistic Q-fuzzy left permutable fuzzy right N-subgroup or Intuitionistic Q-fuzzy left permutable fuzzy right ideal of a near-ring is a Intuitionistic Q-fuzzy strong bi-ideals of a near-ring. But the converse is not necessarily true as shown by an example. Further, we discuss the properties of Intuitionistic Q -fuzzy bi-ideal and Intuitionistic Q -fuzzy strong bi-ideal of a near-ring and provide example. Throughout this paper N will denote a right near-ring unless otherwise specified.

Antibacterial and Antifungal Activities of Al-Zn-Cu Mixed Oxide Nanoparticles

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Abstract:--

Al-Zn-Cu mixed oxide nanoparticles was synthesized via sol-gel method by maintaining the pH around 8. Antibacterial activity of mixed oxide and cerium oxide was evaluated against 3 bacterial strains by agar diffusion method. The results revealed that the mixed oxides was moderate activity against all the listed bacteria whereas, cerium oxide showed against Klebsiella only. Thus synthesized mixed oxide possesses improved antibacterial activity than cerium oxide. The zinc oxide possesses low activity against Pseudomonas aeruginosa (10 mm) and E.coli. The antifungal activity tests were carried out by diffusion method for the mixed oxide and cerium oxide . Both cerium and mixed oxides showed moderate activity against Candida albicans whereas, both showed least activity against Candida parapsolisis. Thus, the antimicrobial activity of the synthesized mixed oxide showed moderate activity against the three bacterial and two fungal strains. It possesses good antimicrobial activity. Hence, the mixed oxide could be used as a good redox catalyst and further suggest for medicinal applications.

Keywords:--

Al-Zn-Cu mixed oxide, antibacterial activity, Klebsiella, Pseudomonas aeruginosa, E.coli, antifungal activity.

General Retinal Vessel Segmentation in Bright Lesions Using Regularization-Based Differential Concavity Modeling

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Abstract:--

The morphological variations of retinal blood vessels are significant signs that are used to identify and monitor the development of various diseases. Numerous retinal blood vessel segmentation methods have been presented, which have revealed acceptable results. Identifying blood vessels in retinal images with the occurrence of bright and dark lesions is a exciting unexplained problem. In this proposed work, a novel concavity modeling is proposed to handle both healthy and unhealthy retinas concurrently. The experimental results proved that the proposed method regularly yields the best performance over existing methods on the abnormal retinas and its accuracy overtakes the human observer, which has not been attained by any of the state-of-the-art benchmark methods. Above all, the proposed method shows remarkable performances not only on healthy retinas but also on a mixture of healthy and pathological retinas.

Keywords:--

Retinal vessel segmentation, retina image, multi-concavity modeling, perceptive transform, regularization, structurally differentiable plan.

(G, D) – Number of Fan Graph

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Abstract:--

A subset D of $V(G)$ is said to be a (G, D)-set of G if it is both a dominating and a geodetic set of G. The minimum cardinality among all (G, D) set of G is called the(G, D) number of G and is denoted by $\gamma_G(G)$. In this paper the (G, D) number of middle graph, total. Graph of Fan graph, and join of two Fan graph are calculated and compared.

Automatic Tuberculosis Detection Based On Multiple Instance Learning Classifier From The X-Ray Images

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Abstract:--

The major advantage of Multiple-Instance Learning (MIL) applied to a Computer-Aided Detection (CAD) system is that it allows optimizing the latter with case-level labels instead of accurate lesion outlines as traditionally required for a supervised approach. In previous work, a MIL-based CAD system can perform comparably to its supervised counterpart considering complex tasks such as chest radiograph scoring in tuberculosis (TB) detection. However, despite this remarkable achievement, the uncertainty inherent to MIL can lead to a less satisfactory outcome if analysis at lower levels (e.g., regions or pixels) is needed. This issue may seriously compromise the applicability of MIL to tasks related to quantification or grading, or detection of highly localized lesions. In this project, we propose to reduce uncertainty by embedding a MIL classifier within an Active Learning (AL) framework. To minimize the labeling effort, we develop a novel instance selection mechanism that exploits the MIL problem definition through one-class classification. We adapt this mechanism to provide meaningful regions instead of individual instances for expert labeling, which a more appropriate strategy is given the application domain. In addition, and contrary to usual AL methods, a single iteration is performed. To show the effectiveness of our approach, we compare the output of a MIL-based CAD system trained with and without the proposed AL framework. The task is to detect textural abnormalities related to TB. Both quantitative and qualitative evaluations at the pixel level are carried out.

Evaluation of Anti-inflammatory Activity of Whole plant of Caralluma umbellata Haw. (Apocynaceae) in Albino Rats.

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Abstract:--

Vascular tissues respond as an inflammation to adverse stimuli like pathogens, bruised cells or an irritant. An inflammation manifests itself as redness, swollen joints, pain at joints, stiff joints and impaired joints. Currently inflammation is treated by NSAIDS. However, drugs used to treat inflammation can potentially lead to enhanced risks of blood clotting which in turn can end up fatal heart attacks or strokes. This scenario has hence necessitated a search for alternate drugs derived from medicinal plants. Their chemical diversity also make them rich and possible sources of drugs without accompanying adverse side effect. Therefore a study in this direction will be both rewarding and unfulfilling. The objective of this study was to evaluate the anti-inflammatory activity from the ethanol extract of whole plant of Caralluma umbellata in carrageenan induced paw edema in Wistar Albino rats. This study was compared to a positive control drug, indomethacin. The ethanol extract was given in a concentration of 200 and 400 mg/kg body weight. Ethanol extract of C. umbellata whole plant with a concentration of 400 mg/kg b.w. showed maximum (85.44%) inhibition on carrageenan induced rat paw edema at 3 rd hour. The effect was significantly (p<0.001) higher than that of the standard drug indomethacin (84. 78%). From the result, it can be concluded that the antiinflammatory activity of C.umbellata ethanol extract of whole plant may be due to the presence of secondary metabolites in the extract of whole plant may be due to the presence of secondary metabolites in the extract.

Key Words:--

Caralluma, anti-inflammatory activity, carrageenan, indomethacin

Pulmonary Solid / Sub Solid Nodule Classification in Thin Slice Ct Images Using SVM

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Abstract:--

Machine learning techniques used in diagnosing cancerous lesions in medical images. The phenotype features of the pulmonary nodule in CT images are important cues for the malignancy prediction. This can improve radiologist make decisions which are difficult to identify, improving the accuracy with efficiency. Deep Learning or hierarchical learning as a major area of machine learning in the field of medical imaging hopefully faster and gives best results. Using parallel computing techniques speed up matrix operation with more parameters. Compared to the conventional machine learning methods deep learning has shown a superior performance in visual media.In this study we develop EXHOG descriptor to characterize semantic features in deep convolutional Neural Network.SVM classifier finds the nodule types with richer accuracy from LIDC lung medical image dataset.

Keyword:--

Deep Learning, HOG, EXHOG, SVM

QPSK and 32-Apsk Based Non-Linear Distortion Cancellation in Satellite Forward Link

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Abstract:--

The extension of second generation Digital Video Broadcasting (DVB-S2X) standard for the satellite broadcasting and unicasting is designed using low complexity equalizer that performs non-linear distortion cancellation for the application at the user terminal based on QPSK and 32-APSK in satellite forward link. The channel is modeled including the non-linear TWTA characteristics, input-multiplexing (IMUX) and output-multiplexing (OMUX) filter responses at the satellite transponder, and the phase noise at the user terminal targeting applications for High Throughput-Satellite (HTS) systems. The requirements of satellite communication can make 32-APSK more suitable modulation scheme than QPSK with high quality end-to-end-transmission. Their performance is analyzed through constellation diagram. These advances enable the shift towards more bandwidth-demanding applications and services, the adaptation to traffic demand across the coverage area, and the decrease of the cost per transmitted bit.

Keyword:--

DVB-S2X, TWTA, 32-APSK, IMUX, OMUX

Coronology of Indian History

Dr.R.Shani Ruskin., Assistant Professor in History, Providence College for Women, Coonoor , The Nilgiris

Abstract:--

The History of India begins with the Indus valley civilization and the coming of the Aryans. These two phases are generally described as the Pre-Vedic and Vedic periods. The earliest literary source that sheds light on India's past is the Rig Veda. It is difficult to date this work with any accuracy on the basis of tradition and ambiguous astronomical contained in the hymns though the Ancient city of Harappa was known to exists as early as 1842CE, its archaeological significance was ignored and the later excavations corresponded to an interest in locating the probable sites referred to in the great Indian epics.

Keyword:--

Indus valley civilization, Pre-Vedic and Vedic periods, Ancient city of Harappa

Titles and Different Names of Delhi Sultans and Mughal Emperors

Dr. T.A Femila., Assistant Professor, Department of History, Womens Christian College, Nagercoil.

Abstract:--

Everyone in this world will have their own name and character. A name gives us an identity. We all know each other and identify each other with their name. Each and every one has their own name given by their parents or by the family members. A name means a lot; it helps us to distinguish between each other very easily. Every name has its own meaning. A person doesn't have a single name which is given by their parents; they gain many nicknames, special names and titles. These are given in accordance to their character and achievements. These nicknames and titles go viral and spread faster than their original names. Usually a name is given to a person because of some reason, because of their deeds and because of their special qualities. If a person is void of a name, he loses his identity. Identity is very important for a person to live. Identity is given by the name that he has. This paper portrays some different names acquired by the kings and emperors by their character, activities and achievements.

Keyword:--

Name Identities, Delhi Sultans, Mughal Emperors

Economical progress under the Christian missionaries in the Kanyakumari District

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Abstract:--

Economical progress under the Christian missionaries in the Kanyakumari district was notable one in the history of economic progress especially among the women of the Kanyakumari District. Lace industry was the cottage industry which was introduced by missionaries who care for the economic enrichment of the people of Kanyakumari District. It had its own significance in the promotion of economy in the society. Any how it is worthy to see that the LMS was the pioneer in the Kanyakumari District. Its advent marked the turning point in the economic history. The work of the lace was made up of many varieties of fine thread.

Keyword:--

Economical progress, Christian missionaries, Kanyakumari district, Lace Industry, Cottage Industry

Warli Tribe Paintings

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Anil T.N., MA history, Scott Christian College(Autonomous), Nagercoil.

Abstract:--

The Warli tribe who lives in mountain and coastal areas of in and around Maharashtra and Gujarat states. Warli are an indigenous tribe. They have such a significant contribution to this world, that in the field of Art. We are here to present an interesting field of Warli Art, that is the Warli paintings. The Warli painting, still carrying a tradition stretching back to 2500 or 3000 BCE. The world wide population of Warli Art is established only through the medium of Warli paintings.

Keyword:--

Wali Tribe, Art, Painting

Design of Wireless Passive Optical Communication Network Based on Fusion of Fiber to the X Architecture

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Abstract:--

The steadfast increase in the demand for internet services had led to the generation of stupendous traffic in the communication networks, which persuades the need for the implementation of the next generation networks with high data rate for reliable communication. Optical communication can be a solution to this problem which can provide communication with high bandwidth. The Wavelength Division Multiplexing in Passive Optical Network is preferred to be advantageous with low investment and maintenance cost. This work aims at identifying the best type of network by building a fictitious environment, analyzing the Fiber to the X architecture with respect to various performance measures such as Bit Error Rate(BER), Eye diagram to decide the most preferable and optimal network for that environment using simulation software. The simulation results with BER of 10-9 for the worst case and zero for the best case have been obtained. The eye diagram shows wider opening as the BER decreases. These results justify that the network is feasible and can be implemented in real cases.

Keyword:--

Passive Optical Network, Fiber to the X, Wavelength Division Multiplexing , BER, Eye diagram.

Water level monitor and control using ultrasonic transceivers

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J.Vinod., III EEE year , Kamaraj College of Engineering and Technology, Virudhunagar, Tamil Nadu

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Abstract:--

Water Conservation, being the need of the hour, a simple, low cost product to perform the dual function of measuring water level in water tanks and automated controlling of water pumping motor to avoid overflowing can be of a great use. An ultrasonic transceiver with a rating of 5V capable of transmitting and receiving ultrasonic signals for liquid level gauging is used. The elapsed time between the transmission of a pulse and the reception of an echo pulse reflected from the surface of the liquid is being measured. The simple formula of distance=speed *time is used for the distance manipulation based on the recorded time. The ultrasonic wave is sent at a frequency of 40kHz. The speed of sound wave in air being 340 meter/sec is the constant value used in the formula. Arduino UNO board is used as a controller for distance calculation with the time of travel of sound wave as input signal. The water level being manipulated by Arduino is indicated in 16 x 2 LCD display. After monitoring the water level in the tank, a relay driver is used to switch on/off the motor for pumping action.

Mother Annammal – A study

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R.R. Shalini., M.Phil Scholar , Department of History, Scott Christian College (Autonomous) Nagercoil.

Abstract:--

Rev. Mother Annammal was born in 1836 at Varaganeri, Palakarai in Tiruchirapalli, Tamil Nadu, India. Her father is selvanayagam and her mother is Arulayaiammal. The family of Rev. Mother Annammal was fairly rich and belongs to a high vellala caste. Her father was a tradesman. The parents of Rev. Mother Annammal were devoted catholic and she was brought up in the faith. In the age of 17 she got married and her husband was a victim to the dreadful disease Cholera. He died after six month of marriage life with Annammal. Being a widow at the age of twenty she was inspired to become an instrument of God. Her mission was extended to the poor, welfare of the widows and the illiterate of Thrichirappali. The sacrificial life lead her to the glory. Mother Annamal who has been declared "servant of God "on 22 April 2017.

Keyword:--

Mother Annammal, high vellala caste, widow, mission work, servant of God.

The Nilgiri Mountain Communication and Transport

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R.DhanishFathima., Research Scholar, Bharathiyar Unirversity, Coimbatore.

Abstract:--

In the past the natives of The Nilgiri's had their own well recognized paths, passed and tracks to end from the plains below. The first European to set foot on the hills Father Finicio claimed up the Sundapatti pass from Mulli to Melur in 1602. The track was later named Sullivans gate after he improved it around 1826. Roads which are not classified as panchayat, village or than roads with reference to their location either in the village panchayats or the town panchayats notified under the Tamilnadu panchayat act 1958. Now the Highways and Rural works Department is incharge of planning design construction and maintenance of roads and bridges in Tamilnadu. The Nilgiri Mountain Railway was opened for traffic only up to Coonoor from Mettupalayan in June 1899, and was managed by a British firm the Madras Railway Company under an agreement with the Government of Madras, it was later extended to Ootacamund. The Nilgiri mountain railway is the most Authentic and original rack and adhesion railway in the World.

Keyword:--

Nilgiri mountain, Communication, Transport, Road, Railway

Growth, Structural, Optical and Mechanical analysis of L-Proline Single Crystals

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Dr.A.Syed Mohamed., Associate prof, Department of Chemistry, Sadakathullah Appa College,Tirunelveli, Tamilnadu,India.
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Abstract:--

Nonlinear Optics (NLO) is one of the most attractive fields of current research in view of the applications in the areas such as laser technology, optical communication and data storage technology. The NLO materials will be the key elements for future photonic technologies based on the fact that photons are capable of processing information with the speed of light. Proline is a very important amino acid because of its unique conformation which may affect the structure of proteins, in particular collagen. The present study concentrate on the growth of L-Proline crystal by slow evaporation solution growth technique and its characterization along with its optical properties is reported. The L-proline crystal was harvested after a period of 20 days. The crystal structure of L-proline (C5H9NO2) has been determined by X-ray diffraction methods. It crystallizes in the orthorhombic crystal system with space group P212121, with unit-cell dimensions of a=11.64, b=9.037, c=5.260. The functional groups present in the grown crystal were identified by FT-IR spectral analysis. The transparency range of the crystal was estimated from UV-VIS spectrum . The band gap was found to be 5.8 eV from UV-Visible spectrum. Mechanical property of the grown L-proline crystal was studied by Vickers microhardness tester and the load dependent hardness was measured.

Keyword:--

L-Proline; slow evaporation technique; XRD; FT-IR; UV-VIS spectrum;

A Recent Survey of Lossless Image Compression Techniques

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Abstract:--

Image compression in medical image processing is a most significant technique which reduces the burden of storage and transmission time over the network with less degradation in the visual quality and without information loss. The image compression techniques are classified into lossy compression and lossless compression. Lossless image compression has a vital role in the field medical image application. Medical image processing is an idea to improve the quality of medical imaging like X-Rays, Computed Tomography (CT), Magnetic Resonance Imaging (MRI), Positron Emission Tomography (PET), Ultrasound, and Single Photon Emission Computed Tomography (SPECT). This shows visual representation of inner body structure. This paper describes various lossless compression techniques such as DWT,IWT,EZW, WDR, ASWDR, STW,SPIHT,JPEG2000, CALIC, LZW, RETINEX, DPCM, CREW, Vector Quantization, Huffman Coding, Arithmetic Coding, Run Length Coding Polynomial Approximation to achieve good compression ratio and the performance measurements such as CR,PSNR,MSE,SSIM, Normalized Cross Correlation, Normalized Absolute Error.

Keyword:--

Compression, SPIHT, Polynomial Approximation, Entropy Coding.

Sida acuta Bunn F plant: Emerging as Green Source toward Biosynthesis of Silver Nanoparticles and their promising antibacterial activity

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Abstract:--

There is an increasing commercial demand for nanoparticles due to their wide applicability in various areas such as electronics, catalysis, energy, and medicine. Metallic nanoparticles are traditionally synthesized by wet chemical techniques, where the chemicals used are quite often toxic and flammable. In this work, we describe a cost effective and environment friendly technique for green synthesis of silver nanoparticles through the extract of Sida acuta leaf as reducing as well as capping agent. The effect of process parameters on synthesis of AgNPs from sida acuta leaf extract such as AgNO 3 concentration (molarity), extract volume percent, sunlight exposure time and temperature were studied. UV-Vis spectroscopy showed the SPR peaks for AgNPs using sida acuta leaf extract were between 420-490nm. Atomic force microscopy (AFM) showed the formation of homogeneous distribution of spherical silver nanoparticles with an average size of 29nm. The antibacterial activity of AgNPs shows the zone of inhibition is higher in salmonella typhus followed by klebsiella pneumonia and Escherichia coli when compared with standard ofloxacin.

Keyword:--

Sida acuta, UV-Vis, FTIR, XRD, AFM, ofloxacin.

An efficient approach for the liver lesion detection from the contrast enhanced US images

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Abstract:--

An automatic classification method based on machine learning in Contrast-Enhanced Ultrasonography (CEUS) of Focal Liver Lesions (FLLs) using the contrast agent Sonazoid™. This method yields spatial and temporal features in the arterial phase, portal phase, and post-vascular phase, as well as max-hold images. The lesions are classified as benign or malignant and again as benign, hepatocellular carcinoma (HCC), or metastatic liver tumor using support vector machines (SVM) with a combination of selected optimal features. The selected features in the SVM indicate that combining features from the three phases are important for classifying FLLs, especially for the benign and malignant classifications. The experimental results are consistent with CEUS guidelines for diagnosing FLLs. This research can be considered to be a validation study that confirms the importance of using features from these phases of the examination in a quantitative manner. Additionally, the experimental results indicate that for the benign and malignant classifications, the specificity without the post-vascular phase features is significantly lower than the specificity with the post-vascular phase features. We also conducted an experiment on the operator dependency of setting regions of interest and observed that the intra-operator and interoperator kappa coefficients..

Women's Safety App in Mobile Application

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Abstract:--

The safety of women is a concern of need in our country and others. The primary issue in the handling of these cases by the police lies in constraints preventing them from responding quickly to calls of distress.

These constraints include where the location of the crime has occurred, and not knowing if the crime has occurred at all: at the victim's end, reaching the police for assistance is a challenge. To help in the avoidance of these constraints, this paper tells about a mobile application called WoSApp (Women's Safety App) which provides women with a reliable method to place an emergency call to the police.

The user can easily and firmly trigger the calling function by just shaking her phone, or by explicitly interacting with the user interface of the application through a simple press of a PANIC button on the screen. A message containing the geographical location of the user and the contact details of a pre-selected list of emergency contacts, is immediately sent to the police. This paper tells the application, its development, and its technical implementation.

Secure Data Transmission Using Bit coin Protocol

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Shilpa.A., I M.E, Department of Computer Science and Engineering, Sri Krishna College of Engineering and Technology Kuniamuthur, Coimbatore.

Dr.Sujatha.K., Associate professor, Department of Computer Science and Engineering, Sri Krishna College of Engineering and Technology, Kuniamuthur, Coimbatore.

Abstract:--

Sensor Network history suggests that clustering is one of the most effective techniques to increase the performance of deployed wireless sensor networks. But along with the implementation of clustering in WSNs; it is necessary to resolve numerous challenges like secure and efficient data transmission, providing high-level security against variety of security attacks and aggregation of data. It is a challenging task to address all the challenges using a single framework or protocol. However, already few schemes like Sec-Leach, SET-IBS and SETIBOOS, SET DTA has proposed to resolve these issues but due to invention of new attacks security has remained an unresolved issue. For a secure and efficient data transmission and to improve the security a time stamp based Bitcoin like protocol is implemented. This protocol which is used for cash transaction in banking System here it is implemented for secure data transmission in a real time network using Elliptic Curve Diffie Hellman (ECDH) algorithm. Using a direct LAN connection data is transmitted from one node to another node, it will reduce the complexity of the network. Bitcoin further reduce the computational overhead for protocol security and detects the attacks, which is crucial for wireless sensor networks. Secure data transmission is a critical issue in wireless sensor networks. To improve that Bitcoin is implemented. Compared to Existing system Bicoin has high security and consistency towards the attacks.

Keyword:--

Networks, Bitcoin, Elliptic curve cryptography, Attacks, Security.

An Inconvenient Truth about the Warming Trend

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Abstract:--

Climate change is still, arguably, the critical and controversial issue facing the world in the twenty-first century. The Earth's climate is changing, but how has it changed so far? Of all the effects of climate change, the most obvious one has been the Global warming. Global warming is the increase in the temperature of Earth's surface as well as its atmosphere. About 56 million years ago, an extreme global warming event occurred. Scientific research says that it was driven by massive CO2 emissions from volcanoes. It lasted for around 150 thousand years and global temperatures increased. It then became normal which gave birth to ice age. During recent years, the cycle has started again. It was observed that the current global warming cycle began in the early mid-19th century. Now, the common view is that current global warming rate will increase or accelerate. Recent researchers have found that the current global warming cycle will reach its peak by the year 2100.Many believe that Global warming is due to the human activities but it is not so. The severity of the current Climate Change "crisis" has been blamed almost exclusively on man-made carbon-dioxide emissions and that the change is permanent. However, Global warming is merely a natural cyclic process and man and his activities have no role in enhancing or reducing the cyclic process.

Organization and Administration of the YMCA

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Abstract:--

Transparent computing utilizes data and software—from the OS to applications to user data—that are stored on servers. Transparent Computing Security Architecture (TCSA), which builds user-controlled security for transparent computing by allowing the users to configure the desired security environments on demand. The intent of the TC program is to develop basic technologies that are separable and usable in isolation (e.g., within a given software layer/application environment, such as web middleware), while exploring the best way to integrate multiple TC technologies in an experimental prototype. The major characteristic of Transparent Computing involves two separations. They are the separation of software stack and hardware platform, and the separation of computing and storage. The system lets users demand heterogeneous OSes and applications upon them from centered simple servers, similar to choose different TV channels in daily life. As this computing paradigm is more widely used in the society, its security feature and advantages will become more and more attractive. Problems TC is trying to solve Terminal runs more quickly Storage efficiency Security, manageability and low-cost Device-oriented to user-oriented A way to SaaS - Software as a Service

Keyword:--

Organization, Administration, YMCA.

Implementation of Sniffers to Detect the Lost Mobiles

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Abstract:--

The sniffer is a small base station. Transceiver section is seen in the sniffer. The frequency of the current cell and the frequency of the sniffer is different in which the operation of detection is being carried out. Some of the main important things are the frequency that has to be generated by the transceiver section is around 900MHz range which is a VHF range and it is necessarily to design the oscillator circuit for that frequency range. While designing the circuit of 900MHz frequency, it is important to provide cooling to the circuit. In the design of the sniffer, proper design of base station is important. Low power transmitter is seen in mobile phones and base station.. This implementation helps in the process of reducing the interference of the device and with the devices that are in the other cells.

A survey on privacy issues in intrusion detection systems

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Abstract:--

Intrusion Detection Systems (IDSs) detect potential attacks by closely monitoring activities in computers and networks. This monitoring is performed by collecting and then analyzing data pertaining to organizations and users. The data is collected from different sources – such as system log files or network traffic. The data may contain private information. Therefore, data analysis by an IDS can raise multiple privacy concerns. Recently, building IDSs that consider privacy issues in their design criteria in addition to classic design objectives like IDS' performance and precision, has become a priority. Our article proposes a taxonomy of privacy issues in IDSs which is then utilized to find new challenges and problems in the field. In this article, we classify privacy-sensitive IDS data as built-in, input, and generated data. Using the taxonomy, Research prototypes are then surveyed and compared. The privacy techniques used in the surveyed systems are discussed and compared based on their effects on the precision and performance of the IDS. Finally, the taxonomy and the survey are used to point out a number of areas for future research.

Keyword:--

Intrusion detection systems, Privacy, Privacy preserving intrusion Detection system IDS privacy issues

Evaluation of In Vitro Antioxidant Activity of Gamma Irradiated Tribal Pulse *Erythrina indica* Lam.

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R. Michael Evanjaline., Ph.d scholar, PG & Research Department of Botany, V.O.Chidambaram College, Thoothukudi-628008, Tamil Nadu, India.

Dr.K. Paulpriya., Asst prof , PG & Research Department of Botany, V.O.Chidambaram College, Thoothukudi-628008, Tamil Nadu, India..

Dr.V. R. Mohan., Associate prof & Head, PG & Research Department of Botany, V.O.Chidambaram College, Thoothukudi-628008, Tamil Nadu, India.

Abstract:--

The aim of the present investigation is to assess the impact of gamma irradiation on *Erythrina indica* seeds at various doses (2, 5, 10, 15 and 25 kGy) for its total free phenolics, tannins, flavonoids content, 1, 1-diphenyl-2-picrylhydrazyl (DPPH) free radical scavenging, hydroxyl radical scavenging activity, superoxide radical scavenging, $ABTS^{+}$ cation radical scavenging activities and reducing power properties. The total free phenolics ranged from (0.94-1.86 %), tannins (0.36-0.84 %) and flavonoids (0.37-0.87 %) for the non-irradiated and irradiated seeds. Gamma irradiation treatment enhanced the total free phenolics, tannins, flavonoids contents and also improved the free radical scavenging activities. The radical scavenging effect was found to increase with increasing concentrations. Among the assessed free radical scavenging activities, 1000 µg/ml of irradiated (25 kGy dose) seed extracts of *E. indica* possessed maximum superoxide radical scavenging activity (96.27%). Considering the consequence of irradiation, the investigated tribal legume seed contain the highest amount of phenolics and exhibited high antioxidant and free radical scavenging activities. These *in vitro* assays indicate that, suitably irradiated tribal pulse is a significant source of natural antioxidants, which might be helpful in preventing the progress of various oxidative stresses and could be envisaged as a dietary ingredient in the formulation of supplementary foods with therapeutic values.

Key Words:

Erythrina, gamma irradiation, phenolics, tannins, flavonoids, DPPH

DDoS Defense using Flow-based Security Event Information

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Abstract:--

Over recent years, network-based attacks evolved to the top concerns responsible for network infrastructure and service outages. To counteract such attacks, an approach is to move mitigation from the target network to the networks of Internet Service Providers (ISP). In addition, exchanging threat information among trusted partners is used to reduce the time needed to detect and respond to large-scale network-based attacks. However, exchanging threat information is currently done on an ad-hoc basis via email or telephone, and there is still no interoperable standard to exchange threat information among trusted partners. To facilitate the exchange of security event information in conjunction with widely adopted monitoring technologies, in particular network flows, we make use of the exchange format FLEX. The goal of this paper is to present a communication process that supports the dissemination of threat information based on FLEX in context of ISPs. We show that this communication process helps organizations to speed up their mitigation and response capabilities without the need to modify the current network infrastructure, and hence make it viable to use for network operators.

Keyword:--

FLEX, DDOS, STOMP, Encryption, Signature, Automated Development.

Split and Strong Split Steiner Domination Number of Graphs

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Abstrac:--

For a nonempty set W of vertices in a connected graph G, the Steiner distance d(W) of W is the minimum size of a connected subgraph of G containing W . Necessarily each such subgraph is a tree and is called a Steiner tree with respect to W or a Steiner W-tree. The set of all vertices of G that lie in some Steiner W-tree is denoted by S(W). If S(W) = V, then W is called a Steiner set for G. A Steiner set with minimum cardinality is the Steiner number of G and is denoted by s(G). For a connected graph G, a set of vertices W in G is called a Steiner dominating set if W is both a Steiner set and a dominating set. The minimum cardinality of a Steiner dominating set of G is its Steiner domination number and is denoted by $\gamma_s(G)$. A steiner dominating set of cardinality $\gamma_s(G)$ is said to be a γ_s-set. In this paper, split and strong split steiner domination numbers of graphs are introduced. Also, these numbers were found for some standard graphs.

Keywords:--

steiner number, steiner domination number, split steiner domination number, strong split steiner domination number.

Synthesis and Characterization of Polymer Nano-Composite for Heavy Metal Removal

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Dr. M. Thirumarimurugan., Professor and Head of the Department of Chemical engineering, Coimbatore institute of technology, Tamilnadu, India

Abstract:--

A ternary Nano-composite using kaolin clay- activated carbon (bagasse) – chitosan was prepared via sol-gel method. The raw kaolin clay was modified by using aluminium nitrate and it was characterized using Fourier Transform Infrared Spectroscopy (FT-IR). Activated carbon was synthesized from bagasse by KOH activation. The synthesized activated carbon was characterized by Fourier Transform Infrared Spectroscopy (FT-IR) and Scanning Electron Microscope (SEM). The particle size, surface area and porosity of the activated carbon were also measured. The Nano-composite prepared was characterized by using Fourier transform infrared analyzer (FT-IR) and Scanning electron microscope (SEM). The particle size, surface area and porosity of the Nano-composite were measured. The surface area of the ternary nanocomposite from Brunauer-Emmett-Teller analyzer (BET) was found to be 1957m^2/g. Batch wise adsorption tests were conducted for different concentrations of the nickel effluent, for different residence time with constant amount of the prepared Nano-composite. The nanocomposite exhibited excellent performance of nickel removal from the aqueous solution. The Atomic Absorption Spectroscopy results revealed that upto 99% adsorption efficiency was achieved in 200ppm of nickel effluent for 0.5g of adsorbent. The Atomic Absorption Spectroscopy analysis was conducted for 200,400,600,800 and 1080 ppm of nickel effluent with 0.5g of the adsorbent for a contact time of three days and seven days. After three days the concentration of the nickel effluent was found to be reduced and at the seventh day the concentration of nickel effluent was increased when compared to the concentration of the nickel at the end of three days. This explains the phenomenon of desorption. The cause of desorption is due to the increase in temperature. Hence the optimum contact time for this adsorption process was found to be three days.

Keyword:--

Chitosan, Clay, Activated carbon, Nanocomposite, Nickel effluent, Batch adsorption.

Jungle Blaze – A Ticking Climate Bomb

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Abstract:--

A forest fire or wildfire is a fire in an area of combustible vegetation that occurs in the country side or rural area. Forest fires are the most common hazards in forests. They pose a threat not only to the forest but also causes imbalances in nature and endangers biodiversity by reducing faunal and floral wealth. Recent climate trends evidence a rise of temperatures and an increase in the duration and intensity of droughts which is in turn leading to the occurrence of larger wildfires, which threaten the environment as well as human lives and beings. Traditional methods of fire prevention are not proving effective and it is now essential to raise public awareness on the matter, particularly among those people who live close to or in forested areas. Satellite remote sensing has become a primary data source for fire danger rating prediction, fire mapping, fire monitoring, and fire management. US National Oceanic and Atmospheric Administration (NOAA) and Moderate Resolution Imaging Spectroradiometer (MODIS) satellites are being used for fire detection worldwide due to their high temporal resolution and ability to detect fires in remote regions. Satellite remote sensing is well suited for the better understanding of the effects of forest fire on climate change. According to the Union Of Concerned Scientists (UCS), it has been found that drier conditions and higher temperature increases the likelihood and severity of wildfire. Thus, by predicting forest fires, the changes in climatic conditions or the loss of plant and animal life can be minimized. Hence the prediction of forest fire is a very significant one.

Enhanced Noise Removal Technique through Image Restoration by Fuzzy Logic Using Median Based Fuzzy Filtering

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Abstract:--

The fuzzy logic and directional weighted median is present in this paper based on the image restoration technique. The image processing is a method it is used to convert an image in to digital form. The proposed work consists of noise detection and fuzzy filtering process and it is used to remove uniform impulse noise while preserving the image details effectively. Two stage robust noise detection present in this paper; they are preserve image details such as edge and texture information. The noises will be detected the pixels by using the both stages. The first is the noise detection stage they are considered for noise removal and the second stage is fuzzy filtering process, which utilizes the direction based weighted median to construct fuzzy membership function. In the detail preservation and noise removal this is the main contributing factor. In this proposed work perform it will be increasing the image restoration effiency and the accuracy.

Keyword:--

Fuzzy logic, Fuzzy filter, Impulse noise, Image restoration, weighted median

Fetal ECG Extraction and Analysis of the Health Condition Based on Boosting Classifier

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A.Ahila., Professor, Department of ECE, Infant Jesus College of Engineering, Tirunelveli, Tamil Nadu

Abstract:--

Analysis of fetal electrocardiogram (fECG) waveforms, as well as fetal heart-rate (fHR) evaluation, provide important information about the condition of the fetus during pregnancy. A continuous monitoring of f-ECG, for example using the technologies already applied for adults ECG tele-monitoring (e.g., Wireless Body Sensor Networks, WBSNs), may increase early detection of fetal arrhythmias. In this work, we propose a novel framework, based on Compressive Sensing (CS) theory, for the compression and joint detection/classification of mother and fetal heart beats. Methods: Our scheme is based on the sparse representation of the components derived from Independent Component Analysis (ICA), which we propose to apply directly in the compressed domain. Detection and classification is based on the activated atoms in a specifically designed reconstruction dictionary. Results: Validation of the proposed compression and detection framework has been done on two publicly available datasets, showing promising results (sensitivity S=92.5%, P+=92%, F1=92.2% for the Silesia dataset and S=78%, P+=77%, F1=77.5% for the Challenge dataset A, with average reconstruction quality PRD=8.5% and PRD=7.5%, respectively). Conclusion: The experiments confirm that the proposed framework may be used for compression of abdominal f-ECG and to obtain real time information of the fetal heart rate, providing a suitable solution for real-time, very low power f-ECG monitoring. Significance: This is the first time that a framework for the low-power CS compression of fetal abdominal ECG is proposed combined with a beat detector for fHR estimation.

Keyword:--

Fetal ECG, Compressive Sensing, Independent Component Analysis.

The Moral Role of Indian Art

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Abstract:--

The more significant of the art work the more universal and impersonal is its appeal. Artistic genius consists in the expression of Universals from concrete relations and situations. For man is so constituted that his performed satisfaction can come only from a conscious or unconscious identification of himself with other than self. A lyrical poet, a musician, a painter or a sculptor may so express the individual passion and sentiments of love, grief, and exaltation that there become abstract typical and Universal as embodied in all actual or possible relations, and situations. The Nayikar of the medieval temple of Central India, Bengal and Orissa do not suggest gross sex but the spot and delight of the primordial energy that underlines the causations of the universe and of every manifestations or appearance such images of female beauty have in fact contributed towards the sublimation and elevation of sex to a supersensible plane, following up the entire medieval Indian religious thought that found the sex motif as the symbol of the cosmic energy explaining the conception and creates of the universe.

Keyword:--

Indian Art, express individual passion and sentiments, medieval temple, female beauty.

Effects of Season on the Yield and Properties of Agar from *Gracilaria Corticata*

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Abstract:--

Agars are well-known as water-soluble, gel-forming polysaccharide extracts from agarophyte members of red seaweeds. Gracilaria corticata is one of the naturally occurring agarophytes of Indian waters. Seasonal changes in the yield and properties of agar were studied from Gracilaria corticata growing at Thoothukudi coast, Gulf of Mannar. Plants were collected during the seasons of premonsoon, monsoon and postmonsoon. Agar yield, gel strength, gelling and melting temperatures, sulphate and 3,6 anhydro-galactose content were determined. Carbohydrate content was measured from algal tissue. There was a clear seasonality in the yield and properties of agar. Agar yield of Gracilaria corticata ranged between 6.9% and 33.5%. Agar yield increased from premonsoon to monsoon season and lowest yield was found in the postmonsoon season. Gel strength ranged between 42 and 69 g cm-2. Gel strength decreased from premonsoon to monsoon and was highest during the postmonsoon season. An inverse relationship was found between agar yield and gel strength. The gelling and melting temperature ranged from 35oC to 38oC and 56.5oC to 70.5oC respectively. Maximum content of 3,6 anhydrogalactose and sulphate were observed in monsoon season. The result indicates clear seasonal variations in yield and properties of agar from Gracilaria corticata.

Keyword:--

Agar yield, Gel strength, Melting and gelling temperatures, 3,6-anhydrogalactose.

Ascending tree cover of some special graphs

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Abstract:--

*Asc*ending tree cover of a graph G is a partition of edges of G into edge disjoint trees $G_1, G_2, \ldots, G_n$ such that $|E(G_i)| = i$ for all i=1 to n. In this paper, we investigate the ascending tree cover of some special graphs.

*Keyword:-Asc*ending tree cover, *Asc*ending cover,

Quantitative Determination of Essential and Trace Element Content in the Leaf and Bark of Medicinal Plant *Naringi Crenulata*

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Abstract:--

Metals and elements play a vital role in the metabolism in human body. The deficiency or excess of trace elements leads to various complications and metabolic disorders in human being. *Naringi crenulata* is a medicinal plant belongs to Rutaceae family .The present work includes the quantitative determination of various elements present in the leaf and bark of *Naringi crenulata* using AAS technique. The elemental composition present in the medicinal plant have great importance to understand their functions in the human body. The results revealed that the plant contain essential trace elements such as Fe which are used as a dietary item as well as ingredient in medicinal preparations.

Keyword:--

Naringi crenulata, trace elements, AAS.

Hyper Spectral Image Segmentation of Land Resources Classifications Based Resources Classification Based Kernel Classifier

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Abstract:--

For the classification of hyper spectral images (HSIs), this work presents a novel. Framework to an automatic system to segment the hyper spectral images. In the HSI, each pixel can be regarded as a shape-adaptive region, which consists of a number of spatial neighbouring pixels with very similar spectral characteristics. First, the proposed methodology adopts an over segmentation algorithm to cluster the HSI into many super pixels. Then, feature extraction is employed for the utilization of the spectral information, as well as spatial information, within and among super pixels. Finally, the hybridized machine learning algorithm is incorporated for the hyper spectral classification. This work introduces particle swarm optimization based support vector machine classifier for the classification. The pavia database images are collected and simulated on MATLAB R2014a and the exposed results are showing the effectiveness of the proposed methodology.

Detection of Diabetic Retinopathy by Using Skin Locus Model

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A.Ahila., Associate Professor, Department of ECE, Infant Jesus College of Engineering, Tirunelveli, Tamil Nadu

Abstract:--

Diabetic retinopathy is one the most dangerous eye problem, that cause the increasing the insulin of the blood. Some eye features to be identified to the diabetic retinopathy. They are found in several stages, which are micro aneurysms, hemorrhages, exudates. Detection of retinopathy by using the several method's, they are screening, segmentation, classification, enhancement, filtering .In many eye images are analyzed by using the digital processing method . Most extreme level due to causes the blindness of the eye. This project gives the early detection of the diabetic retinopathy found or not, to identify the eye of the some features. In eye images due to analyze the diabetic retinopathy is found or not. The result of the patient which stage of the diabetic retinopathy occur.

Keyword:--

exudates, hemorrhages, micro aneurysms

Protein profile analysis and secondary structure prediction of bacterium vibrio isolated from the intestine of silk worm, *Bombyx mori* Linn

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Abstract:--

Silkworm Bombyx mori is an economically important and domesticated insect considered as an ideal model organism of Lepidopteron family. The yield and quality of cocoons depends upon the strain. The gut microbiota plays a major role in the growth, development of insect and as an opportunistic nature of the adaptation of pathogen in the host leads to sacrifice. Molecular level of analysis is an emerging trend and ideal to analyze the genetic recourses and depth insight towards solving the broad spectrum of biological problems to the host longevity and yield. The objective of our work was to investigate the Protein Profile Analysis and secondary structure prediction of bacterium vibrio isolated from the intestine of silk worm Bombyx mori Linn. The tool Phyre2 suite is an online of available tool used to predict and analyze the structure and function of the protein. The confidence levels of top-modeled c4fmoB obtained was 7.9% and the coverage is about 17% with the 11 residues modeled by the single highest scoring template. There are about 38% of Alpha helices and 27% of Beta helices, whereas six different protein contigs were ranked as c4fmoB, c3albc, c5b424, c5hx04, c5c3fB and c2m5bB respectively. Protein profiles calculated in the stage 1, together with the secondary structure prediction converted by the Hidden Markov Model (HMM). With this focused interface analysis it helps to predict the ligand binding sites, analyze the effect of amino-acid variants behind the sites of protein sequences to interpreting the secondary and tertiary structure of their models.

Keyword:--

silkworm, microbiota, protein profile, Phyre2, confidence levels, HMM.

Geospatial Technology for National Security and Intelligence

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Abstract:--

On many occasions we have realized that modernizing technologies is essential in the defense industry and security reforms. The Defense organization of any country should gather up-to-date situation on the ground about enemy activities using data on routing, filtering, analyzing and presenting information for decision-making. The regional conflicts, rapid deployment and flexible response impose heavy burden on military commanders and supporting system to use latest technologies. A raw tabular data can be visualized within a spatial framework. Therefore digital mapping and GIS play important role in activities such as battlefield simulation, mission briefing and communications planning, logistics management and command control. The geospatial technology supports forces in their strategic decisions and operations. Further it can be employed in countering asymmetric threats. Changing conditions on the ground require a minute to minute awareness of the situation in the field. In recent days spatial technologies are emerging as primary key to bind all events that can affect national security. But using geospatial techniques demand voluminous data handling. An inclusive look at all the data gathered from hotspots and narrowing down relevant data to do the analysis and take preventive steps can be achieved through geospatial tools. Geo technology offers the capability of monitoring, predicting and countering threats to strategize and support field operations. GIS technology is used to visualize hotspots by developing real-time scenarios. Public safety as well as Location Based Services used by agencies also implements such techniques to tackle public safety issues. Geospatial technology and security informatics are aimed at developing advanced information technologies, systems, algorithms and databases for national security and other related applications. Recent advancements in visual analytics tools promise to support time-sensitive collaboration, analytical reasoning, problem solving and decision making ability for security crisis management and internal security of a nation and its people. Thus geospatial technologies are vital for surveillance, reconnaissance and target acquisition, in a security domain.

Anti Q - Fuzzy T - Ideals of TM – Algebras

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Abstract:--

In this paper, we introduce the notion of anti Q - fuzzy T-ideals of TM-algebras, lower level cuts of a fuzzy set and prove some results on these. We show that Q - fuzzy subset of a TM - algebra is a Q - fuzzy T - ideal if and only if the complement of this Q - fuzzy subset is an anti Q - fuzzy T - ideal.

A Study on Agent Based Modeling - Topological Interactions

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Abstract:--

Agent Based Model (ABM) is a class of computational models for simulating the actions and interactions of autonomous agents with a view to accessing their effects on the system as a whole. It combines elements of game theory, complex system, emergence, computational sociology, multi-agents system and evolutionary programming. ABMs are also called individual–based models (IBMs). ABMs are a kind of micro sale model that simulate the simultaneous operations and interactions of multiple agents to re-create and predict the appearance of complex phenomena. The key notion is that simple behavioral rules generate complex behavior. Most Agent Based Models are composed of numerous agents specified at various scales, Decision making heuristics, Learning rules or adaptive processes, An interaction topology, Non agent environment.

ABMs are typically implemented as computer simulations, either as custom software or via ABM toolkit, and this software can be used to test how changes in individual behavior will affect the system's emerging overall behavior. This paper presents an overview of how agents communicate agent communication languages and interaction protocols.

Keywords:--

ABM, simulation, IBMs, interaction protocols

Economical Trends in Kanyakumari District

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Abstract:--

The economy of every country is based on land and its people. The distribution of land as it exists in Kanyakumari District is chiefly the result of social customs, the laws of inheritance and the legislative enactments that were made from time to time. It was the feudal based economy that severely affected the economy of the common people. Kanyakumari District was preeminently an agricultural area. 47.2% of the population depending for their means of livelihood almost exclusively upon land, a feature peculiar to the west coast of Travancore. The district, once called as "the Granary of Travancore" and its fertile area with hundreds of water bodies and a canal irrigation system commanded a predominant status. However all avenues of activity had been pursued by people to derive their income.

Keyword:--

Kanyakumari District, Economic Trends, agricultural.

Early History of Travancore

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Abstract:--

The accounts left behind by the foreign travelers in India and the Tamil Sangam works throw much light on the ancient history of Travancore. The Phoenicians who were sometime the masters of the Mediterranean were attracted by the sandal-wood and spices available in this area and its surroundings. Therefore, they extensively travelled in Travancore and they were the first among the foreigners to make mention about Travancore. It is mentioned in the accounts of Eratosthereas who visited India in about 276 B.C. An anonymous author in his book named 'Periplus of Erythrean Sea' refers to Travancore. Ptolemy was the next European visitor who had referred to this region in his book 'Geography', which was compiled in 140 A.D. According to him the kingdom of Ays flourished to the south of Chera kingdom and it extended upto Kanniyakumari.

Keyword:--

Travancore, Tamil Sangam, Chera Kingdom.

Revisitaton of Web Page Using Content and Context Keyword

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Abstract:--

Getting back to previously viewed web pages is a common yet uneasy task for users due to the large volume of personally accessed information on the web. This paper leverages human's natural recall process of using episodic and semantic memory cues to facilitate recall, and presents a personal web revisitation technique through context and content keywords. Underlying techniques for context and content memories acquisition, storage, and utilization for page re-finding are discussed. The proposed technique delivers the best re-finding quality in finding rate average F1-measure and average rank error. Among time, location, and activity context factors in this technique activity is the best recall cue, and context plus content based re-finding delivers the best performance, compared to context based re-finding and content based re-finding. The burden of remembering the URL or title is removed using this technique. This technique improves the usability and utility of the history feature in web browsers and also to greatly reduce the time and effort required to revisit a webpage.

On Anti-Fuzzy Bi-ideals In near Subtraction Semigroup

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Abstract:--

Dheena discussed and derived some properties of near subtraction semigroups. The concept of fuzzy set was first initiated by Zadeh. In this paper we introduce the notation of anti- fuzzy bi-ideals in near subtraction semigroup and give some characterizations of fuzzy bi-ideals and anti-fuzzy bi-ideals in near subtraction semigroup . We establish that Every fuzzy right ideal, fuzzy ideals are fuzzy bi-ideals of a near- subtraction semigroup. But the converse is not necessarily true as shown by an example.

Keywords :-

Near subtraction, semigroups, fuzzy bi-ideal, anti-fuzzy bi-ideal.

Marthanda Varma - The Legend

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Abstract:--

Marthanda Varma the founder of modern Travancore. He was born in 1705. Anizham Tirunal Marthanda Varma rule of Travancore in 1929. Marthanda Varma headquarters in Kalkulam. Marthanda Varma very important policy in Blood and Iron policy. Marthanda Varma reorganised the financial department the palace of Padmanabhapuram was improved and several new buildings. There was improvement of communication following the opening of new Roads and canals. Irrigation works like the ponmana and puthen dams. Marthanda Varma rulling period very important war in Battle of Colachel. The As the Dutch military team captain Eustachius De Lannoy and our soldiers surrendered in Travancore king. Marthanda Varma asked Dutch captain Delannoy to work for the Travancore army Delannoy accepted to take service under the maharaja Delannoy trained with European style of military drill and tactics. Commander in chief of the Travancore military, locally called as valia kapitaan. This king period Padmanabhaswamy temple in Ottakkal mandapam built in Marthanda Varma. The king decided to donate his recalm to Sri Padmanabha and thereafter rule as the deity's vice regent the dedication took place on January 3, 1750 and thereafter he was referred to as Padmanabhadasa Thrippadidanam. The legend king Marthanda Varma 7 July 1758 is dead.

Keyword:--

Marthanda Varma, Battle of Colachel, Dutch military captain Delannoy

A survey of Digital image watermarking

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Abstract:--

Nowadays, Internet has made our life easy and convenient. The accessibility of multimedia data such as audio, images and videos has been increased. But due to the growth in this technology , the data can be deleted, modified or plagiarized easily without proper authorization and authentication. Hence the protection of digital multimedia content has become the major issue. So the digital watermarking method is used. Digital watermarking is the method of embedding a pattern text or a image into the digital multimedia content, which provides authenticity. This method increases robustness to various attacks. This paper presents a survey on the recent digital watermarking techniques, their applications, merits, demerits and the implementation plan of the project.

Design of High Speed 8 Bit Carry Look Ahead Logic for Arithmetic Operations

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Abstract:--

This paper attempts to show the survey on 8-bit carry look ahead adder with Gate delay, propagation delay, and total number of gates are listed. The circuits were built in .asl file and simulated using AUSIM L2.3. The operation of digital logic simulator called the Auburn University Simulator (AUSIM) is described.The AUSIM version L2.3 not only provides simulation of non-hierarchial circuit descriptions but also provides area and performance audits of the cell.

Keyword:--

Carry look ahead adder, gate delay, propagation delay, Ausim l2.3.

Kanyakumari Church Architecture

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Abstract:--

The church architecture of Kanyakumari springs from two sources, the first from the work of Apostle St. Thomas and the Syrian Christians and second from the missionary work of European settlers. It is possible that some of the temples were adapted as church for services by the population who got converted into Christianity by St. Thomas. Since the early Christians lived in isolation, far from the main centres of Christianity they were not aware of the church building conventions of the west; besides the community itself has a Hindu background and Hindu temples were their models for church building. Historical evidences suggest that the first wave of Christianity came from Syria in fourth century A.D. owing to the persecution of Christians in the Persian Empire. According to the inscription of the times of Stanu Ravi by 9th century, Christian communities enjoyed many rights and privileges. They also played a vital role in trade and commerce.

Keyword:--

Kanyakumari, Architecture, Christianity, Hinduism

Survey on Different Data Security Cryptographic Algorithm

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Dr.S.John Peter., Associate professor & Head, Department of Computer science, St.Xavier's college, Tirunelveli.

Abstract:--

In today's world cloud computing grows very fast and transferring vast amount of data confidentially through clouds by using security algorithms. Clouds are new platform in Information Technology (IT) and business world. Huge Number of users stores their secured data on Cloud. We send more private data in clouds. Data security is the most important role in transferring data through clouds. Cryptography is a technique that allows user to send and receive the confidential data using security algorithms. So, data security is an important factor in cloud computing for ensuring clients data is placed on the secure mode in the cloud. In this paper, there are number of existing cryptographic techniques used to implement security in cloud and we have to discuss number of symmetric and asymmetric algorithms. we have focuses to a comparative study of various cryptographic algorithms like DES, 3DES, AES, RC2, RC4, RC5, RC6, TWOFISH, THREEFISH, BLOWFISH, and RSA. We have to analyze on their ability to secure data, key size, block size, features.

Keyword:--

Cryptography, Encryption, Decryption, Symmetric Key Algorithms, Asymmetric key Algorithms

Addressing the issues of text analytics

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Dr.M.Mohamed Sathik., The Principal, Sadakathullah Appa College, Palayamkottai, Tamil Nadu, India.

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Abstract:--

In recent years, the quantity of information generated by business, government, health care and science has increased immensely. The volume of data organizations handle can progress from megabytes through to petabytes and even zetabytes. As the people are being more dependent on internet, the requirement of user view analysis is increasing drastically. More than 90 percent of today's data is composed of unstructured data or semi-structured data. The discovery of knowledge in the form of appropriate patterns and trends to analyze the text documents from enormous volume of data is a big issue. Text mining is a process of extracting interesting and nontrivial patterns from a large amount of text documents. There exist different techniques and tools to mine the text and discover valuable information for future prediction and decision making process. Sentiment Analysis or Opinion Mining is a current ongoing field of research. This paper briefly discuss and analyze the text mining techniques and their issues in the field of text mining that affect the accuracy and relevance of results are identified.

Keyword:--

Knowledge Discovery; Text Mining; Sentiment Analysis.

Reestablishment of Travancore Tamilnadu Congress

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Abstract:--

The law courts in Travancore Cochin State, at all levels, rejected the bail applications of all those who were in various jails. Finding no remedy for their relief, Nesamony approached the Supreme Court of India for the transfer of cases of the victims. The ministry had to go out of office and a new ministry, supported by the TTNC was formed by the Congress Party. The State Reorganisation Commission submitted its report. It came for discussion in the Parliament. The Commission recommended for the merger of four Southern Taluks and Shencottai with Madras State. Nesamony, in a long voice, fought for the merger of the other four taluks with Madras State which were left out by the Commission. However the opperessed people of the Southern Taluks of Travancore Cochin State were liberated by separation on 1 November 1956.

Keyword:--

Reestablishment of Travancore, Nesamony approached, Reorganisation Commission, Tamilnadu Congress

Philosophy of Technology as Transformation Experience by Integrating Techno-World and Life-World for the Future of Universe

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Abstract:--

Philosophy is both an experience of the world and thinking about that experience of the world. Phenomenology as philosophy begins with a call to return to the richness of human experience as the base for all subsequent knowledge. Don Ihde derives his Post- Phenomenology from the phenomenology of Husserl and the critique of technology of Heidegger. In Husserl, phenomenology was thought of a new science of experience. Heidegger's fundamental Ontology is a phenomenology and Human being is called to listen to the voice of Being.

The philosophy of technology of Heidegger is directly phenomenological where he exhibits the existential foundations of the technological enterprise. There is indeed a relationship between the fundamental ontology of Heidegger and his philosophy of technology. The reason is in the technological attitude of the modern world what he sees is the abandonment of the Being, which leads him to meditate on technology. Don Ihde starts from the context of techne, which is human world relation as mediated by an instrumental relationship.

The philosophy of technology focuses on the phenomenological and existential tradition. If technology is an extension of science, then to address the effects of technology is at most to address a tertiary phenomenon. A series of relations may be formalized thus: Scienceà Technologyà Techno-scienceà Techno-Worldà Philosophy of Technologyà Social Effect à Life World. The practical phenomenology is combining technology and science towards techno-science and the philosophy of technology applies it with the life world.

In this paper I would try to apply philosophy of technology to the Indian context of technology and narrow it on energy particularly the nuclear technology, which requires the development of technology to meet the energy security. The current energy demands of India appear to be 'Bow-under-Tension'. While considering the nuclear technology for energy demands and supply with its contribution to other sectors of developments, a critical evaluation of the nuclear technology's relation to the life world is inevitable. Thus considering the importance of the life-world and the future of the universe, an autonomous renewable energy is necessary as an alternative to provide sustainable energy and progress, leading to integration of the techno-world and the life-world.

A Note on SG – algebras

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Abstract:--

In this paper we introduce the notion of SG – algebras as a generalization of BCK/BCI/Q/TM algebras and investigated some of the elementary properties by comparing with other algebras. Further if the SG – algebra is self distributive then we defined the ideals and filters of SG – algebra & tried to obtain some of the related results derived in CI – algebras.

A Synergic Approach in Creating IOT Based Smart Green India

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Abstract:--

The prosperity of a nation depends mostly on the well being existence of the eco-system. In encompassing a very good eco-system, urban green space plays a vital role. For the past two decades, in a developing country like India, urbanization is at a great pace. The main objective of the study is to bring the dream of our former President Dr. A.P.J. Abdul Kalam, green mission of planting more trees in India, into reality with the implementation of IOT. The study on the implementation of IOT in making Smart Green India accentuates the use of soil moisture, temperature, and humidity sensors for robust and effective monitoring and watering of trees planted in parks, gardens and along the road sides of the urban cities with less manpower. All the environmental data are detected by the sensors, integrated and transmitted by using Arduino, Zigbee, WLAN or mobile 3G/4G system. The water pipes are automatically switched on or off based on the analysis of data obtained. This is the radical shift from traditional method to modern use of technology which mitigates the problems related to workforce shortages. Till date, these technologies have been used only by farmers for elevating agriculture. This study explores for the first time the usage of IOT for enhancing urban green space which is the need of the hour. This article deals with the implementation of IOT framework for agricultural applications, the significance of urban green space, the models of IOT based devices, evaluations of the results obtained by their performances and concludes with the potential for improvements in the future.

Keywords: Arduino, humidity sensor, soil moisture sensor, urban green space.

Edge Detour Domination Number of Edge added Graphs

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Abstract:--

A subset S of V is called an edge detour set of G if every edge in G lie on a detour joining a pair of vertices of S. The edge detour number $dn_1(G)$ of G is the minimum order of its edge detour sets and any edge detour set of order dn_1 is an edge detour basis. An edge detour dominating set is a subset S of V(G) which is both dominating and an edge detour set of G. The smallest cardinality of an edge detour dominating set of G is called the edge detour domination number of G. In this paper, it is found for the (γ,eD)-number of an edge added graphs of some known graphs such as path, cycle and complete graph.

Thiruvithancore Samasthanam's Manu Dharma Vidhi

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Abstract:--

People were divided into 18 castes. Among them Nadar was established as the last one. Touching the parayars was considered as untouchable, Seeing the Sanars is also considered to be untouchable. Thus, except Brahmins, all the other castes were considered as untouchables. They were not allowed to walk in the streets having temples, the street of the upper classes to take water & bath from ponds, well and to live in comfortable houses. They had to pay taxes for tying Mangalyam in marriages. They had to pay taxes for cows, Spades and sickles. Palm workers had to pay taxes for palm trees and thus they had to work as slaves. Nadar peoples were treated as untouchables. Women were not allowed to wear upper wears and to worship God. British rulers wrote that, "We have never seen such an evil in the name of caste in any other part of the world other than Trivancore". On seeing these evils, when vivekananda came to kumari, he told, "Thiruvancore Samasthanam is the living place of insanes". In 1754, in order to overcome the expense of Military in Thiruvithancore, they collected taxes from the Backward people in the name of 'Thalai erai'. The poor people, were not able to pay the money, so they ran to Tirunelveli.

Keyword:--

Thiruvithancore Samasthanam, Manu Dharma Vidhi, Untouchables.

A Survey on Third Party Auditor in Cloud Environment

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Abstract:--

Cloud Computing is used to store, process and accomplish data on the remote server not a local server. Data owners can store their data remotely on the cloud server. Remote data storage reduces the local data difficulties and maintain the data load. But, the fact that users no longer have physical control over the huge size of outsourced data makes the data integrity protection in Cloud Computing a frightening chore, especially for users with constrained computing resources. The data may be changed or modified by the external competitors so that the security of cloud storage is most important to check the reliability and consistency of data stored in the cloud. The Third Party Auditor(TPA) should secure, integrate and uphold the data stored in the cloud. TPA should efficiently audit only the remote data not a local data and it reduce on-line problem to the cloud user. The purpose of this work is to develop an auditing pattern which is protected, well-organized to use and retain the capabilities such as privacy preserving, public auditing, maintaining the data integrity along with confidentiality. TPA work efficiently on the single remote data auditing and decrease the processing time as well as communication overhead. In this paper we propose the security of data storage in public auditing and TPA to perform audits for several users concurrently and efficiently.

Keyword:--

Remote data, Public auditing, Third Party Auditor(TPA).

A Survey on Streaming Video

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Abstract:--

This study present a video streaming system for wireless networks that employs utility optimization of pre-compressed video. Among the different approaches, the video Stream-switching technique is getting wide acceptance. We review the VoD and Live streaming data video in crossing through different paths from compression. The case of multicast video delivery the performance of the proposed scheme is significantly improved for good channel conditions while the improvement is minimized in the low. This routing metric takes into account geometric proximity and congestion degree in order to increase delivery ratio and decrease end-to-end delay, which determine the quality of the delivered video. To provide high playback quality to users by maintaining high data.

Keyword:--

Video streaming, Video compression, Priority encoding transmission, Streaming servers, Zapping Server.

An Energy Efficient Self-Healing Sleep/Wakeup Scheduling Against Denial of Service Attacks For Long Life Wireless Sensor Networks

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Abstract:--

Wireless sensor network is a network of spatially distributed sensor nodes equipped with sensing, computing, power, and communication modules to monitor a certain phenomenon such as environmental data or object tracking. The nodes in such networks are characterized by limited power, processing, and memory resources. The energy of each sensor is limited and they are usually unrechargeable, so to prolong the life time of WSNs energy consumption of each sensor has to be minimized. The existing system used duty cycling based sleep/wake-up scheduling approaches, in that the time axis is divided into periods, each of which consists of several time slots. In each period, nodes adjust their sleep and wake up time, i.e., adjusting the duty cycle, where each node keeps awake in some time slots while sleeps in other time slots. A long wake-up time may cause energy waste, while a short wake-up time may incur packet delivery delay. However, these duty cycling based approaches in WSNs may incurs tradeoff between both energy saving and packet delivery delay. In order to avoid this, self healing based sleep/wake-up scheduling is proposed to save the energy of each sensor node by keeping nodes in sleep mode as long as possible and thereby maximizing their lifetime. In addition to this denial of Sleep Attack is also considered in this technique which prevents the radio from going into sleep mode and also drain the battery in only a few days. To prevent against denial of sleep attack a cross layer energy efficient security mechanism is additionally added to protect the network from these attacks. The cross layer interaction between network Mac and physical layers is mainly exploited to identify the intruders' nodes and prevent sensor nodes from denial of service. Thus the proposed protocol will reduce the delay and improve the lifetime and QoS of networks

Green synthesis of silver nanoparticle using Alpinia galangal plant

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Dr. R. Jothimani., Asst.Professor, Department of Physics, Sadakathullah Appa College,Tirunelveli.

Abstract:--

Nanotechnology is an immensely developing field due to its extensive range of applications in different areas of technology and science. Different types of methods are employed for synthesis of nanoparticles due to their wide applications. The conventional chemical methods have certain limitations with them either in the form of chemical contaminations during their syntheses procedures or in later applications and use of higher energy. During the last decade research have been focussed on developing simple, clean, non-toxic, cost effective and eco-friendly protocols for synthesis of nanoparticles. In order to get this objective, biosynthesis methods have been developed in order to fill this gap. The biosynthesis of nanoparticles is simple, single step, eco-friendly and a green approach. The biological agents in biochemical processes reduce the dissolved metal ions into nano metals. The various biological agents like plant tissues, fungi, bacteria, etc. can be used for biosynthesis for metal nanoparticles. In this research work first time extract of alpinia galangal plant was added with silver nitrate to form silver nano particle.The structural and spectral analysis of the synthesized nanoparticles has been done by X-Ray Diffraction (XRD) and Fourier Transform Infrared (FTIR) Spectroscopy techniques. The crystallite size and internuclear distance has been found using PXRD Analysis. FTIR Analysis revealed the functional groups present. The Linear Optical Analysis has been done using UV-Visible spectroscopy. Silver NPs are widely used in biosensors, diagnostic, conductive, antimicrobial and optical applications.

Keyword:--

Green synthesis; Ag NPs; PXRD; FTIR; UV; Anitimicribial;

Growth, Structural, Optical and Mechanical Properties of Oxalic Acid single crystals

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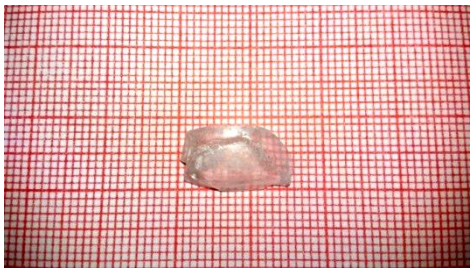
Abstract:--

Single crystals of a organic material viz. oxalic acid were grown by slow evaporation method. The grown crystals have been subjected to single and powder X-ray diffraction, FTIR, UV-Visible, micro hardness and thermal studies. It is found that oxalic acid single crystals crystallizes in monoclinic crystal system and the powder X-ray diffraction analysis was done to verify the lattice parameters and crystalline nature of the crystals. The vibrational frequencies of various functional groups present in the sample have been derived from FTIR analysis. The percentage of transmittance in visible reion of the crystal was recorded using the UV-Visible Spectrophotometer. The mechanical strength of the crystal was found out using Vickers micro hardness test. The thermal behaviour of the sample was also observed by Thermo gravimetric analysis.



Grown crystal of Oxalic acid

Keyword:--

Organic crystals; X-ray diffraction; FTIR analysis; Mechanical properties;

On Demand distributed Channel Access routing protocol for Cluster based Mobile Adhoc Network

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Abstract:--

In mobile Adhoc networks, Network communication increases the collision and congestion which reflects in the degradation of the network performance. In order to mitigate the routing issue, importance of the bandwidth segmentation has to be considered. In this paper, we propose a novel on demand distributed channel access routing protocol on IEEE 802.11 MAC layers for Channel Aggregation and bandwidth segmentation under uniform and non uniform traffic patterns. However proposed protocol utilizes the trace file for channel allocation to the data communication. Trace file is collected through the carrier or channel sensing node in the clustered nodes to form the channel state information. The clustering of node is to increase the lifetime of the network by grouping the mobile nodes with constrainst like location similarity or node density similarities. The objective is to increase the scalability by generating the multiple cluster head through Cooperative Clustering. Clusters are guaranteed to have a desirable number of common channels for control, which facilitates for graceful channel migration between one another to form dynamic migration zones to facilitate the information dissemination and dynamically reforms clusters according to each node's bandwidth requirement, energy use, and application type. In order adjust the bandwidth of the channel, Access point Selection scheme, Multicasting and data compression scheme are enabled in order reduces the bandwidth usage and handover. The results of simulation carried out on Proposed Routing protocol demonstrate the superiority in terms of throughput and computational complexity compared with Cooperative and Dynamic Channel Allocation based routing protocols.

Keyword:--

Clustering, Trace file, Scalability, Routing protocols.

Detecting the Boundary Area of Gas Diffusion In Wireless Sensor Networks

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Abstract:--

Petrochemical plants convert natural resources such as crude oil, natural gas, ores and minerals into products for a wide range of applications. They produce many important building blocks for industry processes, including ethylene, propylene, butadiene, and aromatics. Detecting and visualizing the dangerous area of leaking toxic gases is important for large-scale petrochemical plants. There are many kinds of toxic gases in petrochemical plants, e.g., sulfuretted hydrogen (H2S), hydrogen chloride (HCl), and sulfur dioxide (SO2). Once these toxic gases leak, they can cause an explosion that results in serious economic loss. The existing system uses planarization algorithm to planarize a WSN and based on the planarized network, the boundary area of gas diffusion is calculated to delimitate the dangerous area. However, when all of the nodes are in the working state at the same area, the probability of the interference, collision, and congestion in the network will increase during the process of transmitting data. Moreover, multiple nodes covering an interested area will result in the emergence of redundant information. In order to avoid this ant colony optimization algorithm with adhoc on demand multicast distance vector routing protocol is used to find the amount of gas diffusion and dangerous area. Also this protocol will send the alert message to controller of the monitoring area. The simulations are done performed using network simulator the parameter such as node density, probability of gas diffusion, throughput, energy consumed and packetloss is analyzed.

Comparison and Implementation of Controllers for Quadruple Tank System

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Abstract:--

There are many systems in the world which are nonlinear in nature. Most of the industries relied on only the single loop controltoregulatesuchprocesses. Design of multi variable system great demand in process industries. The quadruple tank system is multivariable process which is non-linear and dynamic in nature. This system follows that the law of mass balance equations and energy equations. In four tank system, it is difficult to maintain the level of tank due to the interactions between the process variables .In the existing method, there are many conventional controllers available for quad ruple tank system to maintain the water level of the tank. But all the controllers are cannot be suited for implementation. We cannot get the accurate output during implementation. So that we are going to compare the controllers such as PID, MPC and MRAC .We are going to implement the best controller among these controllers. Controllers are compared by following parameters like Peak time, Peak over shoot, Rise time and Steady state error.

Keyword:--

PID, MPC, MPRAC, Quad ruple Tank, Non-linear.

Green Synthesis of Silver Nanoparticle Using Caesapinia Bonducella Plant

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Abstract:--

Nanotechnology is interesting and dynamic feild due to its excellent range of applications in different areas of science and medicine. Different types of methods are employed for synthesis of nanoparticles due to their wide applications. To develop simple, clean, non-toxic, cost effective and eco-friendly protocols for synthesis of nanoparticles, biosynthesis methods have been adopted for the present work. The biological agents in biochemical processes reduce the dissolved metal ions into nano metals. In this research work first time extract of caesapinia bonducella plant was added with silver nitrate to form silver nano particle.The structural and spectral analysis of the synthesized nanoparticles has been done by X-Ray Diffraction (XRD) and Fourier Transform Infrared (FTIR) Spectroscopy techniques. The crystallite size and internuclear distance has been found using PXRD Analysis. FTIR Analysis revealed the functional groups present. The Linear Optical Analysis has been done using UV-Visible spectroscopy. Silver NPs are widely used in biosensors, diagnostic, conductive, antimicrobial and optical applications.

Keyword:--

Green synthesis; Ag NPs; PXRD; FTIR; UV; Anitimicribial;

Modelling and Simulation of Ammonia Plant Using Linde Ammonia Concept

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Abstract:--

In the fertilizer field, anhydrous ammonia has become the major supplier of nitrogen in India. Ammonia has uses in both organic and inorganic chemical product production for e.g. manufacturing of explosives and acrylonitrile. The main function of ammonia, both as an end product and as an intermediate, is to supply nitrogen in a relative form. Unfortunately, element nitrogen is a very unreactive and inert material. To accomplish a reaction, it is necessary to adopt extremes of temperature and pressure that are not required for the other basic materials.

The Linde Ammonia Concept is a breakthrough in the design philosophy of ammonia plants. A comparative study of Linde Ammonia Concept to the conventional processes is done. A flowsheet on the manufacture of Ammonia plant by Linde Ammonia Concept is designed. Material balance and Energy balance for the basic three sections of the Ammonia plant (Hydrogen section, Nitrogen section, Ammonia section) is simulated using Aspen Plus. Equipment's of the plant is designed using AutoCAD. A study is made on the recovery and use of by-products got during the synthesis of Ammonia by Linde Ammonia Concept. A detailed cost estimate required for setting up the Ammonia Plant is done. A study is made on the Hazards and Safety involved in the Ammonia Plant.

Human Action Recognition using Neural Network

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Abstract:--

Recognizing human action from video still remains a problem. Robust solutions to this problem have applications in various domains such as surveillance systems, human computer interaction, smart home health-care systems and control free gaming systems etc. In this paper, an approach for human action recognition based on neural network is presented. In this neural network approach, motion vector feature is used for action recognition. The features are extracted directly from the video without any pre-processing. Since preprocessing is not necessary for the proposed approach computation time has been minimized as compared to that of the existing system. Then the network is trained using scaled conjugate gradient backpropagation method. Neural network is trained with the motion vector features. The training is based on the number of hidden neurons, percentage of sample data taken for training, validation and testing. This system provides efficient result with minimum number of hidden neurons and training data.The proposed approach is tested on Weizmann dataset that consists of 10 actions providing 9 videos per activity.

A study on Bio Degradation of Used Engine Oil Using Actinobacteria

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Abstract:--

The objective of this work is to study the biodegradation of used lubrication oil by actinobacteria. The culture was collected from the soil samples taken from Muthupettai, a marshy land. Various strains of bacteria were extracted and introduced into the sample (used engine oil). The samples were given continuous movement and constant temperature in shaking incubator for a month. Result was observed by FTIR Method twice, at an interval of 15 days once. Significant degradation was observed at the end of 30 days and the effective actinobacteria also identified.

Keyword:--

Actinobacteria biodegradation, used engine oil , FTIR .

An Unsupervised Artificial Neural Network for Som-Based Brain Tumor Image Segmentation

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Dr.P.Kumar., Assistant Professor, Centre for Information Technology & Engineering Manonmaniam Sundarnar University, Tirunelveli.
M.Sivasubramanian., Research Scholar, Centre for Information Technology & Engineering, Manonmaniam Sundarnar University, Tirunelveli.

Abstract:--

Segmentation refers to the process of partitioning a digital image into multiple segments known as super-pixels. Image segmentation is typically used to locate objects and boundaries in images. SOM-K a new unsupervised natural image segmentation method based on Self Organizing Map-(SOM) and K-means method. Intensity and L*, U*, V* values of a color image are by the hit map at first and clustered by the K-means method. Brain tumor segmentation aims to separate the different tumor tissues. The purpose of this paper is to provide a comprehensive overview for MRI-based brain tumor segmentation methods. The method is proved to be robust and brain tumor image segmentation through experiments. In this research work we are comparing Fuzzy C-Means of SOM-based clustering algorithms to taking different types of Brain tumor Medical images data to test the performance. Finally we compare the quality measures Standard deviation, Variance and also we can detect the images based on Canny, Sobel edge detection techniques for efficient segmentation.

Keyword:--

Brain tumor, Magnetic Resonance Imaging (MRI), Segmentation, Edge detection method, clustering.

An Effective Approach for Diagnosis of Plant Disease using ELM

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Dr. D.Murugan., Prof, Department of Computer Science and Engineering, Manonmaniam Sundaranr University, Tirunelveli, Tamilnadu.

Abstract:--

The objective of this paper is to identify the diseases in the leaves of the all plants. The detection of disease is one of the crucial importances to increase the productivity of plants. Plant pathology is the scientific study of plant diseases, based on this study, to identify the pathogen, and classification under different kind of circumstances. In existing, the automatic plant decease detection without training set using only prior knowledge. The proposed method, to use detects the diseases by using the ELM (Extreme Learning Machine) techniques. In the above method, initially the ABC Clustering has approached for segments the affected area. Secondly, using TELP (Transform Encoded Local Pattern), Gradient Features, Color Histogram Techniques for extract the features from that affected area. Finally, these extracted features are given to the ELM classifier to get the exact type of disease affected on a leaves.

Keyword:--

Plant pathology , ABC Clustering, TELP, ELM

Enhancement of Network Lifetime Using Mobile Sink Node in Wireless Sensor Networks

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Abstract:--

Wireless Sensor Networks (WSNs) consist of a large number of sensor nodes deployed in a given region of interest to fulfil tasks such as area surveillance, biological detection, home care, object tracking, and sending information to sink nodes via multihop communication. The data collection from sensor nodes using mobile sink has been studied in Energy Harvesting Wireless Sensor Networks (EH-WSNs) with most focus on throughput maximization. The existing system used a Mixed Integer Linear Programming (MILP) Optimization model is introduced for energy harvesting based data collection and also designed two efficient algorithms namely Optimal Distance per Slot Allocation Algorithm (ODSAA) and Optimal Distance Allocation Algorithm (ODAA) for two practically implementable scenarios with fixed sink mobility model. However, high delay and packet loss incurred due to the fixed sink mobility model. The proposed system used a Particle Swarm Optimization (PSO) model based two efficient algorithms namely ODSAA and ODAA with Destination Sequence Distance Vector Routing Protocol. This system reduces the delay and packet loss by varying the sink mobility model using Sink Speed Allocation Algorithm and increases the Network Lifetime and Throughput. Another thing is Trust Values or Threshold Values are calculated based on the node behaviour reported by their neighbours. The simulations are done by using network simulator and the parameter such as lifetime; total data collected by sink node, packet loss, delay, trust values are analyzed.

Keyword:--

Wireless Sensor Networks, Simulations, Allocation Algorithms.

Linear Optical constants and thermal behaviour of Succinic Acid single crystals for Optical Applications

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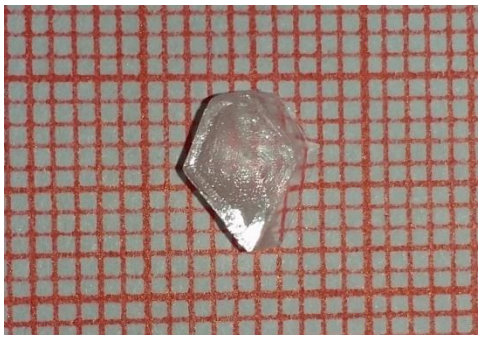
Dr. R. Jothi Mani., Assistant Professor, Department of Physics, Sadakathullah Appa College, Tirunelveli, Tamilnadu, India.

Abstract:--

Single crystals of organic optical material of succinic acid has been grown by slow evoporation growth technique using water as a solvent. The single crystal X-ray diffraction technique reveals that the grown material crystallizes in monoclinic crystal system. The optical properties such as the transmittance, absorpsion, opticalband gap, extinction coefficient (k), reflectance, refractive index (n) and optical conductivity (σ) were calculated. Large transmittance in the visible region and the wider optical band gap of the material depicts its excellency for optical applications. The decomposition point and thermal stability of the crystal was found from TG/DTA studies.



As grown crystal of succcinic Acid

Keyword:--

solution growth; XRD; Uv; TG/DTA;

A Novel DWT Based Technique for Underwater Image Enhancement

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Abstract:--

In recent years, underwater image processing area has received a great attention for researchers. In oceanic environment, capturing a clear underwater image is having a crucial importance. Underwater images are usually degraded due to the effects of absorption and scattering. The qualities of underwater images are affected by color cast, poor visibility, foggy appearance and misty. In order to overcome those limitations, an underwater image enhancement method built on a DWT method is proposed. The main aim of the proposed algorithm is to increase the quality of underwater images. Here, different images are used to perform the comparison of the proposed technique with the previous techniques. Performance of the proposed method of DWT is evaluated using the PSNR, SSIM and Entropy. Performance measurement of the wavelet techniques produces better enhancement results than previous techniques (CLAHE).

Temple Entry Movement for Depressed Class in South Travancore [Kanyakumari]

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Abstract:--

The South Travancore, most of the Temples were consecrated to the Brahminical Gods especially to Lord Siva and Vishnu. The society was divided into two group of people, viz Savarnas and Avarnas the farmer indicated the higher caste people and the latter referred as low caste people. The so called low caste people were compelled to worship the village deities. They came up to the entrance of the temple gopuram and worshipped the Gods but the Brahmins had the right to enter the inner shrine or Garbhagraha of the temples as they were considered the priestly class in the society. The Nairs were allowed to approach up to the steps in front of the Garbhagraha for devotional purpose; but others below the Nairs,the Avarnas did not have the right to enter the temple. Socio –Religious movement of the 19th century inspired the non-caste Hindus to demand for their legistimate status within the fold of Hindusim. Of them Temple Entry Movements which was started in South Travancore by the non caste Hindus otherwise called as avarna to secure the freedom of worship in Brahminical Temples was an important one. The temple entry movement erupted in several places in South Travancore now know as Kanyakumari District. Finally due to the pressure and agitation of the people, the Travancore Government opened the temples for all, by a proclamation in 1936.

Keyword:--

Temple Entry Movement, Depressed Class, South Travancore, Brahminical Gods

Study, overview and implementation of MEMS based Micro factory for sustainable manufacturing system in 2020

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Abstract:--

MEMS have been identified as one of the most promising technology for the 21st century and has potential to revolutionize both industrial and consumer products by combining silicon based micro electronics with micromachining technology. MEMS that combine Mechanical and Electrical functionally and fabricated in dimensions that ranges from microns to millimeter. Micro factory was a concept of a future manufacturing system which was proposed in the Japanese national R&D project named "micro machine project" It introduce small production concept and produce multiple miniaturized production system. Micro factory is a small production system which suitable to manufacture of small products with micro sized feature. Miniaturization of production equipment has been suggested as one of the solution for more eco friendly production.Expected advantages of micro factory would reduce environmental impact and cost of miniature of mechanical fabrication especially for "diverse type's small quantity system". Downsizing of manufacturing system can lead to smart solutions improving space utilization factor, reducing time, price and energy including environmental condition such as humidity, Temperature and cleanliness. The small size micro factories can be flexibility located to the most convenient location and allow easy adoptability to the different demands. This adoptive 'on the spot' manufacturing and fact that micro factories and more environment friendly compared to large factories. From the social point of view it is important to minimize hazardous work environments, Improve ergonomics of the work environment and to prove the efficiency creativity and health of workers. The sustainability of miniaturized production system was discussed from three perspectives-Environmental, Economic and Social.

Keyword:--

MEMS. Micro factory, Micro manufacturing, Sustainable manufacturing system.

Data security in VANET Dissemination using advanced cryptographic Techniques

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Abstract:--

Vehicular Ad Hoc Network is mainly used in safety applications to avoid road accidents by disseminating the alert messages or dangerous information among the drivers securely. This alert messages or dangerous information must be highly secured from the access of intruders or attackers. Misbehaviour or malicious node detection is a major problem in VANET if any vehicles disseminate the messages maliciously. Checking the variation in the behaviour of vehicular nodes, detection of misbehaviour and the malicious vehicular nodes continuously makes a highly secured VANET. In this paper, message dissemination using optimal blowfish algorithm based signcryption technique in vehicular networks is proposed to secure the data from the third party person or attackers.

Keyword:--

VANET, Data dissemination, Data Security, Sybil Attack, DOS, Signcryption, Blowfish, Cuckoo Search.

An Efficient Robust Reversible Blind Watermarking For Colour Images Using Maximum Wavelet Coefficient in the Selected Blocks of Fixed Size

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Abstract:--

An efficient robust reversible blind watermarking for colour images is proposed which enables the recovery of the original host image upon extraction of the embedded watermark. Blind watermarking technique is applied for watermark extraction which does not require host image for extraction. For embedding, two level DWT is performed. Watermark is embedded in the maximum wavelet coefficients of the selected blocks of LH and HL sub-bands of both levels. Blue component is chosen for watermark embedding. This watermark scheme is robust against various geometric and non-geometric attacks. It is proved experimentally that the PSNR of the watermarked image versus the original image is guaranteed to be above 40dB. Also it is proved that the reversibility is also high. The proposed method achieves imperceptibility, robustness and reversibility. Experimental results and performance comparison with other schemes are presented to demonstrate the validity of the proposed algorithm.

Keyword:--

Watermarking, Reversibility, Wavelet, Blind Watermarking, Colour Images, Robustness.

Augmented Reality

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Abstract:--

Augmented reality is the incorporation of digital information with the user's environment in real time. Contrasting to virtual reality, which creates a totally artificial environment, augmented reality uses the existing environment and overlaps new information on top of it. Augmented reality applications are becoming a part of everyday life that make the neighboring environment communicating by overlaying digital 3D models or some plain text information over and around the tangible objects in its radius. Their main aim is to help users achieve their goals effectively and efficiently with satisfaction. With augmented-reality displays, which will ultimately look much like a normal pair of glasses, informative graphics will look in your field of view and audio will coincide with whatsoever you see. In this research work, we are devoted to the development of augmented reality based applications and products which are in everyone's reach.

Keyword:--

Augmented reality, virtual reality display.

Fire Suppression and Alerting System in Railways

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Abstract:--

In earlier systems during summer and high-temperature seasons faulty detection of temperature sensors will occur due to high heat meanwhile gas /smoke sensor that had been used also considers the external environment smoke in the air as compartment. These wrong signals from the sensors to the controller will cause unwanted enabling of the buzzer, wrong information to the locomotive pilot, unwanted chaos, and delay of trains. This involves confusion to the total railway system. The proposed method provides faster communication using Zigbee and enables the rescuing methodology while fire accidents in the train by utilizing gas/smoke sensors integrated with LM35 along with automated fire suppression systems. In this method there are many suction ducts will be present at each partition of the train compartment along with CO2 fire extinguisher for fire suppression. If the temperature is greater than 80ºc and the output value from the gas and the smoke sensor senses the smoke then the Arduino gives the command to enable buzzer, alerting signal to Zigbee network, fire extinguisher. The automatic braking system is enabled which will be utilized to split the fired compartment from the unaffected compartments, else there is no action will be taken.

Keyword:--

Zigbee, Gas/Smoke sensor, railways, arduino, LM35

Survey of Industry Air Pollution Monitoring System Using WSN

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Abstract:--

The paper presents Wireless sensor network system used to monitor and control the air quality in Industry. Pollution has been exaggerated by developments that typically occur as countries become industrialized: growing cities, increasing traffic, rapid economic development and industrialization, and higher levels of energy consumption. Air pollution has major effect on the awareness of citizens in the air leading to effects like global warming and acid rains. To avoid such contrary differences in the real life, an air pollution monitoring system is utmost essential. Wireless Sensor Network is a fast growing technology using in various areas of real life, such as fundamental and ecological monitoring, Health care, medicine, military surveillance etc.WSN is excellent technologies that can sense, measure, and gather information from Industry transmit the sensed data to the user control station. These sensor devices permit the physical atmosphere to be measured at high determinations, and greatly increase the quality and quantity of real life data and information for applications like pollution monitoring. In this paper, a survey on Industry air pollution monitoring systems using wireless sensor networks.

Keyword:--

Industry air pollution monitoring system, Wireless sensor networks.

Genome-Scale Reconstruction of the Saccharomyces cerevisiae Metabolic Network

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Abstract:--

The metabolic network in the yeast Saccharomyces cerevisiae was reconstructed using currently available genomic, biochemical, and physiological information. The metabolic reactions were compartmentalized between the cytosol and the mitochondria, and transport steps between the compartments and the environment were included. A total of 708 structural open reading frames (ORFs) were accounted for in the reconstructed network, corresponding to 1035 metabolic reactions. Further, 140 reactions were included on the basis of biochemical evidence resulting in a genome-scale reconstructed metabolic network containing 1175 metabolic reactions and 584 metabolites. The number of gene functions included in the reconstructed network corresponds to ~16% of all characterized ORFs in S. cerevisiae. Using the reconstructed network, the metabolic capabilities of S. cerevisiae were calculated and compared with Escherichia coli. The reconstructed metabolic network is the first comprehensive network for a eukaryotic organism, and it may be used as the basis for in silico analysis of phenotypic functions.

Keyword:--

Industry air pollution monitoring system, Wireless sensor networks.

Real Time Face Detection and Tracking Using Binary Particle Swarm Optimization

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Abstract:--

This research work proposes an innovative method of Real time face detection and tracking. These features used to detect the face that are extracted from the pre-processed image using the combination of Discrete Fourier transform (DFT) and Discrete Cosine transform (DCT). Feature selection process is accomplished using Binary particle swarm optimization (BPSO). Individual stages of the Face Detection system are examined and an attempt is made to improve each stage. DFT and DCT are used for efficient feature extraction and BPSO-based feature selection algorithm is used to search the feature space for the optimal feature subset. The feature subset representing each image is the face gallery that is used for similarity measurement in the detection stage. For this purpose, the Euclidean classifier is used. This proposed method has expected to produce higher performance under arbitrary variations in illumination, poses and backgrounds with slight occlusions too.

Keyword:--

DFT, DCT, BPSO

Global and Indian Scenario of Pulsed Electric Field (PEF) Processing-A perspective Review

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Abstract:--

Food preservation technologies are based on the hindering the microbial growth or on the microbial inactivation. In many cases, foods are preserved by inhibiting microbial activity through those factors that most effectively influence the growth and survival of microorganisms such as temperature, water activity, addition of preservatives, pH, and modified atmosphere. (Blackburn and McClure, 2002). The main purpose of food processing is food preservation, which involves maintaining the high quality properties of the food as long as possible. Thermal treatment is the preferred method used by the food industry to inactivate microbes and enzymes, that speedup the natural deterioration of perishable foods and endanger consumer safety. However, the two major disadvantages of thermal processing - exposure to high temperature and overcooking, are detrimental to food quality attributes. Thermal treatments mainly affect sensory (color, smell, texture and flavor) and nutritive (vitamins) attributes (Kumar, et al., 2006). The new approaches of food processing typically involve non-thermal food preservation technologies where heat is not directly contact with product that offer full or partial (reducing treatment time and /or temperatures) alternatives to heat. They include among other physical procedures the application to foods of electric or magnetic fields, microwave radiation, ionizing radiation, pulsed electric field and high-hydrostatic pressure. As it is a product with a high added value, processing it by a non-thermal technology such as PEF is totally justified (Kathiravan, et al., 2013).

A study on photo active bischalcone based liquid crystalline polyesters

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Abstract:--

A new series of polymer derived from bischalconediol with some diacids was synthesized by polycondensation reaction using 3,3'- (1,4-phenylene)bis(4-hydroxyphenyl)prop-2-en-1-one) with terephthalic acid, succinic acid and glutaric acid. The diacids are converted to their respective diacid chlorides, which are the used to esterify the phenolic moiety of the bischalcone diols. The polyesters obtained were characterized by using IR and the polymer-solvent dipolar interaction was studied by dissolving in various solvents. The UV spectral studies showed the existence of conjugated system due to the transition in the $\pi \rightarrow \pi^*$ region. Further the decrease in the absorbance upon irradiation shows that the double bonds present in the molecule undergoes photocycloaddition reaction. The thermal behaviour of the polymer was studied using DSC thermaograms. The anti bacterial activity was also studied and the polymers have shown good antibacterial activity.

Keyword:--

Liquid crystalline polymers, polyester synthesis, polycondensation.

Biosynthesis of titanium dioxide nanoparticles using moringa oleifera medicinal plant

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Dr. R. Jothimani., Assistant Professor, Department of Physics, Sadakathullah Appa College, Tirunelveli.

Abstract:--

The metal oxide nanoparticles have considerable attention on medical field due to their antibacterial properties, resistance against microbes, drug delivery, tissue / tumor image, anticancer activities and identification of pathogens in clinical specimens. Among them Titanium dioxide nanoparticles (TiO2 NPs) has been considered as one of the most promising material due to its easy availability, catalytic performance and long term stability. The green synthesis of TiO2 NPs using plant extracts has several advantages over chemical synthesis such as cost effective, simplicity, non-toxic as well as its compatibility for medical applications. Hence in the present work a friendly approach is employed to synthesize TiO2 NPs using Moringa Oleifera. The structural and spectral analysis of the synthesized nanoparticles has been done by X-Ray Diffraction (XRD) and Fourier Transform Infrared (FTIR) Spectroscopy techniques. The crystallite size and internuclear distance has been found using PXRD Analysis. FTIR Analysis revealed the functional groups present. The Linear Optical Analysis has been done using UV-Visible spectroscopy. TiO2 NPs are widely used in various manufactured products, including sunscreen, pharmaceuticals, toothpaste, white pigment, cosmetics and in environmental decontamination of air, soil and water.

Keyword:--

Green synthesis, TiO2 NPs ; PXRD; FTIR; UV;

Preparation and photocatalytic activity of zinc oxide nanoparticles assisted by Cressa critica

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Abstract:--

Zinc oxide nanoparticles have potential applications in various areas including optical, piezoelectric, magnetic and gas sensing and also they exhibit high catalytic efficiency, strong adsorption ability, high isoelectric point, biocompatibility, and fast electron transfer kinetics for biosensing purposes. Therefore the present investigation was made to synthesize Zinc oxide nanoparticles by green method using the aqueous extracts of Cressa critica and to characterize by using SEM,EDAX, XRD and AFM techniques. Photocatalytic activity of the prepared Zinc oxide nanoparticles were also show a good degradation property of the nanoparticles.

Growth and Characterization of Thiourea Single Crystals

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Abstract:--

Most of the optical materials are currently used in the optical data storage, optical communications etc. The crystal growing technology for these materials is highly developed and their linear optical parameters are sufficient for most of the current optical applications.. For any device fabrication in the electronic industry pure and defect less single crystals are needed. In this point of view,single crystals of Thiourea were grown by slow evaporation method. The grown crystals have been subjected to powder X-ray diffraction, FTIR, UV-Visible, micro hardness and thermal studies. The crystallinity and structure of Thiourea single crystals were confirmed using powder XRD analysis. The vibrational frequencies of various functional groups in the crystals have been derived from FTIR analysis. The percentage of transmittance of the crystal was recorded using the UV-Visible Spectrophotometer. The mechanical strength of the crystal was found out using Vickers micro hardness test.

Keyword:--

Organic crystals; X-ray diffraction; FTIR analysis; Mechanical properties;

An attack resistance trust management scheme for securing vehicular Ad Hoc n/VANET

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Abstract:--

An attack-resistant trust management scheme(ART) is proposed for VANETs that is able to detect and cope with malicious attacks and also evaluate the trustworthiness of both data and mobile nodes in VANETs. Specially, data trust is evaluated based on the data sensed and collected from multiple vehicles. Node trust is assessed in to dimension functional trust recommendation trust. The effectiveness and efficiency of the proposed ART scheme is validated through extensive experiments. Trust management theme is applicable to a wide range of VANET application to improve traffic safety,mobility and environmental production with enhanced trustworthiness

Keyword:--

Attack-resistant trust management scheme, VANETs, Data trust, Node trust

Smart Parking

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Abstract:--

The project aims at designing an advanced smart parking system using IOT technology. The devices can be switched ON/OFF using a mobile through server(Wi-Fi). Internet of Things (IOT) plays a vital role in connecting the surrounding environmental things to the network and made easy to access those un-internet things from any remote location. The main aim of this is to reduce the traffic in the parking place. And generally people are facing problems on parking vehicles in parking slots in a city. The project "IOT based Smart Parking system" was designed such that the status of parking slots can be known from anywhere in the users webpage. This is achieved using Wi-Fi communication.

Working model of project in this, It's inevitable for the people to update with the growing technology .In this study we design a Smart Parking System which enables the user to find the nearest parking area and gives availability of parking slots in that respective parking area. And it mainly focus on reducing the time in finding the parking lots and also it avoids the unnecessary travelling through filled parking lots in a parking area. Thus it reduces the fuel consumption which in turn reduces carbon.

Keyword:--

IOT technology, Smart Parking System , Wi-Fi communication.

Experimental investigation on conventional concrete by Partially replacing E-waste as coarse aggregate

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Abstract:--

An experimental study was made on the utilization of E-waste particles as coarse aggregates in concrete with a percentage replacement ranging from 0 % to 20% on the strength criteria of M25 Concrete. Compressive strength, Tensile strength and Flexural strength of Concrete with and without E-waste as aggregates are carried out. The concrete specimens were tested on 7 and 28 days. E-plastic concrete has low unit weight and considerable ductility. The Compressive, split tensile and flexural strength were found to be decreased. However, the use of mixed E-plastic in concrete will add extra aggregate resource to the construction industry and it will be the one of the possible electronic waste disposal method.

Keyword:--

Coarse aggregates, E-plastic, Flexural strength, Split tensile

Growth, Optical and Quantum Chemical analysis of unidirectional grown Bis (guanidinium) 5-Sulfosalicylate (BGSSA) single crystal

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Abstract:--

Bis(guanidinium)5-sulfosalicylate(BGSSA) single crystal was grown by Sankaranarayanan-Ramasamy (SR) method from the solution of methanol and water in equimolar ratio. Good quality crystal with 50 mm length and 10 mm in diameter was grown. The grown crystal was subjected to single crystal X-ray diffraction analysis to confirm the crystal structure and it was found to be orthorhombic .UV-Vis-NIR spectroscopic study revealed that the SR method grown crystal has good optical transparency with wide optical band gap of 4.4 eV. Density functional theory (DFT) method with B3LYP/6-31-G (d,p) level basis set was employed and hence the first order hyperpolarizability and frontier molecular orbital analysis of the grown BGSSA sample were computed and analysed.

Keyword:--

X-ray diffraction, optical band gap, DFT, hyperpolarizability, frontier molecular orbital.

Press In Malabar Before 1947: A Historical Review

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Abstract:--

The press in Malabar has played crucial role in the shaping of modern Kerala .Admittedly it has been the most popular and powerful device of information instruction and propaganda. In recent time it has established itself after a period of struggle and fight for freedom of expression. It opened a wide window on the affairs of India as a whole and on the world at large. This paper intent to analyze role played by Mathruboomi, Deenabandu, Pachimodayam,Desabhimani and Al amen .More than all it mobilizes public opinion on socio- economic problems and focuses the attention of the government.

Keyword:--

Malabar, modern Kerala

Fuzzy Membership Function Based Localization of Spinal Cord in Computer Topographic Images

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Abstract:--

Devising an automatic method for detection and segmentation in medical images poses varied challenges. Formulating an effective delineation technique for extracting the region of interest (ROI), in complex structures like the spine, is an arduous process. In order to assist in this process, various semi-automatic techniques are prevalent for segmenting the object of interest, including methods based on a global threshold; however, a global threshold selection is not straightforward. Use of a single hard threshold is considered a source of segmentation errors. Automatic segmentation of bone in computed tomography (CT) images is critical for the implementation of computer-assisted diagnosis which has increasing potential in the evaluation of various spine disorders. Of the many techniques available for delineating the region of interest (ROI), active contour methods (ACM) are well-established techniques that are used to segment medical images. The project presents a methodology for automatic contour initialization in ACM and demonstrates the applicability of the method for medical image segmentation from spinal CT images. Initially, a set of feature markers from the image is extracted to construct an initial contour for the ACM. A fuzzified corner metric, based on image intensity, is proposed to identify the feature markers to been closed by the contour. A concave hull based on α shape, is constructed using these fuzzy corners to give the initial contour. The results show the method's robust performance in the presence of different noise levels.

The Statistical Tests as Predictive Analysers in Health Care Sector

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Abstract:--

In our day to day chores the medical field generates huge amount of data. The biomedical data is of enormous volume. The variety of the data generated in the health care sector escalates the complexity both in terms of storage and computation. Due to improper structuring and ignorance of effectiveness of this data, this indispensable data goes to trash. This data on proper structuring may lead to a lot of inferences and postulates when duly valued. In our present scenario there exists no means of proper analytics strategy to cluster and evaluate the data generated by the medical sector. This leaves the treasury of data hunts unnoticed and unaccustomed. The solution to the herculean task of addressing the data needs of this problem domain can be brought about only by the gizmo of big data. The needs of huge data storage and complex analytics of the medical sector can be contended with the emerging technology of big data. The various analytical tools that prevail in big data demonstrates to equip us with mysterious new discoveries. The modern clustering analysis may mark the beginning of a new era in the health care sector. The healthcare being the foremost need of our day to day life, big data is the only scope to mark a tremendous change in the medical sector and thus provide mankind an increased lifespan. May not to an increased life span it may provide the precaution as the repeated analysis of various data samples may mark the beginning of identification of new panorama for some life threatening malignant disease. This paper focuses on various sampling tests like ANOVA to prove the effectiveness of the therapy and the varied outcomes across subjects of diversified malignancy of the malady. Further the various statistical tests will incur the proved cogent therapy of treatment for individual syndromes. This involves data mining and knowledge based data discovery to extract the data the k-means clustering algorithms to structuring them and the big data tool(R programming) for statistical analysis. This paper aims at the scope of statistical tools that elevates the guidelines of today's health care.

Keyword:--

computation, complexity, storage, analysis, ANOVA tests, statistical tools, k-means clustering, knowledge based data discovery.

3D Mapping Using Drone

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Abstract:--

This abstract deals with the mapping of my college using the drone.The experience of mapping the college with the commercial UAV drone.To perform test ,my college is chosen. The drone used for this is Phantom 4D.The collected data were later elaborated using the drone software. The result of the software gives us 3D mapping. The applications using the drone is explained.

Keyword:--

UAV drone, Phantom 4D, 3D mapping .

St. Francis Xavier

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Abstract:--

Saint Francis Xavier was born on 7th April 1506 of a noble family in the family castle of Xavier, near Pamplona in the northern Spain. His Father Dr. Juan de Jassu, was the president and finance minister of the royal council of Navarre province. His mother was Maria de Azpilcueta. He joined the University of Paris in 1525 for his higher studies and obtained a master's degree in philosophy in 1530. He met Ignatius of Loyola in Paris who influenced him to understand the emptiness of the worldly desires and drew him to serve God. He was ordained a priest on 24th June 1537 along with Ignatius. As he was studying for priesthood, he heard of pearl fishery coast of India. He call came from pope paul III, as requested by the king of Portugal, that Xavier must go to India to work as a missionary. Accordingly Xavier left for India in the ship named "Santiago" and reached Goa in 1542. After nearly a year initially he worked in the Holy Spirit Hospital and taught catechism. Then he reached Manapad in September 1542. The town Manapad became the centre of his missionary activities. He worked tirelessly and organized social activities. He went to Colombo, Malacca, Amboina, Ternate and Japan. He made an attempt to enter China. Unfortunately he fell in while waiting for permission to enter China and died on 2nd December 1552. His incorrupt body was brought to Goa where it kept for public veneration.

Keyword:--

Francis Xavier, Missionary activity, Social activity .

Recognition of Musical Instruments by Machine

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Dr.P. Dhanalakshmi, Associate Professor, Department of Computer Science, Annamalai University, Chidambaram

Abstract:--

Nowadays human activities are more associated with machine. Machines had invaded into all human day today activities. Musical instruments were once played with the help of humans slowly by the years it has transformed largely machines have started occupying the role of human. The machine are programmed to identify and replicate the sound produced by musical instruments. This paper deals in recognizing output of various musical instruments like string, wind, percussion and keyboard music with the help of technology available in reading out unique audio signal quality. The acoustic features of musical instruments are classified into such as LPC (linear Prediction coefficients), LPCC (linear Prediction Cepstral coefficients), and MFCC (Mel frequency Cepstral Coefficients) are to be extracted for constructing a music instrument classification system. Each instruments outputs are analyzed with its audio signal. This paper aims to study the musical instruments classification based on selected features.

Keyword:--

Musical instruments, string, wind, percussion, keyboard, audio signal.

Energy Efficient scheduling algorithm in WSN

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Abstract:--

The most important research in the field of wireless sensor networks (WSNs) is Localization. The sensor nodes in WSNs are useful for various applications like intrusion detection, target tracking, environmental monitoring and network services etc. Wireless charging is a hopeful way to solve the energy constraint problem in sensor networks. While extensive efforts have been made to improve the performance of charging and communication in wireless rechargeable sensor networks (WRSNs), little has been done to address the operation scheduling problem. Inthis research work, a joint energy replenishment and scheduling mechanism so as to maximize the network lifetime while making strict sensing guarantees in the WRSN is simulated. Large-scale simulation results validate the design and show a 39.2% improvement of network lifetime over a baseline method.

Enhanced Security Technique of Wireless Sensor Network using Hybrid Cryptography

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Abstract:--

Wireless sensor network (WSN) is a collection sensor which is deployed remotely to sense the complicated area. It is used in various fields like military surveillance, disaster management and etc. Security is the most vital in network. Cryptography plays an important role for network security. Traditional cryptographic technique can't be applied to wireless sensor network because its resource limitation. The proposed model is a hybrid cryptography which is combination of both symmetric and asymmetric cryptographic techniques. Key is generated with the help of ECC and securely transmitted through ECDH protocol. Confidentiality of data is done through AES, Blowfish and ECC. Hashing technique MD5 is used for Integrity of data. It provides high security with efficient manner. It requires less memory, energy and computation time.

Keyword:--

WSN, Hybrid Cryptography, AES, ECC, Blowfish, MD5

Double Semi-Open Sets With Respect to a Double Grill

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Abstract:--

Semi open sets and semi continuity was first introduced and investigated by Levine in 1963. Coker in 1996, introduced the concept of intuitionistic sets developed from the classical intuitionistic fuzzy sets, which was originated by Zadeh in the year 1965. Later in the year 2005, J.G. Garcia and S.E.Rodabaugh suggested that "double fuzzy set" is a more appropriate name than " intuitionistic fuzzy set". So in this paper, we use the terminology of Rodabough and name the intuitionistic set as a double set and therefore double topology for the intuitionistic topology. It is observed from literature that the concept of grill is a powerful tool in topology. The aim of this paper is to introduce a generalized class of double semi open sets interms of double grill $\mathcal{D}_g$ Using an operator $\Phi_{\mathcal{D}_g}(A)$ defined on the collection of double sets in to the same collection ,we try to define a kuratowski's operator $\psi_{\mathcal{D}_g}(A)$ as $\psi_{\mathcal{D}_g}(A) = A \cup \Phi_{\mathcal{D}_g}(A)$. Ultimately we are able to define the double semi open sets on $\mathcal{D}_g$ and we name it as $\mathcal{D}_g$- semiopen . The properties of this set with respect to the double semi open set of Girija and Gnanambalཻlango was carried out. Studying the properties via grill will definitely have applications in the other fields of Science. So the results of this paper may be vital for further work in research.

Keyword:--

double set, double grill, double semi open set, $\mathcal{D}_g$-semi open.

Influence of Storage Period on the Thermal and Oxidation Stability of Jatropha Biodiesel and Their Blends

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Abstract:--

Biodiesel may be portrayed as a substitute or supplement for diesel. But its thickness, consistency, streak point, corrosive number (TAN), and base number (TBN) must be analysed thoroughly by using internationally accepted instrument.. Also, oxidation steadiness of the specimens is measured by the enlistment period utilizing proper instrument for different samples of biodiesels. Almost all specimens met the American standard detail in regards to the enlistment time frame, with the exception of Jatropha and its biodiesel. Most exceedingly perfect outcome for TBN esteem obtained from PME and COME.

Keyword:--

Biodiesel; Thermal stability; Oxidation stability; Antioxidants.

Experimental analysis of a DI diesel engine fuelled with Jojoba biodiesel and Coir pith producer gas operated in dual fuel mode

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Abstract:--

The current paper elaborates on the performance and emission characteristics of single cylinder DI diesel engine operated on dual fuel mode utilizing jojoba biodiesel blends as injected fuel and coir pith producer gas as inducted fuel. Initially, diesel & biodiesel blends were examined in individual and dual mode at constant producer gas flow rate of 21.69 kg/hour at optimal loading condition. Results depicted a fine decrement in both oxides of nitrogen and smoke opacity, while a marginal increment in carbon dioxide, carbon monoxide and hydrocarbon for all test fuels in dual fuel mode as compared to that of naturally aspirated mode of operation at optimal loading condition. It is also seen that all the prepared test fuels depict better exhaust in comparison to conventional diesel.

Keyword:--

Biodiesel; producer gas; dual fuel; engine; emission

Reforms of Swathi Thirunal Rama Varma

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Abstract:--

Rama Varma known to history as Maharaja Swathi Tirunal, is one of the most accomplished and enlightened rulers of the illustrious royal house of Travancore. He was born on the 16th April 1813 as the son of Gouri Lekshmi Bai, the ruling Queen and Rajaraja Varma Valiya Koil Tampuran of Changanacherry. As there was nomale heir to succeed Gouri Lekshmi Bai, the birth of baby prince provided on occasion for universalrejoicing to people all over the state and he came to be hailed as Garbhasrimam, ie, one who had claim to the throne even before his birth. According to the Ramavarma Vijaya, a Contemporary literary work, Swati Tirnal achieved proficiency in eighteen languages including Sanskrit, Malayalam, English, Telugu, Tamil, Marathi, Persian etc. under separate tutors at a very early age he could compose poems in all these languages, Among his many tutors the most outstanding was subba Rao who taught him English, Marathi, Political Science, Ethics and many miscellaneous subjects including even music and later served him also as Diwan of the state. Swathi Tirnal received a very sound education in the theory and practice of music at the hands of such veterans of karnatic music as Karamana Padmanabha Bhagavatar, Meruswami, Vativelu and a host of others Colonel Welsh who happened to meet the prince when he was only thirteen has recorded a very high opinion of his versatile abilities in his Military Reminiscences.

Keyword:--

Reforms, Swathi Thirunal Rama Varma, Travancore

Dalit Movement and Ayyankali- A Study

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Abstract:--

Mahatma Ayyankali was a popular leader of Dalits of Kerala who carried forward many reform movements for dalits (low caste people).In 1937 he was praised by Mahatma Gandhi when he visited Venganoor, Ayyankali's home town. He was the first labour leader from India who fought for equal rights of Dalit workers in Kerala. Yet he led in front a movement for democratizing public places and asserting the rights of workers even before the formation of any workers organization in Kerala. He belonged to Pulaya Community who were regarded as dalit.Till middle twentieth century. Kerala was a place filled with strange customs and discrimination based on caste and creed. Dalits were not allowed to pass through public places nor could their women cover their breasts in from of high caste people. Ayyankali himself was an illiterate person similar to Manu Script and fought against these discrimination. He was inspired a lot by Ayyavu's teachings. Ayyaguru was the harbinger of many social reform leaders of Kerala.

Keyword:--

Dalits Movement, Ayyankali, Kerala, Middle Twentieth Century, Pulaya Community

Modern History of Travancore

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Abstract:--

The modern history of Travancore begins with the rule of Bala Marthanda Varma, who ascended the throne in the year 1729 A.D. During the time of his accession, the political conditions were unstable due to rebellions and the incessant inroads made by the Nayak and Nawab forces. But, Marthanda Varma put a check to the invaders by seeking the assistance of the English East India Company. He even proved his ability by meeting the Dutch on the battlefield at Colachel on 10 August 1741. He dedicated his kingdom to the Lord Sri Padmanabhaswamy and this dedication took place on behalf of his tutelary deity.

Keyword:--

Modern History, Travancore, Bala Marthanda Varma, Colachel War

Optimization of Milling Process parameters of Monel K-500 by ANOVA methodology.

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Abstract:--

High super alloys find wider applications in modern industries such as Space vehicle, rocket engines, nuclear reactor, steam power plant and other high temperature applications. Monel K-500 is a high corrosion resistance material and provided high mechanical properties. Machining industries in modern trends are mainly focused on the achievement of high quality and productivity of products. Milling is a cutting process that uses a milling cutter to remove the material from the surface of material. In this experimental investigation of face milling operations of Monel K 500 plates with different process parameters such as spindle speed, feed rate and depth of cut. Optimum machining process parameters are great concern in manufacturing environment. Find optimum machining conditions of larger material removal rate (MRR) during milling process on Monel K 500 .The experiments are designed using L27 orthogonal array with process parameters are analyzed by signal to noise ratio and optimized by ANOVA methodology.

Keyword:--

Monel K-500, Milling process, Material removal rate, Optimization, ANOVA.

Transparent Computing

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Abstract:--

Transparent computing utilizes data and software—from the OS to applications to user data—that are stored on servers. Transparent Computing Security Architecture (TCSA), which builds user-controlled security for transparent computing by allowing the users to configure the desired security environments on demand. The intent of the TC program is to develop basic technologies that are separable and usable in isolation (e.g., within a given software layer/application environment, such as web middleware), while exploring the best way to integrate multiple TC technologies in an experimental prototype. The major characteristic of Transparent Computing involves two separations. They are the separation of software stack and hardware platform, and the separation of computing and storage. The system lets users demand heterogeneous OSes and applications upon them from centered simple servers, similar to choose different TV channels in daily life. As this computing paradigm is more widely used in the society, its security feature and advantages will become more and more attractive. Problems TC is trying to solve Terminal runs more quickly Storage efficiency Security, manageability and low-cost Device-oriented to user-oriented A way to SaaS - Software as a Service

Keyword:--

Monel K-500, Milling process, Material removal rate, Optimization, ANOVA.

Synthesis and characterization of cardanol-formaldehyde resins

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Abstract:--

This study presents the synthesis of cardanol-formaldehyde resins from cardanol. Cardanol-formaldehyde resins were synthesized by condensing cardanol with formaldehyde using malonic acid as catalyst. The resins were characterized by physico-chemical and spectral studies such as NMR and FT-IR. It shows that cardanol-formaldehyde resin possess higher specific gravity and viscosity due to higher degree of condensation between cardanol and formaldehyde.

Keyword:--

Cardanol; formaldehyde; malonic acid; spectral studies.

DWDM in Transmission System, a Review

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Abstract:--

Dense Wavelength Division Multiplexing (DWDM) is a key component of the world's communications infrastructure. The colossal growth in telecommunications services is possible today in part through optical networks, where DWDM systems allow much greater bandwidth over existing optical systems. DWDM is a means of achieving effective fiber-optic transmission. DWDM is a transmission technology by which we can transmit/multiplex/de-multiplex different wavelengths on a single fiber by which we can utilize maximum bandwidth via optical fiber cable. The fiber plant savings can be optimized by a factor of at least 32.

PSO inspired Hyperspectral Image Classification

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Abstract:--

Hyperspectral Remote Sensing technology is used for identification and detection of objects on the earth. Hyperspectral images provide accurate classification than multispectral images but it suffers by over dimensionality problem. In order to overcome this drawback Daubechies wavelet with Four taps (DB4) and Eight taps are used for extracting the features and to improve the classification performance Particle Swarm Optimization (PSO) technique is used for feature selection. Support Vector Machine (SVM) classifier is used for efficient classification. In this paper image acquired from AVIRIS sensor Indian pines dataset is used. The overall accuracy obtained for DB4 and DB8 is 92% and 90% respectively

Keywords : --

Hyperspectral Image Classification,Particle Swarm Optimization (PSO), Support Vector Machine.

Multicolor Transformation Using Locally Linear Embedding Algorithm

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Abstract:--

In this paper, an effective Locally Linear Embedding (LLE) algorithm is used for still images and image sequence to transfer the colors. The performance of this new algorithm is demonstrated through simulation and comparisons to another state of the art method. This algorithm is mainly based on color transfer between images based on the simple statistics and locally linear embedding. LLE algorithm is not restricted to one-to-one image color transfer and can make use of more than one source images to transfer the color in different regions in the target image. The new measure is highly consistent with human perception, even compared to other current color transfer quality measures such as PSNR and MSE.

Keywords : --

Color Transfer, K-means, Image Quality Measure