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International Conference on

Recent Trends in Multi-Disciplinary Research

ICRTMDR - 18

20th & 21st December 2018

Thoothukudi, Tamilnadu

Jointly Organized by

The Departments of Computer Science / Chemistry / Mathematics
& The Internal Quality Assurance Cell (IQAC)

A.P.C.Mahalaxmi College For Women

and

Institute For Engineering Research and Publication(IFERP)

ICRTMDR - 18

International Conference on Recent Trends in Multi-Disciplinary Research

Thoothukudi, Tamilnadu
20th & 21st December, 2018

Organized by:

A.P.C.Mahalaxmi College For Women

and

Institute For Engineering Research and Publication

Rudra Bhanu Satpathy,

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 Trends in Multi-Disciplinary Research (ICRTMDR - 18)** 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"(ICRTMDR-18) 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 **ICRTMDR - 18** 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 **ICRTMDR - 18** 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 **ICRTMDR - 18.**

I believe attending scientific events makes us update with progressing technology and academic scopes **ICRTMDR - 18** 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 Trends in Multi-Disciplinary Research (ICRTMDR - 18)* held at *A.P.C. Mahalaxmi College for Women – Thoothukudi* on the 20th & 21st December – 2018, in association with *Institute for Engineering Research and Publication (IFERP)*.

A.P.C. Mahalaxmi College 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, 215 papers were presented at the conference and were accepted for publication in the Conference Proceedings.

Reviewing papers of the *ICRTMDR - 18* 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 *ICRTMDR - 18* 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 *ICRTMDR - 18* proceeding will be a credit to a large group of people, and each one of us should be proud of its successful outcome…

ICRTMDR-18

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

The President
 A.P.C.Mahalaxmi College for Women
Thoothukudi, Tamil Nadu

It is a great pleasure for me to congratulate all the participants in the International Conference on Recent Trends in Multi-Disciplinary Research (ICRTMDR - 18) 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 enrich their experience by way of exchange of ideas and sharing of knowledge. Science and Engineering play a vital role in the modern life, profoundly influencing the course of human civilization. All the great scientific discoveries and info-technological achievements in our country have improved the Indian economic status and have opened up many new avenues to the new generation to grow in a technologically advanced environment. The main goal of the conference is to educate and motivate the participants to develop skill dynamics which must be of high priority of Indian technical education for the science, engineering and information technology development in our country in extraordinary dimensions. We will endeavour to provide the best through lectures, paper presentations and student activities which will be an integral 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 this second International Conference will provide innovative outcomes to help face the emerging challenges in Science, Engineering & Information Technology. I congratulate all the members of the staff who have been working hard for the success of the conference. I whole heartedly appreciate the sincere efforts of the entire team of this great event . I wish them all a grand success!

Tmt.C.Subbulakshmi,
The Secretary,
A.P.C.Mahalaxmi College For Women,
Thoothukudi, Tamil Nadu, India

It gives me immense pleasure to know that our college has taken up the great challenge of organizing an International Conference on Recent Trends in Multi-Disciplinary Research (ICRTMDR - 18) sponsored by Institute for Engineering Research and Publication (IFERP). The facets of Science and Engineering are changing very fast. Hence Science and Technology has to be infused with new variety to play a decisive and beneficial role in advancing the well being of all sections of our society. The ICRTMDR – 18 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. Assemblage 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 ICRTMDR – 18 will be of great academic value for scholars and general readers. I convey my blessings and good wishes to all members of the ICRTMDR - 18 family, for their dedicated involvement in this great event. Since its inception A.P.C.Mahalaxmi College for Women is moving towards the pinnacle of academic excellence and serving the society with quality education. I hope we are blessed with many such laudable happenings in future also!

Dr. K.Sathya Bama
Principal, A.P.C Mahalaxmi College for Women,Thoothukudi

I am happy to inform that the International Conference on Recent Trends in Multi-Disciplinary Research (ICRTMDR - 18) sponsored by Institute for Engineering Research and Publication (IFERP) is being conducted at A.P.C.Mahalaxmi College for Women, Thoothukudi. I am happy and commend all the Staff and Students of various departments who worked hard to make the Conference a reality. Conferences are providing opportunities for researchers and faculty members and students for networking and collaboration among the peer groups along with publications in a peer reviewed journals/proceedings. It is really good that such Conferences are held to enhance the spirit of innovation among Faculty Members, Research Scholars and Students. I am sure the Conference will provide an opportunity for the participants to share their knowledge and get updated. We are living in a time where boundaries of knowledge are being advanced at a rapid pace, the Conference will help to chart new stream of research for sure. I encourage all participants to present their knowledge to strengthen India as developed and prosperous nation

 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 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.

Convenor Message

Dr.N.Meenakumari
Head & Asso. Prof. of Mathematics
A.P.C Mahalaxmi College for Women,Thoothukudi

 "It necessity is the mother of invention, scientifically developed production is the mother of scientific research"

-Edwin Kennelly

I am glad that the Department of Computer Science, Chemistry, Mathematics and The Internal Quality Assurance Cell (IQAC) of A.P.C.Mahalaxmi college for Women, Thoothukudi, jointly organizing a two day International Conference on "Recent Trends in multi-Disciplinary Research (ICRTMDR-18)" on 20th and 21st December 2018 in association with The Institute for Engineering Research and Publication (IFERP).

I am happy that leading research experts serving as Resource persons, highlighting the significant aspects of research. My heartfelt thanks are due to the co-ordinaters and members for their dedication and commitment towards the allotted works.

With great pleasure, I do acknowledge the encouragement and support extended by our President Thiru.A.P.C.V.Chokalingam, Secretary Thirumathi.C.Subbulakshmi and Principal Dr.K.Sathya Bama for all our endeavours.

I feel it a great pleasure to welcome all the participants and I wish the International Conference a great success.

Dr.V.Shyamala Susan

Head,Asst Professor of Computer Science,
A.P.C Mahalaxmi College for Women,
Thoothukudi

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

On behalf of the organizing committee of International Conference on Recent Trends in Multi-Disciplinary Research (ICRTMDR - 18), 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 – Thoothukudi. The main objective of 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 highlight and share novel ideas.

We are honoured to have eminent personalities here in this special occasion. This exemplary exposure has been possible with the help of the academic community. They carefully reviewed and accepted 260 papers out of 320 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 have been given a unique identification number and are to be published in scientific databases. As a convener of the conference, I extend my sincere thanks to our college President, Secretary and Principal for being our source of inspiration in organising this program. My sincere gratitude to IFERP for their impeccable efforts and their belief in the excellence of ICRTMDR – 18

 I also specially thank my colleagues and also 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 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.

Apart from 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 ICRTMDR – 18

Mrs.H. Kohila Subathra Christy

Head and Assistant Professor of Chemistry,
A.P.C. Mahalaxmi College for women,
Thoothukudi

Blessed am I having this wonderful opportunity of welcoming the participants of ICRTMDR – 18, organized to share and enhance the knowledge of each and every individual in this scientific world. To achieve quality in higher education we have to elevate ourselves which could be possible by way of participating in such conferences. Living in a knowledge era, constant updation becomes mandatory, so as to provide a purposeful curricula to the younger generation to cope up with the scientific development happening in this modern world.

We have given a good opportunity for those who have a thirst in knowing the present technological developments and also share their ideas. The conference aims to bridge the researchers working in academia and other professionals through research presentations and keynote addresses in current technological trends. Furthermore, this conference will also facilitate the participants to expose and share various novel ideas.

At the outset, let me place on record my gratitude to the honorable president of our institution Shri. A.P.C.V. Chockalingam and our beloved Secretary Shrimathi. Subbulakshmi Chockalingam for the invincible intellectual enthusiasm and enormous strength endowed upon us in all our academic pursuits.

I extend hearty appreciation and thanks to all the authors, volunteers and persons who directly or indirectly contributed to the success of the conference. Their cooperation and full support, has made this conference a reality. My sincere thanks to IFERP for their vision, positive guidance for their belief in the excellence of ICRTMDR – 18.

Let us fall in line with Nobel prize winner Arthur Schawlow who states that "To do successful research we don't need to know everything, you just need to know of one thing that isin't known"

ICRTMDR -18

International Conference on Recent Trends in Multi-Disciplinary Research

Keynote Speakers

Dr. Dhileep Krishnamurthy
Chief Scientific Officer
Zhejiang NHU Company Ltd
China

BIOGRAPHY

Dhileep Krishnamurthy (Chief Scientific Officer),a senior pharmaceutical expert and a global industry consultant. He have been advising corporate, public sector and government entities across the globe - specifically in the USA, China and India geographies over the past 25 years.

Specialties:- API R&D Strategy development and implementation
- People and Scientific leadership (multicultural and multinational)
- Discovery and Development of competitively advantaged routes for NCE, Generics and LCM APIs
- Implementation of R&D turnarounds
- Demonstrated cost savings over 5 million US$ for many NCE and Generics API using R&D initiatives

Over 20 years of scientific and R&D leadership experience in academic, multinational big pharma, CRO, CMO and generic pharmaceutical companies in synthetic organic chemistry, API process R&D and providing CMC support for filing IND, NDA, and DMF. Key experience in R&D strengthening using total synthesis, competitively advantaged route scouting, asymmetric catalysis, chemo catalysis, technology transfer of APIs, and building customer vendor relationship. Demonstrated leadership experience in managing QbD by DoE, bio-catalysis, analytical R&D, PAT, high throughput polymorph and catalysis screening using automation, and crystal engineering.

Motivational leadership style with a record of building highly motivated technical teams for innovation and productivity.

Dr. Ir. Bambang Sugiyono Agus Purwono
Senior Lecturer in Mechanical Engineering Department
Indonesia

BIOGRAPHY

Dr. Ir. Bambang Sugiyono Agus Purwono, M Sc born in Maospati - Indonesia, March 5, 1954. Lecturer in Mechanical Engineering Department – State Polytechnics of Malang. Strata-1 in Mechanical Engineering – Faculty of Technology - University of Brawijaya, Malang (1982). Master Degree in Industrial Management and Technology – ITB – Bandung (1988) and Doctor in Management Science – Faculty of Economics and Business – University of Brawijaya, Malang (2011).

Textbooks has already published are Strategic Planning, Production Management, Thermodynamics, Heat Transfer, Maintenance Management, Engineering Manufacturing Process, and Research Methodology.

As a speaker about Entrepreneurship and Cooperative in Republic of Democratic Timor Leste (2008). As a speaker in International Conference about Management Strategic and Renewable Energy in Malang, Bali, Yogyakarta, Bandung, Jakarta, Melbourne, and Hong Kong Polytechnics University. As a keynote lecture in International Conference on Green Technology for Environmental Pollution Prevention and Control (ICGTEPPC) about Renewable Energy in National Institute of Technology – Tiruchirappalli – India (2014). As a honorable speaker in Second World Congress on Pollution Control and Advances Environmental Engineering (WCPCAEE) about Renewable Energy Strategy in Bangkok Thailand (2017).

Research focus on Strategic Management, Green Technology, Micro Hydro Power Plants, Vertical and Horizontal Axis Wind Turbines, Solar Cell Energy and Water Treatment Plants.

Member of World Society of Sustainable Energy Technology (WSSET).

Member of Indonesian Management Association (AMA).

Dr. Masroni
Senior Lecturer in Mechanical Engineering Department
Indonesia

BIOGRAPHY

Drs. Masroni, MM born in Blitar - Indonesia, December 25, 1952. Lecturer in Mechanical Engineering Department – State Polytechnics of Malang. Strata-1 in Mechanical Engineering – Faculty of Technology - Universitas Negeri Malang - Indonesia (1986). Master Degree in Management – Technological University of Philipines - Manila (1991).

Textbooks have already published are Engineering Manufacturing Process.

As a speaker about Renewable Energy in Second World Congress on Pollution Control and Advances Environmental Engineering (WCPCAEE) about Renewable Energy Strategy in Bangkok Thailand (2017).

Research focus on Strategic Management, Micro Hydro Power Plants, Vertical and Horizontal Axis Wind Turbines, and Steam Power Plants.

Dr. K.S.Basavarajapp
Professor and Head, Dept of Mathematics
BIET, Davangere

BIOGRAPHY

Dr.K.S.Basavarajappa, a Professor and Head of Mathematics Department at Bapuji Institute of Engineering & Technology College in Davangere, Karnataka.

Completed Ph.D [Mathematics] from Indian Institute of Technology, Roorkee 2002. Presently working as Dean for VTU Exams, BIET. He has 31 Year's experience in working. Received best teacher award by the institution for giving 100% results few times.

His Dissertation is "Analytical Solutions of some problems in Biomechanics"

Extra/Co-curricular Activities like Took Participation in handling the leadership in the institution functions. Preparing the Institution Brochure, Magazine, BIETECH VOICE. Conducting the special Lectures.

Mr. Murali Sundaram
Technology Consultant-Global Technology
Cognizant Technology Solutions[CTS]

BIOGRAPHY

I have developed technology strategies for organizations / clients to adopt emerging trends, Design thinking, Block Chain adoption, Ideation, Reverse Innovations, Crowd Sourcing, and Start-ups integration

I have enabled emerging technologies in Mobile, Big Data, Internet of things, Chatbots, Wearable computing, VR /AR adoption and 3D printing integrating vendor solutions with practice solutions. I have lead technology modernization initiatives for with key focus on emerging technologies

I have actively proliferating disruptive innovations and emerging technologies with colleges and universities. I have helped them setup labs in the respective areas (Cloud, IoT, 3D printing, Immersive experience, Software Engineering or even in Innovation labs). I am actively evangelizing these aspects in conferences, workshops, and professional forums and blogging about it.

My twenty plus years of professional network is rich with technologists, practitioners, executive leaders, serial entrepreneurs, innovators and academicians

Specialities : Design Thinking, Smart Cities, Speed Geeking, Crowd sourcing, Disruptive innovations, Cloud computing, Block Chain, Wearable computing, Internet of things, Chatbots, VR / AR. 3D Printing, Crow Funding, Start-up workshops

Experience :
  ➢ **Consultant at Cognizant Technology Solutions**
Fast tracking emerging technologies, supporting with technology outlook group to build technology vision for
  ➢ **Global Technology office, Technology Advisor at Early Stage Startups**
Advising on LAst Mile Platform solution - Android as platform addresses heterogeneous back ends and
 apps landscape has answer for enterprise, social and cloud apps. Partners with two vendors and evaluating
  ➢ **Advisory Council Member at Harvard Business Review**
  ➢ Technology Consultant at AU-KBC Research Centre
  ➢ **Distinguished technologist-** Emerging technologies, Cloud Computing, Big Data, Mobile Computing and Internet of things.
  ➢ **Distinguished technologist at CSC**
  ➢ **Technology Advisor at Madras Institute of Development Studies**
  ➢ **Technology Advisor at Infor**
  ➢ **Consultant at Ness Technologies (part of Innova solutions acquired by Ness)**
  ➢ **Project Manager**
  ➢ **ERP Consultant at Kuehne + Nagel**
  ➢ **ERP Consultant at Toyota**
  ➢ **Technology Consultant at Visa**

- ➢ **Technology Consultant at ADVIZOR Solutions**
- ➢ **Sr.Consultant at Lexmark**
- ➢ **Technology Consultant at SWIFT**
- ➢ **Consultant at Hewlett-Packard, Apollo**

Education:
Indian Institute of Technology, Madras
B Tech, Engineering, 1976 - 1981
Activities and Societies:
- ➢ IIT Alumni
- ➢ Central Polytechnic, Adyar Pre Technical Course, Engineering, 1975 – 1976

CPT Alumni

ICRTMDR-18

International Conference on Recent Trends in Multi-Disciplinary Research

Thoothukudi, Tamilnadu 20th & 21st December 2018

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ABSTRACTS

IFP Ideals in Near Subtraction Semigroups

A. Balavickhneswari, M. Phil scholar, A.P.C. Mahalxmi College for Women, Thoothukudi.

V. Mahalakshmi, Assistant Professor of Mathematics, A.P.C. Mahalaxmi College for Women, Thoothukudi.

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Abstract:--
       A near subtraction semigroup X is called an IFP near subtraction semigroup provided that for all $a, b, n \, \epsilon \, X, ab = 0$ implies $anb = 0.$ In this study, the IFP condition in a near subtraction semigroup is extended to the ideals in near subtraction semigroup. If X/P is an IFP near subtraction semigroup, where P is an ideal of near subtraction semigroup X, then we call P as the IFP-ideal of X. The relations between prime ideals and IFP-ideals are investigated. It is proved that a right permutable or left permutable equiprime near subtraction semigroup has no non-zero nilpotent elements and then it is established that if X is a right permutable or left permutable finite near subtraction semigroup, then X is a near field if and only if X is an equiprime near subtraction semigroup. Also, attention is drawn to the fact that the concept of IFP-ideal occurs naturally in some near subtraction semigroup, such as P-near subtraction semigroup, Boolean near subtraction semigroup, weakly (right and left) permutable near subtraction semigroup, left (right) self distributive near subtraction semigroups, left (right) strongly regular near subtraction semigroups and left (w-) weakly regular near subtraction semigroups.

Keywords:--
       Near subtraction semigroup, prime ideal, IFP, nilpotent element, equiprime near subtraction semigroup.

Anti-microbial selenium nanoparticles fabricated by Bio-mediated synthesis using seed extract of *Cassia angustifolia.*

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Abstract:--
The present paper discusses the reduction of selenite to selenium nanoparticle using the seed extract of Cassia angustifolia. Synthesised nanoparticles are confirmed by colour change from yellow to orange. Phytochemical present in the seed extract is responsible for the long-term stability of bio mediated selenium nanoparticle without adding stabiliser. The characterisation of nanoparticle where handled at different concentrations of selenite solution of pH ranging from 2 to 12. The prepared nanoparticles were characterised by UV–Vis spectroscopy, FTIR, XRD, FESEM with EDAX and HRTEM. The particle size distribution was found to be 80-100 nm. Anti-microbial activity of selenium nanoparticle was tested and found to be effective in different microbes.

Keywords:--
Selenium nanoparticles, bio mediated synthesis, Cassia angustifolia, anti-microbial activity

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A Broad Study on Personalized Web Search

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Abstract:--
Internet is a global network connected world wide with wealth in information is a boon to human. Desired Information is retrieved through web search engines. Search engine is indispensable software that operates between the user and the information repository that retrieves relevant information according to the query given in an automated manner. Even though Search engines do good job they may mislead users in many ways. Also most times the users may find difficult to get their preferred information in precise. As the utility of search engine is affected by inevitable factors there is a need to improve the utility of search engine. Web search personalization is the solution to provide users with their desired information. Web search personalization is a challenging process as the search engine has to efficiently acquire user's real time information. This paper focuses on various functions, issues, recent trends, approaches and evaluation techniques on personalized web search..

Keywords:--
Personalized web search, Search Engine.

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Characterization of Weak Bi-Ideals in Near Subtraction Semigroups

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Abstract:--

In this paper with a new idea, we define weak bi-ideal and investigate some of its properties. We characterize weak bi-ideal by bi-ideals of near subtraction semigroups. In the case of left self distributive S-near subtraction semigroups. We establish necessary and sufficient condition for weak bi-ideal to be bi-ideal and strong bi-ideal. This concept motivates the study of kinds of new regular near subtraction semigroups in algebraic theory especially regularity in quad near subtraction semigroups and fuzzy logic. A subalgebra B of (X,-) is said to be a weak bi- ideal if $B^3 \subseteq B$. Also we prove that the two concepts of bi-ideals and weak bi-ideals are equivalent in a left self distributive near subtraction semigroups. Also we obtain equivalent conditions for weak bi-ideal to be a near field.

On Some Neighbourhood Prime Labeling of Graphs

A.Catherine, Assistant Professor of Mathematics, Dr.G.U.Pope College Of Engineering, Sawyerpuram

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Abstract:--
> A labeling or numbering of a graph G with q edges is an assignment of labels to the vertices of G that induces for each edge uv a labeling depending on the vertex labels f(u) and f(v). A neighbourhood prime labeling of a graph is a variation of a prime labeling in which the vertices are assigned labels from 1 to $|V(G)|$ such that the gcd of the labels in the neighbourhood of each non-degree 1 vertex is equal to 1. A graph which admits neighbourhood prime labeling is called a neighbourhood prime graph. In this paper, neighbourhood prime labelings for $Z-P_n$, Fan, Double Fan, Sunflower, Antiprism, have been discussed.

Key words:--
> Prime labeling, Neighbourhood prime labeling, Neighbourhood of a vertex.

AMS Subject Classification: 05C78

Synthesis, Characterization and Antioxidant studies of Silver   nanoparticles using Hibiscus flower extract

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J.Bharathi, Department of Chemistry, Kamaraj College, Thoothukudi ,Affiliated to M.S. University , Tirunelveli.

Abstract:--

Silver nanoparticles have received attention due to their physical, chemical and biological properties and were thus applied in numerous biomedical applications. In this study we have done the green synthesized silver nanoparticles using Hibiscus flower extract. The prepared nanoparticles was characterized by using analytical techniques such as FT-IR, UV-visible, AFM. The metal oxide nanoparticles was studied by UV-visible absorption spectroscopy studies. The stretching and bending vibrations of metal oxide are characterized by using FT-IR techniques. The particle sizes and morphology of nanoparticles were determined through Atomic force Microscope (AFM). The silver nanoparticles were highly active towards antioxidant activities.

Keywords:--

Ag-NPs, Hibiscus, antioxidant, FT-IR, UV-visible, AFM.

Interval Valued Fuzzy weak hyper bi - Γ - ideals in Γ-hypernear-rings

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Abstract:--

In this paper we introduce interval valued (i- v) fuzzy weak hyper bi$-\Gamma$-ideals in $\Gamma -$ hyper near rings and obtain some properties. An i$-$v fuzzy set $\bar{\eta}$ of M is called an i-v - fuzzy hyper weak bi-Γ-ideal of M if

i) $inf \, \bar{\eta} \, (Z) \supseteq \underset{z \in x-y}{min^i}\{\bar{\eta}(x), \bar{\eta}(y)\}$ for all $x, y \in M$.

ii) $\overline{\eta}(x\alpha y\beta z) \supseteq \min^i\{\overline{\eta}(x), \overline{\eta}(y), \overline{\eta}(z)\}$ for all $x, y, z \in M$ and $\alpha, \beta \in \Gamma$.

Keywords ::--

Hyper gamma near ring, i – v fuzzy ideal, i –v weak fuzzy ideal, i – v weak bi- -ideals

Experimental Study on Concrete with Replacement of Fine Aggeregate by Copper Slag and Styrene Butadiene

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Abstract:--
  Raw materials of Concrete are becoming scare nowadays. And the alternative materials are looked into to attain the expected strength of the concrete with cost effectiveness. Hence, fine aggregate replacement is one of the ongoing researches of the country. Since, aggregate occupies 70% of the volume in the Concrete mix the replacement of Fine Aggregate is explored. Waste materials from the industries and cost effective materials to be used in the research for the production of Concrete without affecting its strength.

This work focus on replacing fine aggregate in Concrete in order to improve the strength characteristics of Concrete. An effort has been made to replace the fine aggregate with Copper Slag and Styrene Butadiene in proportions, on trial and error basis by keeping water-cement ratio as 0.36 to attain the optimum strength. The focus is on the optimum content of copper slag and styrene butadiene to be replaced in the fine aggregate. Strength and Performance of the Concrete will be evaluated in comparison with the conventional Concrete. Further, Thermal properties of Concrete made with the replacement to be studied.

Energy of Graphs

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Abstract:--

The concept of energy of graph was introduced by I. Gutman in the year 1978. Let G be a graph with n vertices and m edges and let $A = (a_{ij})$ be the adjacency matrix of a graph. The eigen values $\lambda_1, \lambda_2, \ldots \lambda_n$ of A assumed in non increasing order, are the eigen values of the graph G. As A is real symmetric, the eigen values of G are real with sum equal to zero. The energy E(G) of G is defined to be the sum of the absolute values of the eigen values of G. i.e., $E(G) = \sum_{i=1}^{n} |\lambda_i|$. In this paper, the relation between the energies of some standard graphs are compared with their Middle, Inflated and Product graphs.

AMS Subject Classification: 05C50

Ker Words:--

Energy of graphs, Adjacency matrix, Eigen values

Effect of Aluminium on Growth, Structural, Mechanical and Thermal Properties of Ninhydrin Single Crystals

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Abstract:--

Research in organic materials is an interesting phenomenon due to their nonlinear optical effects for optical communication, optical computing, second harmonic devices and other electro-optical applications. Ninhydrin is one of such organic materials, with high melting point and it is a compound with two hydroxyl groups attached to the same carbon atom. The addition of some transition metal ions is expected to influence the growth kinetics, habit modification and large size single crystals. Pure and aluminium nitrate doped ninhydrin single crystals were grown by slow evaporation method. The powder X-ray diffraction analysis was done to calculate the lattice parameters of the pure and doped crystals. The vibrational frequencies of various functional groups in the crystals have been derived from FT-IR analysis. The mechanical strength of the crystal was found out using Vickers microhardness test. Thermal behaviors of the grown crystals have been examined by thermo gravimetric/differential thermal analysis. The second harmonic generation efficiency was employed by powder Kurtz method.

Keywords :-

Organic crystal, X-Ray diffraction method, FT-IR analysis, Vickers microhardness test, second harmonic generation (SHG).

Efficient Processing of Queries with Set Predicates using Reduced Function based Approach

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Abstract:--
  Query Processing is the process of obtaining the desired information from a database system in a predictable and reliable manner. Efficient processing of queries is an important requirement in many interactive environments that involve massive amounts of data. Efficient query processing in domains such as the Data Warehousing, multimedia search and distributed systems has shown a great impact on performance. The complex SQL queries consist of many scalar-level operations to support the comparison between group of tuples with their attributes and values. Such queries are challenging for a database engine to optimize. But they can be easily implemented with very simple set-level semantics. In this paper, we developed an efficient algorithm using Reduced Function based Approach for processing queries with set predicates. The efficiency of our technique is demonstrated by running experiments using the WorldCup98 data set.

Keywords:
Data warehousing, optimize, Set predicates, SQL, Reduced Function based Approach, query processing, efficiency.

Check List of Birds in Tamiraparani Riverine Wetlands - Thoothukudi District, Tamilnadu

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Abstract:--

Well vegetated wetlands seem attractive to wetland bird species. The absence of a specific and proper nesting site may affect the abundance and diversity of wetland bird species. A total of 30,000 number of bird belonging to 88 species and 35 families were recorded from the 25 selected Wetlands of Thoothukudi District. The recorded 30000 number of bird population will not remain as such. If protective measures are not taken 88 species of birds tend to decrease in coming years, because Thoothukudi District wetlands are facing grave threats for their existence. The main threats are encroachment, garbage dumping, urbanization, land filling and unscientific fishing etc. Secondly there has been no clear demarcation between the wetland area and the housing area. Thirdly invasive plants like Ipomia and hyacinth are the major threats to the wetland birds. Unless the Government takes an urgent sustainable management protocol to solve the problems facing the wetlands and its flora and fauna diversity, in due course the whole area become deserted.

Keywords:--

Riverine wetland, Threats, Bird species, Protection.

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Prediction Using Data Mining Techniques and Tools

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Abstract:--

Data mining is a process of extracting knowledge by analyzing various past data bases and predict the end result or take appropriate decision. This data mining process poses many challenging issues while performing research, analyzing raw data of the past records and predicting may also lead to wrong decision result few times. Direct application of methods and techniques, developed under related studies in machine learning, statistics and database systems cannot solve these problems. It is required to perform dedicated and appropriate analytical studies to invent new data mining methods or to develop integrated techniques for efficient and effective data mining, whereas data mining itself has formed an independent and innovative field of study. Data mining is a widely used platform to perform various decisions making in many Industry like finance, agriculture, banking, government departments, engineering, hospitals, law & order etc. This paper deals with detailed study of Data Mining, its techniques, tasks and related tools.

Keywords:--

Data mining Techniques, Data mining algorithms, Data mining tools.

Anti Fuzzy Bi - ideals in Boolean like Semi Rings.

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Abstract:--

Boolean like semi-rings were introduced by K.Venkateswarlu, B.V.N.Murthy and N.Amarnath. A Boolean like ring is a commutative ring with unity & is of characteristic 2. The concept of a fuzzy subset of a non-empty set was introduced by Zadeh. In this paper, we introduce the notion of anti fuzzy bi-ideals in Boolean like semi-ring R and also obtain some of its properties. Let R be a Boolean like semi-ring and μ be the fuzzy set of R. Then μ is said to be a anti-fuzzy bi-ideal of R if

i. $\mu(x - y) \leq \max\{\mu(x), \mu(y)\}$

ii. $\mu(xyz) \leq \max\{\mu(x), \mu(z)\}, \ for \ all \ x, y, z \in R.$

Keywords: -

Boolean like semi ring, fuzzy ideal, fuzzy bi – ideal, anti fuzzy ideal, anti fuzzy bi – ideal.

Trust-Based Assignment in Service-Oriented Mobile Ad Hoc Networks with Multi-Objective Optimization

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Abstract:--
  Mobile Ad hoc Networks (MANETs) is a communication paradigm, which does not require a fixed infrastructure they rely on wireless terminals for routing and transport services and self-promotion attacks. To represent the applicability, we consider a task-driven service-oriented MANET that must handle dynamically arriving tasks to achieve multi conflicting objectives. We devise a trust-based heuristic algorithm based on auctioning with the local storage of node status to solve this node-to-task assignment problem with multi-objective optimization requirements. It outperforms a non-trust-based counterpart using blacklisting techniques while performing close to the ideal solution quality with perfect knowledge of node status over a wide range of environmental conditions. We conduct an extensive sensitivity analysis of the results with respect to key design parameters and alternative trust protocol designs. It's also developing a table-lookup method to apply the best trust protocol parameter settings upon detection of dynamically changing environmental conditions to maximize multi-objective optimization performance.

Keywords:--
  MANET, Multi-Objective Optimization, TQR, Routing, QoS.

A Comparative study of various machine learning classifiers on Choroidal Neovascularization data

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Abstract:--
     Choroidal Neovascularization (CNV) is a severe retinal disease in older adults. CNV disease is a major cause of blindness and visual impairment by abnormal growth of blood vessels. It is seen that in many medical studies, it is difficult to diagnose a person suffering from that disease. It might end up in a wrong prognosis and prior medication if the disease is not properly assessed. Hence the usage of engineering techniques will very gently be helpful for the medical practitioners to diagnose CNV with much ease. The image processing techniques are used to process the retinal images affected by CNV and finally the features extracted from the images are fed to a classifier which should have competence of identifying the severity level of CNV. It is a big task to select an opt classifier for the better classification of the disease. In this paper, a comparison has been done among different machine learning classifiers such as Logistic Regression, Support Vector Machine, K-Nearest Neighbors', Naive Base, 'Decision Tree' and Neural network classifier. The concerned classifiers are tested and evaluated based on accuracy and prediction speed.

Keywords:--
     Choroidal Neovascularization, machine learning classifiers.

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Removing Coding and Inter Pixel Redundancy in High Intensity Part of Image

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Abstract:--
This paper presents a novel lossless image compression algorithm that is carried out by removing coding and inter pixel redundancy in high intensity part of image . Initially a input image is segmented into high and low intensity part of which only high intensity part of the image is considered. Three different kind of image compression algorithms are applied to the high intensity part and the results are compared. Image compression performance parameter like Compression Ratio (CR),Bits Per Pixel(BPP),Peak signal to Noise Ratio(PSNR) are evaluated to analyze the compression performance.

Keywords:--
Compression; High intensity; DCT; variable block size; SVD ;Biorthogonal;

Analysis of Modified Low Energy Adaptive Clustering Hierarchy Protocol in Wireless Sensor Network

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Abstract:--
Advances in wireless technology, digital electronics, and MEMS (Micro-Electro Mechanical-Systems) have enabled the deployment of specifically immense scale wireless sensor networks (WSN). A wireless network consisting of an specifically immense number of small sensors with low-power devices can be an effective implement for accumulating data in a variety of environments like civil and military applications. The main issue in WSN is inhibited battery life. So the efficient utilization of available battery power is one of the major factors to be considered. Studies on WSNs shows that cluster predicated network architecture are the most energy efficient approach when compared with direct transmission and multipath technique. From the different cluster predicated protocol, LEACH (Low Energy Adaptive Clustering Hierarchy) shows the better performance in terms of energy consumption. The data accumulated by each sensor is communicated through the network to a single processing center called base station that utilizes all reported data to determine characteristics of the environment or detect an event. Clustering sensors into groups, so that sensors communicate information only to local cluster-heads and then the cluster heads communicate the aggregated information to the processing center, may preserve a plethora of energy. LEACH is clustering predicated protocol that utilizes randomized rotation of local cluster-heads to evenly distribute the energy load among the sensors in the network. LEACH uses localized coordination to empower scalability and robustness for lively networks, and incorporates data fusion into the routing protocol to reduce the amount of information that must be transferred to the base station. But LEACH is predicated that each sensor nodes contain equal amount of energy which is not valid in authentic scenarios Modified LEACH protocol (Mo-LEACH) has been adaptable to manage non-uniform energy distribution characteristic of a dynamic sensor network. We can make the LEACH network much more efficient by reducing the energy utilization during Cluster Head cull procedure and communication between far away nodes to base station.

Keywords :—
LEACH, Mo-LEACH, Cluster Head, WSN

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A Detailed Study on Virtual Machine Consolidation Techniques in Cloud Computing

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John Peter S, Associate Professor and Head, Department of Computer Science , St.Xavier's College, Palayankottai, Tirunelveli, Tamilnadu.

Abstract:--
Virtual machine consolidation techniques have been studied for a long time in the domain of cloud computing. The goal of VM consolidation is to minimize energy consumption by switching servers to the sleep mode, when they are not utilized as expected. This paper aims to provide a detailed study of the existing VM consolidation approaches and outline the notable advantages and disadvantages. Furthermore, it highlights that VM placement sub problem for an under loaded host and an overloaded host should be handled in a different way.

Keywords :—
virtual machine consolidation, virtual machine placement.

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Antibacterial Activity of Green Synthesised Nickeloxide Nanoparticles Assisted By Terminalia Chebula

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Muthu Risinka M, Department of Chemistry, V.O.Chidambaram College, Thoothukudi – 628001, Tamilnadu, India.
Subramaniaraj J, Department of Chemistry, V.O.Chidambaram College, Thoothukudi – 628001, Tamilnadu, India.

Abstract:--

In this study, ecofriendly and simple green route was employed for the synthesis of nickel oxide nanoparticles. The NiO nanoparticles were prepared using Nickel chloride and dried fruit extract of Terminalia chebula. The UV-Vis analysis shows blue shifted peak at 317 nm depicting the smaller size of the synthesized nanoparticles as compared to bulk NiO. FTIR spectrum of the NiO nanoparticles shows the presence of vibration modes of Ni-O bonds and that of the phytoconstituents in the plant extract confirming the role of plant extract as the capping agent. The XRD pattern clearly indicates the formation of face centered cubic (FCC) crystal lattice of NiO nanoparticles and the average size of NiO nanoparticles was calculated using scherrer's formula as 53.43 nm. The AFM study of NiO nanoparticles pictured the irregular rough surface of the nanoparticles. The antibacterial activity of the green synthesised NiO nanoparticles against various gram positive and gram negative bacteria revealed that they are highly active against bacteria in polar solvents.

Keywords:--

Green synthesis, Nickel Oxide Nanoparticles, Terminalia chebula, Antibacterial activity.

Preparation and Characterization of Betacyclodextrin doped Nanosize Poly (o-toluidine)

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C. Vedhi, Department of Chemistry, V.O. Chidambaram College, Thoothukudi, India

Abstract:--
        Surfactant doped Poly(o-toluidine) (POT) was synthesized in an aqueous solution of o-toluidine and non-ionic surfactant of Betacyclodextrin (BCD) by chemical method by varying the o-toluidine to surfactant ratio. The role of doping on the structure and morphological changes in poly (o-toluidine) were characterized by FTIR, UV-Visible spectroscopy, cyclic voltammetric (CV), SEM, TGA, XRD, TEM and electrochemical impedance spectroscopy measurements and the results were analyzed. The resulting polymers exhibit an enhanced solubility in solvents like DMSO, DMF, acetone, acetonitrile and THF. UV-Vis spectra display the absorbance around 800 nm assigned to polaron form of POT. The FT-IR spectra reveals that the amine vibration peak at 1598 cm-1 is shifted to 1591 cm-1 and it confirms the interaction of POT with BCD. The SEM micrographs shows distinct morphological features of BCD doped POT. The incorporation of BCD in POT is confirmed by EDAX. The XRD results show the particle size of POT 1 is 30 nm and in the case of POT 5 the particle size is 73 nm. Electrochemical behavior was studied by CV and exhibits one oxidation peak (385.9 mV) and one reduction peak (-109.7 mV) for BCD doped POT. Impedance spectra display POT with maximum surfactant concentration exhibits maximum conductivity. The TGA results suggest a higher thermal stability for BCD doped POT than that for the pure POT. The nano-sized polymer was confirmed by TEM image.

Keywords:
Poly (o-toluidine), Betacyclodextrin, XRD, Cyclic Voltammetry, morphology.

Cyclic Voltammetric Studies of a Simple Ascidian Phallusia Nigra

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S. Sankaravadivu, Assistant Professor, Department of Chemistry, A.P.C Mahalaxmi College for Women, Thoothukudi.

D. Shanmuga Priya, Assistant Professor, Department of Chemistry, A.P.C Mahalaxmi College for Women, Thoothukudi.

Abstract:--
Ethanolic extract of Phallusia nigra was investigated for its chemical constituents. Cyclic voltammetric technique was used to assess its antioxidant activity. The results show the good antioxidant activity of the extract and the electrochemical behaviour of the constituents in it at glassy carbon electrode.

Keywords:--
Phallusia nigra, Cyclic Voltammetry Electrode

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2 – Graphoidal Path Cover of Some Special Graphs

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Abstract:--

   B.D.Acharya   and   E.Sampath kumar   introduced   concept   of   graphoidal cover . The concept of 2-graphoidal path cover was introduced by K. Nagarajan et.al. A 2- graphoidal path cover of a graph G is a partition of edge set of G into paths in which every vertex is an internal vertex of atmost two paths and the minimum cardinality of it is a 2- graphoidal path covering number $\hbar_2$ (G). In this paper, we find the $\hbar_2$ (G) for some special graphs.

Keywords : -

   Graphoidal   cover , acyclic graphoidal cover , 2- graphoidal path cover , 2 – graphoidal path covering number .

Contributory Broadcast Encryption Using Group Key Agreement

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S.Raghunath Reddy, Asst. Professor, G.P.R.EC, Kurnool.
Y.R.Janardhan Reddy, Asst. Professor, G.P.R.EC, Kurnool.

Abstract:--
Encryption is utilized in a correspondence system to anchor information in the transmitted messages from sender to recipient. To execute the encryption not withstanding decoding transmitter and beneficiary should have contrasting encryption moreover with unscrambling keys. For transportation preventive measure information to amass required communicate encryption (BE). Communicate Encryption authorizes a sender to safely communicate to any subset of people and require a believed assembling to scatter unscrambling keys. Group key agreement (GKA) unrefined engage a social event of people to obtain a run of the mill encryption key by methods for open frameworks with the objective that simply the get-together people can unscramble the figure works mixed under the shared encryption key, anyway a sender can't dismiss an explicit part from deciphering the figure compositions. Here, we interface these two musings with a half and half harsh proposed as contributory Broadcast encryption (ConBE). Along these lines, that social occasion of people obtain typical open encryption key while each part holds an unscrambling key. Going before this model, introducing a ConBE plotting of short figure works. We demonstrate the Contributory Broadcast Encryption (ConBE) outline, which is amalgamation of GKA and BE. Get-together key announcement, contributory communicate encryption, and provable security.

Keywords:--
ConBE, GKA, BE

3D Printing in Biomedical Applications – A Review

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K.Venkatesh Prasad, Student,Mepco Schlenk Engineering College, [4] Student, Mepco Schlenk Engineering College

J.Steve Minold Raj, Student,Mepco Schlenk Engineering College, [4] Student, Mepco Schlenk Engineering College

Abstract:--
     This study deals with the 3D Printing technology, a type of additive manufacturing in which the 3D object is imitated to be visual within the allocated period of time interval that resembles similar in considered aspects of real world object. The material used here includes powders of polymer mass that are solidified by directional laser heating. While talking about BIO-PRINTING, the material used is living tissues, calcium source, vascular tissue, placental fluid, embryonic stem cell etc., and the entire organ is regenerated from the tissue, which was printed in the enzymatic incubation medium. The organ is similar to the patient's organ; the patient's organ information is get read from many scanning devices. Coupling all the images will result in the three dimensional structure. The printing is done with the help of the 3D printer on the basis of obtained 3D image and the artificial organ (imitation of real organ) is being made. The making of organ is controlled by, speed of filling tissue, temperature at which the process is carried out, bonding agent to bond the tissues together, incubation medium, type of tissue, body immunity, stem cell growing phenomenon, filler head movement respective to all the axes, slicing path, etc.. The procedure is simple related to the rapid prototyping; the produced artificial organ (human bone, human kidneys, bladder, etc., can be replaced with the defected organ. Thus, the controlled action of all the parameters can lead to the organic replacement with the birth similar organs.

Keywords:--
     3D picturization, build-up, slicing, organic growth.

Bioenergy Potential of Cassia Siamea and Delonix Elata for Power Generation

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Abstract:--

Biomass is a renewable energy source in a way that is economically feasible and environmentally sustainable. There is an increased interest in using waste wood for energy production. A fuel characteristic of biomass is a significant fact to recommend a material as a feed stock for energy conversion. In this study, we developed a protocol to put forward the Cassia siamea and Delonix elata as a bioenergy source for energy conversion process. The selected woody materials are in the Fabaceae family. They have long been cultivated for firewood on plantations in tropical areas. The selected biomass materials are subjected to spectral analyses for volatility confirmation (hydroxyl and amine groups). Proximate analyses also carried out for the selected samples to study the percentage of volatility. The results have been used to predict the low moisture, high fixed carbon and high volatility content of the woody material. In EDAX analysis the selected woody material Cassia siamea and Delonix elata have higher proportion of carbon and lower proportion of oxygen. It leads to high calorific value for Cassia siamea (4047 kcal/kg) and Delonix elata (3954 kcal/kg). The study of thermal, spectral and elemental analyses apparently indicates that the selected woody materials Cassia siamea and Delonix elata are amenable as biomass energy resource for power generation.

Keywords:--

Calorific value, proximate analysis, Cassia siamea, Delonix elata.

Antimalarial Activity of Identified Chemical Classes of *Caulerpa Scalpelliformis* from Tuticorin Coast against Chloroquinone Sensitive *Plasmodium Falciparum*

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Parthiban, Department of Chemistry, Kamaraj College, Tuticorin, Affiliated to M.S. Univeristy, Tirunelveli.

Margaret Beula, Department of chemistry Scott Christian College, Nagercoil, Tamil Nadu, India.

Sundaram Ravikumar, School of Marine Sciences. Department of Oceanography and Coastal Area, Studies, Alagappa University, Thondi campus, 623 409, Tamil Nadu, India

Banergee Rajkumar, Department of chemistry Scott Christian College, Nagercoil, Tamil Nadu, India

Sundaram Prasannkumar, School of Marine Sciences. Department of Oceanography and Coastal Area, Studies, Alagappa University, Thondi campus, 623 409, Tamil Nadu, India

Abstract:--

In recent times, the marine plants, especially, the seaweeds are considered as one of the potential raw materials in the preparation of drugs to treat infectious diseases. In the present study an attempt is made to isolate the unique chemical classes from the ethanolic crude extract of *Caulerpa sealpelliformis* by sequential extraction using column chromatography and identified by Mass, FTIR ,^{13}C NMR and ^{1}H NMR spectroscopic techniques. Phenanthrenol derivatives and N-(2-hydroxy-1-hydroxymethyl octadec-3-enyl)-propionamide have been isolated from the ethanolic extract of *C. scalpelliformis*. In order to develop an antimalarial drug from the seaweed which are known to have potentiality in the malarial infected treatment. The *in vitro* antiplasmodial activity of the isolated compounds *viz.,* N-(2-Hydroxy-1-hydroxymethyloctadec-3-enyl)-propionamide and Phenanthrenol derivative were assessed against *P. falciparum* and the IC_{50} values which falls under the active category as they fall in the range $IC_{50}< 5$ to < 50 µg ml^{-1}. Thus it has maximum inhibition of parasitaemia for the treatment of malaria.

Index terms:--

Caulerpa scalpelliformis, P. falciparum, Mass , FTIR, ^{13}C NMR, ^{1}H NMR

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A Study on Pseudo Commutative Seminear Rings

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C. Raja Lakshmi, M. Phil Scholar, A.P.C. Mahalaxmi College for Women, Thoothukudi, Tamil Nadu, India.

Abstract:--
A near ring N is called pseudo commutative if $xyz = zyx$ for every x, y, z in N. It is quite natural to investigate the corresponding definition in the field seminear ring. In this paper, we define a seminear ring N to be pseudo commutative seminear ring if $xyz = zyx$ for every $x, y, z \in N$. It is proved that in a pseudo commutative seminear ring, every idempotent is central and the homomorphic image of pseudo commutative seminear ring is also so. It is observed that every commutative seminear ring is pseudo commutative seminear ring and the converse is true if it has an identity. The condition under which a weak commutative seminear ring is pseudo commutative and vice versa is obtained. Also we proved that every pseudo commutative seminear ring has $(*, IFP)$. A pseudo commutative seminear ring M is reduced and also every ideal in M is completely semiprime if it is regular.

Index Term:--
Seminear rings, regular, idempotent, central element, commutative seminear rings, weak commutativity, IFP ideals.

A Study on Normal Gamma Seminear Rings

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Abstract:--

The concept gamma near rings was introduced by Bhavanarisathayanarayana and studied by several authors like Young ukcho, R. Balakrishnan. It was later extened to seminear ring and gamma seminear ring by R. Perumal. et. al. In this paper we derived some results on left (right) normal gamma seminear ring by using the concepts on regularity and idempotent elements. In a regular normal gamma seminear ring, it is proved that both $a\gamma b$ and $b\gamma a$ are idempotents. A left normal gamma seminear ring is regular if and only if $a\Gamma R = e\Gamma R$ and it is right normal whenever e is idempotent. The definition of left (right) – r – normal gamma seminear ring is given in this paper along with the property that every left – r – normal is left normal and homomophic image is preserving the left normal property if r = 2. Every left ideal of left (right) normal gamma seminear ring is idempotent also on a particular case when r = 2.

Index Term:--

Gamma seminear rings, left and right normal, idempotent, regular, left – r – normal, right – r – normal.

Synthesis of Copper Oxide Nanoparticles Using *Phallusia Nigra* Extract

D. Shanmuga Priya, Assistant Professor, Department of Chemistry, A.P.C Mahalaxmi College for Women
S.Sankaravadivu, Assistant Professor, Department of Chemistry, A.P.C Mahalaxmi College for Women
S.Sudha, Assistant Professor, Department of Physics, A.P.C Mahalaxmi College for Women
H. Kohila Subathra Christy, Assistant Professor, Department of Chemistry, A.P.C Mahalaxmi College for Women

Abstract:--

The field of nanotechnology is one of the most active researches nowadays in modern material science and technology. Eco friendly methods of green mediated synthesis of nanoparticles are the present research in the limb of nanotechnology. The present work leads to the synthesis of nanoparticles from 1mM CuCl2 solution through ethanolic extract of Phallusia nigra as reducing as well as capping agent. Synthesized nanoparticles are characterized under UV-Vis spectroscopy at the range of 350-420nm. The peak showed at 251nm. The chemical groups studied using FT-IR analysis. Further studies (SEM, XRD and AFM) confirm the shape of nano particles. The higher extract shows higher antioxidant activity found by cyclic voltammetric studies. Based on the result obtained it can be said that the Phallusia nigra can efficiently used in the production of copper oxide nanoparticle and it could be utilized in various fields such as biomedical, nanotechnology and so on.

Key words: --

Copper oxide nanoparticles, *Phallusia nigra*

On Two Sided Near Idempotent Gamma Semigroup (TSIN Gamma Semi Group)

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M. Parvathi Banu, M.Phil Scholar, St. Xavier's College (Autonomous), Palayamkottai, Tamilnadu, India.

Abstract:--

The generalisation of semi group into gamma semigroup was introduced by Sen in 1981 and developed some theory like idempotency, commutativity. Sirojkul, Sripakorn et.al. extended many classical notions of gamma semigroups with respect to one sided idempotent property.

In this paper, we define two sided near idempotent gamma semigroup (TSIN gamma semi group) along with the equivalence relation λ_t and ρ_t. The rectangular definition is also given for a 2-sided near idempotent gamma semigroup with the TFAE that, it will become a gamma semi group with the following identities $x\gamma y\gamma z\gamma y = x\gamma y$ and $x\gamma y\gamma x\gamma z = x\gamma z$; $x\gamma y\gamma z = x\gamma z$; $x\gamma a\gamma b = x\gamma b\gamma a$ and $a\gamma b\gamma x = b\gamma a\gamma x$ implies that $x\gamma a = x\gamma b$ and $a\gamma x = b\gamma x$ for all x,y in S and a,b in S and γ in Γ. Also it is proved that near commutativity will imply commutative property in a TSIN gamma semigroup. The definitions of left (right) regular and left (right) normal TSIN gamma semi groups are given with the property that left (right) normality will imply left (right) regularity and hence in turn will give the right (left) near commutative property.

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Completely Prime Quasi ideals in Ternary Gamma Semiring

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M. Kavitha, M.Phil (Mathematics), St. Xavier's College (Autonomous), Palayamkottai, Tirunelveli, Tamilnadu, India

Abstract:--
 The theory of ternary algebraic systems was introduced by D. H. Lehmer in the year 1932. He investigated certain ternary algebraic systems called triplexes which turn out to be commutative ternary groups. After that W. G. Lister studied about ternary semirings. T. K. Dutta and S. Kar introduced and studied some properties of ternary semiring which is a generalization of ternary rings. Dheena. P, Manvisan. S made a study on P - prime ideals in semirings. In this paper, the notion of P - prime and Completely P - prime ideals in Ternary Gamma Semiring are defined with certain properties. Also, we introduced the concept of P - prime ideals and Completely P - prime ideals in Ternary Gamma Semiring. A necessary and sufficient condition for an ideal to be a Completely P - prime ideal in Ternary Gamma Semiring is derived. The condition for an ideal to be a prime ideal is provided with TFAE such that $< a >< b >< c > \subseteq A$ implies $a \in A$ or $b \in A$ or $c \in A$. Also, the property for P - prime ideal in a ternary gamma semiring is defined with an if and only if condition for an ideal to be a P - prime ideal.

Keywords:--
 Gamma Semiring, Ideal of A Ternary Semiring, Prime, Completely P - Prime and P - Prime Ideals in Ternary Semiring.

Continuous Fuzzy Maps

Dr .M. Muthukumari, Assistant Professor.,PG & Research Department of Mathematics,A.P.C. Mahalaxmi College for women, Thoothukudi, Tamil Nadu , India.

Abstract:--
   In Metric space, topological space and generalized topological space we have the concept of continuous functions. Recently Fuzzy maps are introduced. In this paper we introduce the continuity of fuzzy maps. We study various continuous Fuzzy maps.

Bounded Fuzzy Sequences

Dr .M. Muthukumari, Assistant Professor., PG & Research Department of Mathematics, A.P.C. Mahalaxmi College for women, Thoothukudi, Tamil Nadu , India.

Abstract:--

      Sequence is an important tool to characterize many concepts in metric space. Recently Fuzzy sequence is introduced and studied. The Convergence and Divergence of fuzzy sequences are studied. In this paper we introduced bounded fuzzy sequence in R and we study some properties.

A Study on GS - Near Ring

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C. Raja Lakshmi, M.Phil Scholar, A.P.C. Mahalaxmi College of Women, Thoothukudi, Tamil Nadu, India.

Abstract:--

Near-rings are generalized rings. If in a ring (N,+, .) we ignore the commutativity of + and one of the distributive laws, (N, +, .) is a near-ring. If we do not stipulate the left distributive law, (N, +, .) is a right near-ring. In this paper, the notion of GS-near ring is given as one of the substructure of a right near ring. It is proved that a quasi weak commutative near ring is a GS-near ring if it is regular. Also we showed that the homomorphic image of a GS-near ring is also a GS-near ring. We obtained that N/I is a GS-near ring for every ideal I of a GS-near ring N. Also we showed that every GS-near ring is isomorphic to a subdirect product of a sub directly irreducible GS-near ring. We observe that GS-near ring has Pierce decomposition with the constant near ring and the zero symmetric near ring and every GS-near ring is subcommutative. Also, every zero-symmetric GS-near ring has (*, IFP) if it is pseudo commutative near ring. In the same context, we proved that GS-near ring has strong IFP and it satisfies P_4 property.

Keywords:--

Right near-ring, zero-symmetric, subcommutativity, sub directly irreducible near-rings, quasi weak commutative near-ring, pseudo commutative near-ring, IFP, strong IFP, regular..

Trends in Public Debt and the Burden of Interest Payments in Tamil Nadu since 1990-91

Dr. A. Jeyanthi, Associate professor of Economics, Govindammal Aditanar College for Women, Tiruchendur

Abstract:--

Growth of debt servicing has a great financial impact on State Finances and Debt Management. Repayment of the State debt and interest payments affect the financial position of the State Governments in India. Interest payments are made from the revenue expenditure by the State Governments. This paper attempts to explain the growth trend of outstanding debt of the Governments of Tamil Nadu since 1990-91. It also attempts to calculate and analyse the burden of public debt of the government of Tamil Nadu since 1990.

A Study on Restrained Triple Connected Two Domination Number of a Graph

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A.Robina Tony, Research Scholar , Department of Mathematics, St.Mary's College (Autonomous), Thoothukudi, Tamil Nadu, India

Abstract:--

The concept of triple connected graphs with real life application was introduced by considering the existence of a path containing any three vertices of a graph G. G. Mahadevan et. al., introduced the concept of triple connected domination number of a graph. In this paper, we introduce a new domination parameter, called restrained triple connected two domination number of a graph. A subset S of V of a non – trivial graph G is said to be a restrained triple connected two dominating set, if S is a restrained two dominating set and the induced subgraph <S> is triple connected. The minimum cardinality taken over all restrained triple connected two dominating sets is called the restrained triple connected two domination number of G and is denoted by $\gamma_{2rtc}(G)$. Any restrained triple connected two dominating set with γ_{2rtc} vertices is called a γ_{2rtc}- set of G. We determine this number for some standard and special graphs and obtain bounds for general graph. Its relationship with other graph theoretical parameters is also investigated.

Keywords:-

Triple connected graphs, restrained triple connected, restrained triple connected two domination

The Positive Effects of Globalization and Information Technology on English Language Teaching

Dr. E.S.Uma Maheswari, Assistant Professor(Sr.Gr.), English Government College of Engineering, Tirunelveli, Tamil Nadu

Abstract:--
      The aim of this paper is to prove that what has made English a global language and outline the positive effects of globalization and information technology on English Language Teaching. Globalization and information technology are two sides of the same coin. Today the whole world can be in one's palmtop. As a result, the impact of information technology can be felt everywhere – offices, factories, homes, educational institutions, hospitals, railway stations, airports, bus stations, restaurants, grocery shops and so on. Information technology seems to be the master technology at the moment. Even the fine arts cannot flourish without technological props. In such a technology driven world, how can English Language Teaching take place successfully without adapting itself to the changing circumstances? The spread of English plays a major role in the expansion of knowledge. As most of the important books of science, technology and other fields of knowledge are written in English, scholars can enter the large domain of knowledge. So, by learning English, they can become enriched and make their own contribution to knowledge. English is the language of information technology, tourism and travel, international relations and telecommunications. So, opportunities await those who are competent in English. These are the pragmatic value of knowing English which are opened up by the widespread use of English. English Language Teaching is considered to be a kind of service industry. This means that English language is seen as a commodity, and teaching it is a service provided for people. Furthermore, English language is essential to the acquisition of ICT skills. The Global use of English has not only led to the modification of the learning objectives within the communicative approach, but has also enhanced the development of appropriated language pedagogies, i.e. new approaches to English Language Teaching which take into account cultural background and the specific needs of students.

Keywords:
 English Language Teaching, Globalization, Information Technology, Positive Effect.

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A Study on Idempotent Commutative Gamma Semigroup

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P. Meenakshi, Assistant Professor of Mathematics, A. P. C. Mahalaxmi College for Women, Thoothukudi,Tamil Nadu, India.

B. Utthirach Selvi, M.Sc Scholar, Department of Mathematics, A. P. C. Mahalaxmi College for Women, Thoothukudi,Tamil Nadu, India.

Abstract:--

     The concept of semigroup theory was introduced by A.H. Clifford et. al and extended by many authors like Mchean, David et.al. The algebraic theory of commutative semigroup was studied and extended by M. A. Taiclin, A. P. Biryukov. The concept of idempotent commutative semigroup was studied by D. Radha and P. Meenakshi with some structures like semi-regular, normal, quasi-normal on it. In this paper, we have introduced the notion of Idempotent Commutative Gamma Semigroup and the definition of semi gamma regular, semi gamma normal and quasi-gamma normal semigroups. Also it is proved that, an idempotent commutative gamma semigroup is left(right) gamma normal if and only if it is left(right) gamma quasi normal. Any idempotent commutative gamma semigoup is gamma regular if and only if it is gamma normal and left(right) gamma seminormal if and only if it is left(right) gamma semi regular. And any quasi gamma normal is both semi gamma regular, semi gamma normal and converse is also proved as a characterization theorem.

Keywords: -

     Idempotent element, commutativity, normal, quasi normal, semi normal, regular, quasi regular, semi regular.

Presence of Copper in Soil and Its Effect on Plant Growth (Mustard Plant)

Dr. Kalairasi Roselind, asst. Professor, Departmentg of Zoology, Sri Meenakshi Govt. Arts College For Women (a), Madurai

Abstract:--
      Copper plays a key role in pollution especially soil pollution. Copper was selected for the study of soil pollution which in turn affects the growth of the plants. This work was carried out in many culture pots. The Copper sulphate was taken and is mixed in the range of 1gm/5kg of soil, 2gm/5kg, 4gm/5kg and 8gm/5kg. One is considered as the control and there we put no copper sulphate, but only 5kg soil. The sample was collected at 30th, 45th and 60th days respectively and it was analyzed. The present study revealed that the copper induced the shoot, root, leaves in 1gm/5kg soil i.e. in low concentration, copper induced the growth rate of mustard plant but in 8gm/5kg soil the copper highly reduced the growth rate. It is there suggested that Cu present in high concentration in the soil is toxic to the biota. At the whole plant level Cu is an effective inhibitor of vegetative growth and induces general symptoms of senescence. Excess Cu inhibits a large number of enzymes and interferes with several aspects of plants biochemistry including photosynthesis, pigment synthesis and membrane integrity.

Keywords:-
      copper, mustard plant, soil pollution.

Some New Sets In Ideal Space

Dr. M. Navaneethakrishnan, Associate Professor, PG & Research Department of Mathematics, Kamaraj College, Thoothukudi.

Abstract:--

An ideal I on a topological space (X, τ) is a nonempty collection of subsets of X which satisfies the conditions (i) $A \in I$ and $B \subset A$ implies $B \in I$ and (ii) $A, B \epsilon I$ implies $\bigcup B \in I$. A topological space (X, τ) with an ideal I is called an ideal space and it is denoted by (X, τ, I). For any subset A of X, A^* is defined as $A^* = \{x \in X \, / \, A \cap U \notin I \; for \; every \; U \in \tau(x)\}$. If $cl^*(A) = A \cup A^*$ then $\tau^* = \{U \subset X / cl^*(X - U) = X - U\}$ is a topology on X which is finer than τ and called as $*-topology \; or \; ideal \; topology \; on \; X$. In this paper we define $*-semi \; open \; set$, $semi * - open \; set$, $*-regular \; open \; set$, and $regular * -open \; set$. Also we study the Properties of these sets.

Keywords:--

ideals, ideal space, ideal topology, *-open set and *-closed set.

r – Regular Gamma Near Rings

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S. Suguna, M. Phil. Scholar, St. Xavier`s College, Palayamkottai, Tirunelveli, Tamilnadu, India

Abstract:--
In this paper, we introduce the notion of r – regular gamma near ring M, such that if for each a in M, there exists $e\gamma e = e$ in M where $a = a\gamma e$, $e \in <a|$, $\gamma \in \Gamma$, and $<a|$ is the left ideal generated by a. If a gamma near ring M is r – regular gamma near ring, then $M = a\Gamma M$. If M ia r – regular gamma near ring with 1 and has IFP, then $a = a\gamma e$ implies that $a = e\gamma a$. Here, it is proved that every principal ideal is generated by an idempotent element in a r – regular gamma near ring. A r – regular gamma near ring is regular if every N - Γ – subgroup is an ideal of M. Also, every ideal is semi prime ideal in a r-regular gamma near ring. And a completely prime ideal is always maximal. If a gamma near ring M is r – regular near ring then every ideal I of M is r – regular gamma near ring. In this paper, the definition of symmetric gamma near ring is introduced and it is proved that every symmetric r – regular gamma near ring is reduced.

Keywords:
Gamma near rings, regular gamma near rings, reduced, IFP, left ideal, principal ideal, completely prime ideal, maximal ideal

Information Needs of Small Ruminant Farmers to Develop Mobile Based Application Software – An Appraisal

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Abstract:--
      Efficient dissemination of technological information from the research system to farmers and reporting of farmers' feedback is one of the critical inputs in transfer of technology. Information and Communication Technology (ICT) is one of the means whose potential can be exploited to strengthen the bridge between research system and farming system. Hence, the present study has focused to identify and prioritize the information needs of small ruminant farmers to develop mobile based application software. Data were collected from 40 researchers of Tamil Nadu Veterinary and Animal Sciences University, 60 extension personnel of the State Animal Husbandry Department and 100 small ruminant farmers of Tirunelveli Districts by well structured interview schedule which contains 48 items under five sub-heads. The responses for each item were measured on a five point continuum i.e., most needed, more needed, needed, less needed and least needed. The mean was calculated and the item above the mean i.e 24 items were considered as the identified needs that include topics on breed & breeding (three), feeding (five), management (five), disease control (six) and marketing (five). Based on the needs identified and prioritized, the content were organised, script prepared both in Tamil and English languages, video clipping, photos collected and mobile based application software is being developed in android platform.

Key words:-
      Information needs, Mobile app., Small ruminant farmers

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On Quasi Weak Commutative Semi near Ring

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R.Rajeswari, Assistant Professor,PG & Research Department of Mathematics, A.P.C.Mahalaxmi College for Women, Thoothukudi , Tamil Nadu , India

Abstract:--

W.G.Van Hoorn and B.Van Rootselaar discussed the general theory of semi near rings. In general, commutativity of semi near rings with identity element was introduced by V.S.Ramachandran. In this paper, Weak commutativity and Quasi weak commutativity in semi near rings are discussed. A weak commutative semi near ring with left identity is a quasi weak commutative semi near ring and a quasi weak commutative semi near ring with right identity is a weak commutative semi near ring. These results are proved here. Also, for every ideal I of R, (I ; S) is an ideal of R in a quasi weak commutative semi near ring and added with regular property, every ideal is completely semi prime and satisfied the property P$_4$.

Keywords: -

Semi near rings, zero – symmetric, left(right) identity, regular semi near ring, left(right)ideal, Prime ideal, Semi prime ideal, Completely semi prime ideal.

On Contra g*α-continuous functions

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T.Delcia, Research Scholar, Department of Mathematics, St.Mary's College(Autonomous),Thoothukudi , Tamil Nadu,India. Affiliated to Manonmanium Sundaranar University,Abishekapatti, Tirunelveli ,India.

Abstract:--
In this paper,we introduce a new class of functions called contra g*α-continuous functions in topological spaces.some characterizations and several properties concerning contra g*α-continuous functions are obtained.

Key words:-
Contra g*α-continuous,almost contra g*α-continuous,contra g*α-irresolute,g*α-locally indiscrete

Subject Classification 54C08, 54C10

Development and Standardization of Moringa Oleifera Flower Powder Incorporated Food Products

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Abstract:--

Nutritional problems like PEM, anaemia and vitamin A deficiency continue to plague a large proportion of Indian children. Moringa oleifera flower contains adequate amount of calcium, iron, vitamin C and fiber for the women, children and old age people. Moringa oleifera is widely used in India, since the Ayurveda and Yunani medicinal systems, use it for the treatment of several ailments. The flowers have many therapeutic values for human beings. But it was less utilized by the people. Hence, the present study was undertaken to use the M. oleifera flowers for the development food products. The M. oleifera flowers powder was prepared by dehydration method and the food products such as vermicelli, chappathi and idli powder were prepared by the incorporation of M. oleifera flowers powder at various concentrations (5%, 10% and 15 %). The sensory evaluation results revealed that, 15 % of M. oleifera flowers powder incorporated Idly powder, 10 % incorporated Chappathi and 5 % incorporated Vermicelli were accepted by most of the people. The nutrient content of100 gm of Moringa oleifera flower powder was analysed and was reported as 3.2% of ash, 5.18% of moisture, 12 g of protein, 3% of fiber, 44.8 mg of vitamin C, 48 mg of calcium, 11 mg of iron, 32 mg of phosphorus and 160 μg of β carotene. The biochemical analysis of Moringa oleifera flower incorporated idli powder was carried out and it was reported as 5% of ash, 9.20% of moisture, 42 g of protein, 3.50 of fiber, 24 mg of calcium, 46 mg . Moringa oleifera flower powder incorporated products were stored upto 30 days without undergoing any deteriorative change under both room and refrigeration condition. The present findings provide a new strategy to utilize the M. oleifera flower powder as nutritional as well as functional ingredient for eradicating many of the diseases.

On left bipotent Γ semi near ring

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Abstract:--

The concept Γ - near ring was introduced by Bhavanari sathyanarayana and studied by several authors like Young uk cho, R.Balakrishnan with P(r,m) near rings. It was later extended to semi near ring and left bipotent semi near ring by R.Balakrishnan and R.Perumal. In this paper, we have defined a structure called Left Bipotent Γ semi near ring, M. It is proved that a left bipotent Γ semi near has no non zero nilpotent elements; M is left bipotent if and only if every radical is left ideal. Further it is proved that in a left bipotent Γ semi near ring with identity $x^3=x$, every element is idempotent; A left bipotent Γsemi near ring is simple whenever it is right cancellative.

On S - Near Rings and S' - Near Rings with Right Bipotency

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Abstract:--
       A right near ring $(N, +, \cdot)$ is an algebraic system with two binary operations such that (i) $(N, +)$ is a group - (not necessarily abelian) with 0 as its identity element, (ii) $(N, \cdot)$ is a semigroup (we write xy for $x \cdot y$ for all x, y in N) and (iii) $(x + y)z = xz + yz$ for all x, y, z in N. We say that N is zero symmetric if $n0 = 0$ for all n in N. N is called an S - near ring or an S' - near ring according as $x \in Nx$ or $x \in xN$ for all $x \in N$. A subgroup M of N is called an N-subgroup if $NM \subset M$ and an invariant N-subgroup if, in addition, $MN \subset M$. An element a in N is said to be distributive, if $a(b + c) = ab + ac$ for all b and c in N; N is called distributively generated (d.g), if the additive group of N is generated by the multiplicative semigroup of distributive elements of N.

       A near ring N is defined to be right bipotent if $aN = a^2N$ for each a in N. In this paper, we have proved some more results on right bipotent near rings by using the concepts of S' - near ring ; subcommutativity ; regularity ; reduced property etc. It is proved that every right bipotent near ring is an S' - near ring and it is also S - near ring if it is also subcommutative. Every regular near ring is central and reduced if it is right bipotent. Some special characterizations are obtained in such a way that, a reduced right bipotent near ring is a near field if $N = N_d$ and it is a division ring if it is dgnr.

New Prediction Method for Correct Decision Using Authorized Group Members Results

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Abstract:--

Trust Relationship between users play a vital role in making decisions for social network users. Existing trust relations are often extremely sparse, therefore unknown trust relationship attacks increase attention in recent years. We propose a new technique from machine learning to predict Trust relationships in social network by using K-nearest neighbour Algorithm (KNN) and also we extend our work to classify the messages posted by these identified trusted users on Social Network sites as Interesting or not Interesting posts. The classification of messages to identify the usefulness is done by using two attributes Length of message in number of words and Posting frequency in terms of time difference between consecutive messages from the same sender. We use real-world dataset Epinions to evaluate their performance in trust Prediction.

Keywords:--

Trust Relationship, Social Network, Interesting Posts, KNN, Classification

3 – Graphoidal Path Covers

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K.Bala Deepa Arasi, Assistant Professor,PG & Research Department of Mathematics,Thoothukudi , Tamilnadu, India

Abstract:--

The concept of graphoidal cover was introduced by B.D. Acharya and E.SampathKumar. The concept of 2-graphoidal path cover was introduced by K. Nagarajan et.al. The Concept of 3-Graphoidal cover was introduced by T. Gayathri et.al., A 3 – graphoidal path cover of a graph G is a collection of paths in G such that every path has atleast two vertices, every vertex of G is an internal vertex of the at most three paths and every edge of G is in exactly one path. The minimum cardinality of it is a 3 – graphoidal path covering number $\eta_{3a}(G)$. In this paper we find $\eta_{3a}(G)$ for some special graphs.

Keywords:--

Graphoidal cover, Acyclic graphoidal, 2- Graphoidal cover and 3- Graphoidal cover.

Growth and studies of Anilinium dihydrogen phosphate crystals

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U.Rajesh kannan, Department of Physics, Kamaraj College, Tuticorin, Tamilnadu, India

Abstract:--

Nonlinear optical (NLO) materials play a major role in nonlinear optics and in particular they have a great impact on information technology and industrial applications.The understanding of the nonlinear polarization mechanisms and their relations to the structural characteristics of the materials have been considerably improved during the last 10 years. Anilinium dihydrogen phosphate crystal ($C_6H_8N^+.H_2PO_4^-$) was synthesized by taking Aniline 6 m mol, ethanol 20 ml, ortho phosphoric acid 9 m mol, water 10 ml , PH = 4, stirred at room temp for 1 hr in Mr = 191.12 molar ratio. Single crystals were grown by slow evaporation method and the grown crystals were found. The single crystal X-ray diffraction studies show that the grown crystal belongs to triclinic system, Space group P_1, a = 8.8040 (3) Å, b = 10.4220 (4) Å, c = 14.0890 (6) Å, V = 1243.71 (8) Å^3, Anilinium dihydrogen phosphate crystal was synthesized and grown in the form of single crystals by aqueous solution growth method.Structural characterization of the grown crystal was carried out by XRD method. Linear optical parameters such as optical transmittance, absorbance, reflectance, absorption coefficient, extinction coefficient, linear refractive index and optical conductivity of Anilinium dihydrogen phosphate crystal were evaluated by UV-visible spectral method. Other characterization studies like FTIR, FT-Raman, UV analysis, TG/DTA, PL, etc were carried out and the results will be presented in details.

Key words:
NLO; single crystal; solution growth; doping; XRD, FTIR, UV, TG/DTA, PL.

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D2 Analysis for Estimating Genetic Divergence in Sesame Genotypes (*Sesamum indicum* L.)

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Abstract:--

Sesame is an important traditional oilseed crop cultivated throughout India. Genetic divergence was studied based on Mahalanobis D2 statistic and grouping of cluster was done among the 30 genotypes for ten quantitative traits following Tocher's method. The analysis of variance showed significant difference among the genotypes for all the characters studied. The genotypes were categorised into eight clusters based on the genetic distance and mean of different characters. The clustering pattern indicated that there is no association between geographical distribution of genotypes and genetic divergence. The minimum intra-cluster distance (D =5.75) was observed in cluster II and the maximum distance and the maximum inter cluster distance was observed between the clusters III and VIII. Cluster VIII recorded maximum cluster mean for the characters namely plant height at maturity, number of branches, number of capsules per plant, capsule breadth, number of seeds per capsule, 1000 seed weight and seed yield per plant. The characters viz., days to 50% flowering contributed the maximum (39.31%) for the genetic divergence followed by seed yield per plant (20.68%) and 1000 seed weight (15.63%). The genotype VRI 1registered maximum mean among all the quantitative traits followed VRI 1, GT 10 and VRI 2 hold great potential for improving and stabilizing the seed yield.

Keywords:--

sesame, D^2 analysis, Genetic divergence.

Influence of Brand Attitude on Purchase Intention of Modular Kitchen in Chennai City

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Abstract:--

The purpose of current study is to investigate the influence of brand attitude on customers' purchase intention. Population was customers of branded modular kitchen in Chennai city. Using a self-administrated questionnaire, 220 respondents were asked to answer the survey employing convenience-sampling method. The results indicated that advertising on print media and social media have significant impact on brand attitude. Further, brand attitude has a significant influence on purchase intention of consumers.

Keywords:--

Brand Attitude, Print Advertising, Social Media, and Purchase Intention.

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Strong Perfect Domination in some Subdivision Graphs

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Meena.N, P.G. and Research Department of Mathematics, The M.D.T. Hindu College, Tirunelveli, Affiliated to Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli , TamilNadu,India

Abstract:--

Let G be a simple graph. A subset $S \subseteq V(G)$ is called a strong (weak) perfect dominating set of G if $|N_s(u) \cap S| = 1 (|N_w(u) \cap S| = 1$ for every $u \in V(G) - S$ where $N_s(u) = \{v \in V(G)/ \deg v \geq \deg u\}$ $(N_w(u) = \{v \in V(G)/ \deg v \leq \deg u\}$. The minimum cardinality of a strong (weak) perfect dominating set G is called the strong (weak) perfect domination number of G and is denoted by $\gamma_{sp}(G)$ $(\gamma_{wp}(G))$. In this paper strong perfect domination number of some subdivision graphs are determined.

Keywords:--

Dominating set, perfect dominating set, strong dominating set, strong perfect dominating set, strong perfect domination number.

AMS subject classification: 05C69

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Performance Evaluation of Ensemble Classifiers on Benchmark Datasets

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Abstract:--
      In supervised machine learning, highest possible performance is achievable and identifying such a perfect model is a crucial research task. Although a single machine learning algorithm performs well in predicting the target variable, it is not up to the highest possible accuracy that is achievable when used with diverse real data. Hence, the native solution is to come up with ideas to combine the models namely ensemble methods that use multiple supervised machine learning algorithms in order to obtain highest predictive performance than those obtained from any of the contributing algorithms alone. These ensemble methods conceal the disadvantage of those single models and improve the performance to provide the best prediction possible. When the validation process is undertaken, it will describe the quality and characteristics of the ensemble models and predict their performance against real data. In this research work, the performance of the two ensemble classifiers namely Bagging and AdaBoost is experimented and evaluated on various folds of cross validation with different experiments on two different benchmark datasets namely credits and diabetes. The results provide better understanding of the accuracy, reliability and usefulness of the models.

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Antimagic Labeling on Z_p, Z_q

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Abstract:--

Let G = (V, E) be a graph. The Antimagic labeling on Z_p, Z_q is defined on the group of integers modulo p, q where p and q are the vertices and edges in the graph. In Antimagic labeling on Z_p, Z_q, either the weight of all vertices or the weight of all edges in the graph are distinct positive integers. In this paper we introduce the concept of Edge Antimagic Vertex labeling on Z_p, Z_q, Vertex Antimagic Edge labeling on Z_p, Z_q and discuss these labelings for friendship graphs, Complete graphs, Wheel graphs, Stars and Bistars. Also we find the bounds for the weights of vertices as well as the edges in the graph.

Keywords:--

Antimagic, Wheels, Friendship graphs, Bistars.

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Synthesis of Silver Nanoparticles Using Phallusia Arabica and Their Antibacterial Activity against Pathogenic Bacteria

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Dr. R. Jothibai Margret, Associate Professor, Department of Chemistry, Pope's College, Sawyerpuram.

Dr. V.K. Meenakshi, Associate Professor (Retired), Department of Zoology, A.P.C. Mahalaxmi College for women, Thoothukudi.

Abstract:--

Biosynthesis of nanoparticles is a relatively new emerging field of nanotechnology which has economic and eco-friendly benefits over chemical processes of synthesis. In the present work, the ascidian Phallusia arabica ethanol extract was used as a reducing agent for the synthesis of silver nanoparticles (Ag-NPs). Silver nanoparticle was confirmed by the colour change, wave range of UV-Vis Spectroscopy and the shape and size of the NPs were determined by the SEM. The existence of functional groups was identified by using Fourier transform infrared spectroscopy. Synthesized silver nanoparticles were characterized by X-ray diffraction studies and EDAX. The morphology and size of the synthesized particles were studied with atomic force microscope measurements. The synthesized nanoparticles have an effective antibacterial activity against four pathogenic strains Bacillus cereus, Bacillus subtilis, Staphylococcus aureus, Enterococcus faecalis, and Shigella dysentriae.

Keywords:--

Silver nanoparticles, Phallusia arabica, XRD, EDAX, FTIR, SEM, AFM, Antibacterial activity

Implementation of Image Steganography in Qr Code Using Mid-Band DCT

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Abstract:--
    Image steganography is taking a new turn in present day world. Now day's strong technique in computer science and security of the digital content. The use of QR code is increasing day by day and this advance version of 2D bar code proves to provide higher content capacity. The cover image in previous works is used as jpeg or bmp images. These types of images assist to handle greater distortion, providing higher PSNR. In this research paper, I have implemented, image steganography on QR code as cover image. The PSNR has to be maintained so that the message in the QR cod is not lost.

Keywords:--
    Image Steagnography, LSB, QR Code, Image PSNR, MSE, Data Hiding, Bit Sequence Message.

A Study on Investors' Perception towards Mutual Fund

J. Ajitha, PhD Scholar (Commerce), ST.MARY'S College , Thoothukudi

Abstract:--
　　　　Mutual fund have emerged as an important investment alternative to invest in the Capital markets. They provide an opportunity to avail the services of professionals at a very nominal cost, even in the case of small investments. However, there are many mutual funds in Tamil Nadu particularly in Thoothukudi district, they are competing with each other and offering multiple mutual fund products. Knowing perception of mutual fund investors can help these institutions to market their scheme in a better way. In this context, the proposed study attempts to study the awareness of mutual fund, analyze the perception of investors towards mutual fund, study the factors considered by investors and those which ultimately influence them while investing and also identify the threats of the mutual fund which may adversely affect the investors. The study is expected to throw light on the benefit and limitations of investment to potential investors and provide information to financial institutions to improve their financial products and offerings to the public.

Synthesis of Honey Mediated Biogenic Zinc Oxide nanoparticles and Structural Parameters Investigations

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C.Stella Packiam , A.P.C Mahalaxmi College for Women, Thoothukudi, Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu, India

Abstract:--

The advantage of using Honey bee in nanoparticles synthesis is that they are easily available, low cost and safe to handle. The aim of this study was to synthesize and investigate the structural parameters of honey mediated biogenic zinc oxide nanoparticles. The zinc oxide nanoparticles were investigated by Fourier Transform Infrared Spectroscopy (FTIR), X-ray diffraction (XRD) and Transmission Electron Microscope (TEM). We observed that the biogenic honey mediated zinc oxide nanoparticles did not require any external chemicals reagent for stabilization and reduction of nanoparticulate. The FTIR studies showed an absorption peak at 674 cm-1 stretching vibration of Zn-O nanoparticles, which indicated the formation of zinc oxide nanoparticles. By XRD the crystallite size was found to 26.29 nm and the dislocation density was 14.46×10^{-4} (nm)−2. The volume unit cell was determined and the volume was V= 22.8634 (Å3). The lattice constants (a= b = 3.2369 Angstrom and c = 5.2067 Angstrom, c/a = 1.6024). The surface morphology of the ZnO, was characterized by SEM analysis and suggested irregular particle shape of plate like structure. TEM micrographs also confirmed the particle size of the sample was in the nanoscale range. Thus the ZnO nanoparticles synthesized using natural Honey can be used in the high-technology industries in the future.

Keywords:--

Honey bee, zinc oxide nanoparticles, FTIR, XRD, TEM

An eco-friendly synthesis of silver nanoparticles from Jatropha curcas, its characterization and antioxidant studies

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Abstract:--

The purpose of this study is to minimize the negative impacts of synthetic procedures and to develop an environmentally benign procedures for the synthesis of metallic nanoparticles. In this article an eco-friendly synthesis of silver nanoparticles from Jatropha curcas was described. This synthesis was performed using the leaf extract of the plant Jatropha curcas using silver nitrate solution. The synthesized silver nanoparticles was further subjected to various studies like UV-Vis spectroscopy, IR spectra, AFM and antioxidant studies. UV-Vis spectroscopy showed the SPR peaks for AgNPs was at 440nm using Jatropha curcas leaves extract. IR spectral study confirmed the presence of various functional groups in the leaves extract. Surface morphology and surface roughness were studied using atomic force microscopy. Later the antioxidant activity was performed by the phosphomolybdenum method, and the leaf extract of Jatropha curcas was found to possess significant antioxidant activity. Thus this study revealed that biosynthesized silver nanoparticles using Jatropha curcas was found to be very effective as antioxidant agent.

Keywords:--

Jatropha curcas, AgNPs, UV, IR, AFM, Antioxidant

Structural, mechanical, optical and electrical studies of urea sodium fluoride crystals

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Abstract:--

Solution method was adopted to grow the single crystals of urea sodium fluoride (USF) at room temperature (30 oC). The grown crystal of USF is observed to be were transparent, non-hygroscopic and colourless. Single crystal XRD studies were carried out to find the lattice parameters of the sample. Second order and third order NLO parameters were found by Kurtz-Perry method and Z-scan technique respectively. The mechanical parameters were determined for the grown crystal of USF by Vickers hardness method at different applied loads. LDT value of USF crystal was found using a Nd: YAG laser. Dielectric studies of the grown crystal of USF were carried out to find the dielectric constant, dielectric loss and AC conductivity to understand the electrical processes that are taking place in the sample.

Key words:

NLO; single crystal; solution growth; SHG; Z-scan; microhardness; LDT; dielectirics

Structural, Morphological and Optical Studies of Copper Iodide and Copper Oxide Nanocomposites

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Dr. vettumperumal, Assistant Professor, Department of physics, VV College of Engineering, Tisayanvilai

Dr.S.Kalyanaraman, Associate Professor& Principal(Rtd), Sri Paramakalyani college, Alwarkurichi

Abstract:--
      In this work, CuI nanoparticle was prepared by conventional method. The synthesized nanoparticle was annealed at four different temperatures. It was observed from XRD studies the nanoparticle dried at 60°c is a pure phase of copper iodide. The prepared nanoparticle annealed at different temperature changes phase from copper iodide to copper oxide. Obtained nano composites of CuI/CuO was studied. Optical and morphological characters were studied. It was observed from SEM, the triangle shaped CuI nuclei gets agglomerated for prepared nanoparticles annealed at high temperatures than nanoparticle prepared at low temperature. The particle size gets decreased for high annealing temperatures.

On R$^{\wedge *}$-Closed Sets in Topological Spaces

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S.Jackson, Assistant Professor ,PG & Research Department of MathematicsV.O.Chidambaram College, Thoothukudi, Tamil Nadu.

Abstract:--

The aim of this paper is to be introduced a new class of closed sets namely R$^{\wedge *}$-closed set by using g$^{\wedge}$-closure and R*-open set. A subset A of a topological space X is said to be g$^{\wedge}$-closed if cl(A)⊆U whenever A⊆U and U is semi-open. The smallest g$^{\wedge}$-closed containing A is said to be g$^{\wedge}$-closure of A and is denoted by g$^{\wedge}$-cl(A). A subset A of a topological space X is said to be R*-closed if rcl(A)⊆U whenever A⊆U and U is regular semi-open. The complement of R*-closed set is said to be R*-open set. Also we investigated and studied their properties.

Keywords:--

R$^{\wedge *}$-closed set, g$^{\wedge}$-closed, g$^{\wedge}$-closure set, R*-closed set, R*-open set, R$^{\wedge *}$-open set.

On Generalized Semi b#-Closed sets in Topological spaces

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S.Jackson, Assistant Professor,PG & Research Department of Mathematics, V.O.Chidambaram College, Thoothukudi, Tamil Nadu.

Abstract:--

A subset A of a topological space X is said to $b^{\#}$-closed if $A = cl(int(A)) \cap int(cl(A))$. The $b^{\#}$ Closure of A is the intersection of all $b^{\#}$-closed sets containing A and is denoted by $b^{\#}Cl(A)$. The main objective of this paper, is to be introduced a new class of closed sets namely generalized semi $b^{\#}$-closed set (briefly $gsb^{\#}$-closed) in topological spaces by using $b^{\#}$ Closure and semi open. Also, we characterized their properties and we studied the relationship between the $gsb^{\#}$-closed set with the existing class of stronger and weaker form of closed sets.

keywords:--

$b^{\#}$-closed, $b^{\#}$-closure, $gb^{\#}$-closed, $gsb^{\#}$-closed, $gsb^{\#}$-open, Semi open.

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Wireless Sensor Networks Architecture & Security: A Survey

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S. Maria Packiam, Asst. Professor, Department of Information Technology, Bishop Caldwell College, Manonmaniam Sundaranar University.

Abstract:--
    Wireless Sensor Networks (WSN) are an emerging technology in recent years, A wireless network is a network that uses wireless data connections between network nodes. Wireless sensor network consists of small nodes with sensing, computation and wireless communication capability. In a WSN the architecture plays an important role. The design of WSN depends upon the application and its factors such as the environment, application's objectives, cost and system constrains. As the WSN continues to grow in many applications that deals with sensitive data and operates in hostile unattended environments in recent years, it is very must to focus in the security of the network. A wireless sensor network has important applications such as remote environmental and tracking. The security of the network is designed carefully from the beginning of the system design. However, due to unpredictable environmental changes and system constrains, the security in wireless sensor network faces many challenges than the traditional networks. This paper gives a survey of the types of WSN and the comparison between the types. Also the paper gives a survey on the obstacles and requirements in the sensor security.

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Effect of Domestic Sewage on Marine Seaweeds

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Abstract:--
Untreated domestic sewage, industrial effluents are discharged into the sea. All these heavily pollute seaweeds. Domestic sewage contains a wide variety of dissolved and suspended impurities and it affects the growth of seaweeds. In the present investigation, effect of different concentration of domestic sewage [1%, 5% and 10%] was studied on the daily growth rate (DGR), total chlorophyll, carotenoids, sugar, protein and phycocolloids of Ulva lactuca, Padina tetrastromatica and Gracilaria corticata cultured in the laboratory. These cultures were incubated at 28 2 0C under 16:8 LD cycle of 800 lux light intensity for a period of 21 days. Ulva lactuca and Gracilaria corticata responded well to sewage in all concentration by exhibiting enhanced DGR and other biochemicals. In Padina, at 1% concentrations of domestic sewage, the DGR and photosynthetic pigments were exceeded over the control.

Keywords:--
Domestic sewage, Ulva lactuca, pigments, biochemicals

On Quasi-ideals and K-Regular in Near Subtraction Semigroups

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Abstract:--
　　In this paper, with a new idea, we define quasi-ideal and investigate some of its properties. We characterize quasi-ideal by subalgebra of near subtraction semigroup, K-regular by quasi-ideal. A characterization of quasi-ideals of near subtraction semigroup is given. In this paper, we shall introduce K-regular near subtraction semigroups and obtain equivalent conditions for K-regular near subtraction semigroups using quasi-ideals. This concept motivates the study of different kinds of new ideals in algebraic theory especially ideals in subtraction bialgebra and Fuzzy algebra.

Keywords:--
　　Quasi-ideal, s-near subtraction semigroup, property (α), K-regular.

A comparative study of some distance measure for clustering

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Abstract:--

The distance measure plays an important role in clustering. But choosing the correct distance measure itself is a challenging problem. In this paper, are compare different distance measures and their effect on different clustering the objects.

Keywords:--

Clusting, Distance, Measure, Objects

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Synthesis and characterisation of interpenetrating Polymer networks using pongamia glabra seed oil

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Abstract:--
Vegetable oil, which can be derived from plant sources, are found abundance in all parts of the world, which makes it possible for an ideal source of chemical feedstock that can replace petroleum derived chemicals. Polyurethane prepolymer was synthesized from acrylatedepoxidized resin of pongamiaglabra seed oil with toluene 2,4diisocyanate was confirmed by FTIR and NMR spectroscopy. The synthesized polyurethane prepolymer was swelled in methylmethacrylate and subsequently polymerized by radical polymerization initiated with benzoylperoxide in the presence of crosslinking agent triethyleneglycoldimethacrylate. To establish the chemistry of synthesized IPNs were analysed by FT-IR spectrum. All these IPNs films were characterised by resistance to chemical reagents, swelling behavior, mechanical studies such as tensile strength, Young's modulus, elongation at break (%). Thermal behaviours of the IPNs were studied by thermo gravimetric analysis (TGA), differential thermal analysis (DTA) and differential scanning calorimetry (DSC). Biodegradation was tested by soil burial, antibacterial activity and SEM. The loss of tensile strength by soil burial, zone of inhibition by antimicrobial activity and changes in the surface morphology of the soil buried samples indicated the biodegradability of the IPNs.

keywords :--
crosslinkertriethyleneglycoldimethacrylate,Interpenetrating polymer networks (IPNs), methylmethacrylate, polyurethane prepolymer,Pongamiaglabraseed oil.

Remote Sensng Image Fusion Method Based On Qim and DCT

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S. Rajesh, Professor, Department of Information Technology, Mepco Schlenk Engineering College, Sivakasi.

Abstract:--
Digital image Fusion is the process of combining two or more images of same scene into single image which provide high spectral and spatial information. However, the most existing fusion algorithms for remote sensing images implement a unified processing over the whole part of the image and thereby leaving certain important needs out of consideration. The main aim of our proposed model is to fuse the images with minimum errors. In this paper, a new remote sensing fusion algorithm based on Quantization Index Modulation (QIM) and Discrete Contourlet Transform (DCT) is proposed for fusing two registered Multispectral (MS) and panchromatic (PAN) image of the same scene. Wavelet decomposition is performed using Quantization Index Modulation and Discrete Contourlet Transform). A different wavelet decomposition approaches have been proposed in recent years includes DTCWT (Dual Tree Complex Wavelet Transform), NSCT, and NSST, but those techniques are taken high computational cost. But the DCT and QIM is the most effective approach which decompose the image into levels. The high and low frequency sub-images are obtained by wavelet decomposition. The high-frequency sub-images are the detail information of source images like lines, region boundaries and edges. Here we put efforts on fusing the high and low frequency sub-images separately. In order to fuse the image effectively, we have selected best coefficients using Euclidean Distance formula. Thus, the coefficient with minimal distance is attaining the high priority than the other coefficients. Final fused image is reconstructed by inverse DCT. The experimental results illustrate that the proposed fusion algorithm outperforms than other traditional fusion algorithms in whole such as intensity–hue–saturation , DWT and PCA.

Application on bĝ-Closed Sets in Topological Spaces

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Abstract:--

In 1970, Levine defined generalized closed sets. In 2013, R.Subasree and M.Maria Singam introduced a new set namely bĝ-closed set which is defined as $bcl(A) \subseteq U$ whenever $A \subseteq U$ and U is ĝ-open in X. Later, they have established functions such as bĝ-continuous function that is the inverse image of every closed set is bĝ-closed in X; bĝ-irresolute function if the inverse image every bĝ-closed set is bĝ-closed; bĝ-open map means the image of every open set is bĝ-open and bĝ-closed map means the image of every closed set is bĝ-closed. In 1973, Das defined semi-interior point and semi-limit point of a subset. Further, the semi-derived set of a subset of a topological space was defined and studied by him. Following this concept, we define bĝ-limit point, bĝ-derived set, bĝ-border, bĝ-frontier and bĝ-exterior of a subset of topological spaces using the concept of bĝ-closed sets which is defined as and we studied some of its properties.

Keywords:--

bĝ-limit point, bĝ-derived set, bĝ-border, bĝ-frontier, bĝ-exterior, bĝ-closed set.

Effect of Soap Effluent on the Geotechnical Characteristics of Red Soil

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Abstract:--
      Due to industrialization the amount of effluent discharged in environment has increased rapidly with time. The safe disposal of these effluent is a major issue that is been faced all over the world. One of the major predicaments faced by geotechnical engineers around the world is land contamination. The effluent when it comes in contact with soil causes changes the engineering behaviour of the soil which may affect the stability of the foundation and pavements. In some cases the changes caused by these effluents can either improve or degrade the engineering behaviour of soil. If there is an improvement in engineering behaviour of soil, there is a value addition to the industrial wastes serving the three benefits of safe disposal of effluent, using as a stabilizer and return of income on it. If there is degradation of engineering behaviour of soil then solution for decontamination is to be obtained. Hence an attempt is made in this present study that the effect of certain Industrial effluents such as Soap effluent, on the plasticity, compaction characteristic and shear strength parameters of red soil. Effluents were added in the percentage of 5%, 10%, 15%, 20% and 25% by the dry weight of the soil for a curing period of 7, 14, 28 and 60 days. Results of the study shows that Soap Effluent increases the maximum dry density with decrease in optimum moisture content, lowers the liquid limit, plastic limit and higher the shrinkage limit. It can be inferred that the increase in percentage of soap effluent with increase in curing period causes the marginal variations in geotechnical properties of red soil. When soil interacts with industrial effluents, the interaction changes the pore fluid chemistry and subsequently the thickness of diffused double layer. These changes are likely to be reflected by variation in engineering properties.

Keywords:--
      Degradation, Diffused double layer, Pore fluid chemistry, Soap effluent.

Shear Strength and Dilatancy Behaviour of Steel Slag

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Abstract:--
    A series of direct shear tests was conducted at normal stress of 50,100, 200, 300 and 400 kPa in order to study the peak friction angle, dilation angle and critical state friction angle of the angular steel slag. The different relative densities at which tests were conducted are 20%, 50%, and 80% respectively, with corresponding unit weights are 17.75 kN/m3, 18.15 kN/m3and 18.57 kN/m3respectively. Most of the direct shear tests were conducted to shear strain in excess of 40% to achieve the critical state. All the tests are conducted at constant strain of 0.05 mm/min. The stress-strain response was observed and recorded, and the shear strength and dilatancy parameters were obtained for each relative density and normal stresses. Also in the present work, a correlation between peak friction angle, dilatancy angle and critical state friction angle was obtained for steel slag. It was observed that as the normal stress increases, both frictional angle and dilatancy angle was found to decrease. Also as noted increase in density increases friction and dilatancy angle. The present data were also compared with those of established correlations by Bolton (1986) and Kumar et.al (2007) and found to compare well.

Keywords:--
    Strength, Dilatancy, Relative density, Peak friction angle, Critical state, Correlations, Steel Slag.

Near Mean Cordial Labeling of Cycle Related Graphs

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Abstract:--

Let $G = (V,E)$ be a simple graph. A ***Near Mean Cordial Labeling*** of G is a function in $f :$ $V(G) \rightarrow \{1, 2, 3, \ldots, p-1, p+1\}$ such that the induced map $f*$ defined by

$$f*(uv) = \begin{cases} 1 & if\big(f(u) + f(v)\big) \equiv 0 \ (mod 2) \\ 0 & else \end{cases}$$

and it satisfies the condition $|e_f(0) - e_f(1)| \leq 1$, where $e_f(0)$ and $e_f(1)$ represent the number of edges labeled with 0 and 1 respectively. A graph is called a ***Near Mean Cordial Graph*** if it admits a near mean cordial labeling.

In this paper, It is to be proved that Double Fan (DF_n) , Triangular snake(TS_n) and Jelly fish$(J(m,n))$ are **Near Mean Cordial** graphs.

AMS Mathematics subject classification 2010:05C78.

Keywords:--

Cordial labeling, Near Mean Cordial Labeling and Near Mean Cordial Graph.

The abiotic determinants in a solar salt pan of Kanyakumari District - A Study

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M.Mathevan Pillai, P.G and Research Centre, Department of Botany,S.T.Hindu College,Nagercoil,Tamil Nadu,India.

Abstract:--
     Sodium chloride or common salt is an integral part of our daily diet. Salt is produced mainly by solar evaporation. Sea brine, subsoil brine and underground brine are the major sources of salt. In the solar salt pan of Puthalam, subsoil brine is used to manufacture salt. The major abiotic determinants that affect the salt production are temperature, salinity, pH ,dissolved oxygen, alkalinity, hardness etc. These physico-chemical parameters play an important role in improving the rate of salt production. They vary with the different environmental conditions. Temperature, salinity and dissolved oxygen are highly related. When temperature and salinity increased, dissolved oxygen decreased. pH increased from source to reservoir and decreased from condenser to crystalliser. Hardness and alkalinity increased from reservoir to condenser. The abiotic components exhibited seasonal variation also.

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HSV Color Histogram based Land Cover Classification of Remotely Sensed Data using different Classifiers

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Abstract:--

Land cover classification of remotely sensed images is the basis for many environmental and socio economic applications. Feature extraction plays a vital role in multispectral remote sensing image classification before classifying the image. In this paper, color features are extracted using HSV color histogram model to classify the land cover. The extracted features are trained and tested by K Nearest neighbor, Decision Tree, RUSBoost, Random Forest, Support vector machine and Naive Bayes classifiers. The performance of the classifiers is compared based on several metrics such as accuracy, sensitivity, specificity, f-score and kappa coefficient. An IRS LISS IV orthorectified dataset is chosen as the input image for this experiment. It is observed that the random forest classifier outperformed when compared to other classifiers.

Novel Green Synthesis of Single Phase Iron Oxide Nanoparticles Using Apis Mellifera

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S. M. Abdul Kader, Department of Physics, Sadakathullah Appa College, Tirunelveli
B. Sundarakannan, Department of Physics, Manonmaniam Sundaranar University, Tirunelveli

Abstract:--
Bio-directed synthesis of nanoparticles is of interest to biologists, chemists and materials scientists alike, especially in light of efforts to find greener methods of inorganic material synthesis. Though the biosynthesis of iron oxide nanoparticles has been carried out by several groups of scientists using plants, fungi and bacteria, so far there is no report on the use of Apis Mellifera (natural honey)– mankind's only sweetener for centuries – for the synthesis of nanoparticles. Here, it is a report on a greener synthesis of iron oxide nanoparticles using Apis Mellifera as reducing and capping agents. The obtained nanoparticles were characterized by XRD and FTIR. Through, the XRD pattern single phase of α-Fe2O3 nanoparticles was confirmed and FTIR spectra confirmed the Fe-o presence.

Keywords:--
Novel Green Synthesis, Apis Mellifera, Iron oxide nanoparticles, FTIR

A Comparative Study of Some Metaheuristic Algorithms

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Abstract:--
        In order to solve the issues in the conventional algorithms, many nature inspired algorithms are identified. The advantages of these algorithms are they perform iterative searches to provide an efficient performences. In this paper, we analayse four metaheubistic   algorithms namely-Firefly, Bat, Ant Colony and Cuckoo search. The analayes is presented based on its area of application and its characteristics.

Key words:--
        Firefly, Bat, Antcolony, Cuckoo, Metaheuristic, Search

Interval valued Fuzzy ideals in Boolean like Semi Rings

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Abstract:--
    In this paper we introduce the notion of an interval valued fuzzy ideals in Boolean like semi rings and also characterize some of their properties and illustrate with examples of interval valued fuzzy ideals in Boolean like semi rings. Let R be an Boolean like semi- ring and $\tilde{\mu}$ be an interval valued fuzzy subset of R. Then $\tilde{\mu}$ is said to be an interval valued fuzzy ideals of R, if i) $\tilde{\mu}(x-y) \geq \min^{i}\{\tilde{\mu}(x), \tilde{\mu}(y)\}$ ii) $\tilde{\mu}(ra) \geq \tilde{\mu}(a)$ iii) $\tilde{\mu}((r+a)s+rs) \geq \tilde{\mu}(a)$.

Keywords:--
    Boolean like semi ring, fuzzy ideal, interval valued fuzzy ideal.

Analysis of Information Gain Ranking Feature Selection Algorithm Using Uci Machine Learning Datasets

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Abstract:--
     Data mining is a process to extract usable data from a larger set . Feature selection is one of the important pre-processing steps in data mining. Feature selection (FS) is a process to select features which are more informative. This paper analyses five feature selection algorithms such as Information Gain, Correlation Attribute , Relief-F, One-R., Symmetrical Uncertainty using five UCI machine Learning data sets. The classification performance of the reduced data is measured by WEKA classifiers JRIP and J48. Based on the classification accuracy we propose Information Gain feature selection algorithm.

Index Terms-
     Data Mining, Feature Selection, Classifiers J48, JRIP.

Enzymatic Treatment of Tannery Effluents Using Tanin Acyl Hydrolase and Mangifera Indica Biomass

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Abstract:--
      Tannery Effluents are growing to be a problematic class of pollutants to the environment. The disposal of tannery effluents in water resources has bad aesthetic health effects and hence there is a need to remove them from the pollution causing agents .The key concern in the treatment of waste water is the release of tannery effluents and their metabolites into the environment, such as mutagens and Carcinogens. Being among the most demanding environmental tasks of the modern day, the increasing amount of toxic industrial waste has led to the development of various methods for its eradication and removal from waste water. Unfertizable fruting buds of mango plant Mangifera Indica, an agro waste is used as a biomass in this study. Mango Biomass is one of the cost efficient biomass and it is widely available in the southern parts of the state. The required enzyme is extracted from the biomass and further used to degrade the effluents in the tannery waste. This project involves making of an Adsorption column which could house the extracted biomass, enzyme and kaolin which would further degrade and reduce the contamination of the tannery waste. To ensure the best results there would be a serious of treatments carried out such as Chemical, biological and microbial treatments. The effluent would be characterized before and after the treatments to ensure the differences and would be further used to carry out cultivation or vegetative irrigation.

Keywords:--
      Tannery effluents; Biomass; Enzyme; Mangifera Indica.

Fuzzy pre Convergence of Fuzzy Sequence

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Abstract:--

The convergence of sequences plays a vital role in the study of metric spaces. The continuity of a functions and the closedness of a set are studied using convergent sequences. Later on the pre convergence of sequence is introduced and studied. Recently Fuzzy sequences and Fuzzy convergences are studied in metric space. In this paper we introduce Fuzzy pre convergence of Fuzzy sequences in a metric space. Also some properties are studied.

Keywords:--

Fuzzy sequences, Fuzzy convergence, Fuzzy pre convergence.

Some New b*ĝ-Continuous Functions in Topological Spaces

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V.Maheswari, Assistant Professor, PG & Research Department of Mathematics, A.P.C. Mahalaxmi College for Women, Thoothukudi, TN, India.

Abstract:--

In 1960, N.Levine introduced the strong continuity in topological spaces. RC Jain established the concept of totally continuous function and slightly continuous functions in topological spaces. In 2016, K.Bala Deepa Arasi and G.Subasini introduced the b*ĝ-closed sets and studied their properties in topological spaces. A subset A is called so if b*Cl(A) ⊆U whenever A⊆U and U is ĝ-open in X. Later, in 2017, we defined a new version of maps namely b*ĝ-continuous function that is the inverse image of every closed set is b*ĝ-closed set; b*ĝ-irresolute function which means the inverse image of every b*ĝ-closed set is b*ĝ-closed; b*ĝ-open map if the image of every open set is b*ĝ-open and b*ĝ-closed map if the image of every closed set is b*ĝ-closed and contra b*ĝ-continuous functions as the inverse image of every open set is b*ĝ-closed in topological spaces. Also, we proved some properties of these functions and studied their relationships with other existing functions. Continuing this work we introduce a new functions namely strongly b*ĝ-continuous, perfectly b*ĝ-continuous, slightly b*ĝ-continuous and totally b*ĝ-continuous functions in topological spaces and we investigate some of its properties. Additionally, we relate and compare these functions with some other known existing functions in topological spaces

A new approach to extract patterns in text mining

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V.Priya Dharshini, Department of Computer Science, A.P.C.Mahalaxmi College for Women –Thoothukudi

Abstract:--
  Due to the rapid growth in World Wide Web and data availability, text mining has become one of the most important fields in data mining. Text mining refers to the technique which is useful to find the information from a huge volume of digital documents. Many existing text mining methods follow the term based approaches. Pattern evolution methods are employed to perform the same concept of tasks.This paper presents a new approach for extraction of the pattern frames in text mining.

Keywords:--
  Text Mining, Pattern Frames, Information

Fuzzy β Convergence of Fuzzy Generalized Filters

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Abstract:--

      In a topological space, the continuity of a function and closure of a set can be characterized by filters. Later on Mathematicians introduced generalized filters in generalized topological space. Recently Fuzzy generalized filter and its Fuzzy convergence are introduced. The convergence of Fuzzy filters plays an important role in topological spaces. The convergence of Fuzzy Generalized filters plays an important role in generalized topological spaces. In this paper we introduce Fuzzy β convergence of Fuzzy generalized filters. Also we study some properties.

Keywords:--

      Generalized Filter, Fuzzy convergence, Fuzzy β convergence.

On intuitionistic fuzzy k – bi – ideals of Boolean like semi rings

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Abstract:--

Boolean like semi rings were introduced by K.Venkatesawarlu, B.V.N.Murthy and N.Amarnath during 2011. The idea of intuitionistic fuzzy set was introduced by Atanassov. In this paper we introduce the concept of intuitionistic fuzzy k – bi – ideals in Boolean like semi rings. An intuitionistic fuzzy bi – ideal $A = (\mu_A, \gamma_A)$ of R is called an intuitionistic fuzzy k – bi – ideal of R if for all $x, y \in R, i)$ $\mu_A(x) \geq \wedge\{\vee\{\mu_A(x + y), \mu_A(y + x)\}, \mu_A(y)\}$ $ii)$ $\gamma_A(x) \leq \vee\{\wedge\{\gamma_A(x + y), \gamma_A(y + x)\}, \gamma_A(y)\}$. We investigate some of its properties.

Keywords:--

Boolean like semi ring, IFS, intuitionistic fuzzy bi –ideal, intuitionistic fuzzy k- bi – ideal.

Application on sbĝ-Closed Set in Topological Spaces

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Abstract:--

In 1963, Levine introduced the concept of semi-open sets in topological spaces. Biswas defined semi-closed sets in 1970. Crossley and Hildebrand defined semi-closure of sets and irresolute functions in 1971. In 1970, Levine defined generalized closed sets. Das defined semi-interior point and semi-limit point of a subset. The semi-derived set of a subset of a topological space was also defined and studied by him in 1973. Following him, now we define sbĝ-limit point, sbĝ-derived set, sbĝ-border, sbĝ-frontier and sbĝ-exterior of a subset of a topological spaces using the concept of sbĝ-closed sets. A subset A of a topological space X is said to be sbĝ-closed set if $scl(A) \subseteq U$ whenever $A \subseteq U$ and U is bĝ-open in X. Also, we studied some of its properties.

Keywords:--

sbĝ-limit point, sbĝ-derived set, sbĝ-border, sbĝ-frontier, sbĝ-exterior, sbĝ-closed set.

Phishing Attacks and Related Techniques: A Survey

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Abstract:--
Phishing is a kind of cyber attack in which perpetrators use spoofed emails and fraudulent websites to lure unsuspecting online users into giving up personal information. Phishing is a fraudulent trick of stealing victim's personal information by sending messages through SMS, e-mails and social networks via socially engineered messages. Over the past decades, online identity fraud has transformed from being a small scale attack to huge spread syndicated crime as identified in e-mails. Phishing is a cybercrime in which an object is somebody acting like a legitimate organization to bait people into giving delicate information. Phishing is the attempt to get sensitive information such as usernames, passwords, and credit card details, often for malicious reasons. In this survey, we examined phishing attacks and techniques.

Keywords:--
Phishing, cybercrime, Uniform Resource Locator, websites, data

$\rho - T_0$ AND $\rho - T_1$ SPACES IN TOPOLOGICAL SPACES

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Abstract:--

A subset A of a space (X,τ) is said to be ρ-closed if $pcl(A) \subseteq Int(U)$ whenever $A \subseteq U$ and U is $\tilde{g} - open$ in (X,τ). The complement of ρ-closed set is ρ-open set. A function $f:(X,\tau) \rightarrow (Y,\sigma)$ is said to be ρ-continuous if $f^{-1}(V)$ is ρ-closed in (X,τ) for every closed set V in (Y,σ). A function $f:(X,\tau) \rightarrow (Y,\sigma)$ is said to be ρ-irresolute if $f^{-1}(V)$ is ρ-closed in (X,τ) for every ρ-closed set V in (Y,σ). In this paper, we introduce two new topological spaces namely $\rho - T_0$ and $\rho - T_1$ spaces via ρ-open set. Also we characterize their properties.

Keywords:--

ρ-closed set, ρ-open set, ρ-T_0 space, ρ-T_1 space, ρ-D set, ρ-symmetric and ρ-kernel.

Interval valued anti fuzzy ideals of Boolean like semi rings

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Abstract:--

The fundamental concept of fuzzy set was introduced by Zadeh in 1965. Again he introduced the notion of interval valued fuzzy subsets in 1975 where the values of the membership functions are closed intervals of numbers instead of a single value. In this paper, we introduce the notion of interval valued anti fuzzy ideals of Boolean like semi rings. Let R be a Boolean like Semi rings. An interval valued(i – v) fuzzy subset $\tilde{\mu}$ in a Boolean like semi ring R is called an i – v anti fuzzy ideal of M if i)$\tilde{\mu}$(x-y) $\leq$ max^i{$\tilde{\mu}$(x), $\tilde{\mu}$(y)} ii) $\tilde{\mu}$(ra) $\leq$ $\tilde{\mu}$(a) iii) $\tilde{\mu}$((r+a)s+rs) $\leq$ $\tilde{\mu}$(a).

We also investigate some of its properties and illustrate with examples of interval valued anti fuzzy ideals of Boolean like semi rings.

Isolation and study of soil microbes

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Abstract:--

Soil provides substratum for plants and animal life, it is a favourable habitat for various microorganisms the production of the crops also depends on the quality of the soil. Soil and microbes are interdependent microbes add nutrients to the soil. So the present study was undertaken to isolate and identify certain microbes from the soil and to study their characterization.

Keywords:

soil, microbes

A Complete Survey on Technological Challenges of Iot in Security and Privacy

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Abstract:--
Internet of Things is connecting all the gadgets over the internet are collecting and share the information with the centralized computing machine, which it simplifies the forecast analysis and intelligent prediction of challenges. The technological challenges of IoT is is more probability of security and privacy issues, zero-entropy systems, scalability, gadgets communication and integration of components. In the first part of this paper, a brief discussion on the technological challenges of IoT is presented. Moreover, all the issues of security and privacy of IoT also discussed in this paper. Finally, future work directions have been identified for the mitigating the issues of security and privacy of IoT.

Keywords:--
Internet of Things, Security, Privacy

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Green Marketing Practices In Thoothukudi a Source for Sustainable Development – An Industrial Perspective

Maria Celestina Ralpha .R, Ph.D Research Scholar, St. Mary's College, Thoothukudi.

Abstract:--

Green marketing is a vital constituent of the holistic marketing concept. It is particularly applicable to those businesses that are directly dependent on the physical environment. Changes in the physical environment may pose a threat to the consumers and industries. Consequently a new type of marketing practice came into existence known as Green Marketing which would cause less damage to the environment. Thus green marketing plays an important role to promote and reinforce the idea of environmental protection and sustainable development both in the minds of the customer and the manufacturers. This has become the new mantra for marketers to satisfy the needs of consumers and earn better profits. Green marketing is the process of developing products and services and promoting them to satisfy the customers who prefer products of good quality, performance and convenience at affordable cost, which at the same time do not have a detrimental impact on the environment. It includes a broad range of activities like product modification, changing the production process, modified advertising, and change in packaging, aimed at reducing the detrimental impact of products and their consumption and disposal on the environment. Marketers are taking the cue and are going green. Thus there is growing interest among the consumers all over the world regarding protection of environment in which they live. The present paper examines the awareness of Green Marketing practices among the industries in Thoothukudi, for the purpose of which industries were randomly selected and surveyed. This paper attempts to capture the initiatives taken by the industries of Thoothukudi, evaluates the challenges and strategies faced by them and their concern for green marketing to tackle social and environmental problem using innovative solutions

Keywords:--

Environmental protection, Green Marketing, Sustainable Development.

Corrosion Inhibition of Mild Steel in Acid Medium Using Talinum Fruticosum as Eco-Friendly Inhibitor

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Deeparani. P, Assistant Professor, Research Department of Chemistry, Aditanar College of Arts and Science, Affiliated to Manonmaniam Sundaranar University, Tiruchendur, Tamilnadu, India.

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Abstract:--

The inhibition effect of *Talinum fruticosum* extract (TFL) on corrosion of mild steel in 1N HCl was investigated through mass loss measurements with various time and temperature and electrochemical techniques such as Potentiodynamic polarization, Electrochemical Impedance Spectroscopy (EIS) measurements. In this investigation the percentage of inhibition efficiency is increased with increase of inhibitor concentration. The maximum of 83% of inhibition efficiency is achieved even after 360 hrs exposure time. In temperature studies, the observed results reflect that the percentage of inhibition efficiency is increased with increase of temperature and it suggests that the mechanism follows chemical adsorption. Both kinetic as well as thermodynamic parameters are calculated and discussed in detail. In electrochemical studies, Tafel plot shows, the corrosion current density (I_{corr}) values decreased with increase of inhibitor concentration. The inhibition efficiency of TFL extract attained a maximum value of 81% at 1000 ppm of inhibitor concentration. The value of charge transfer resistance (R_{ct}) increased with increase in the inhibitor concentration. The values of double layer capacitance (C_{dl}) tend to decreased and the inhibition efficiency attained maximum of 85% with rise in inhibitor concentration. These results also in good agreement with those observed from the mass loss data. The thin film formation on the metal surface may also be confirmed by FT-IR, EDX spectral studies and the morphology of the specimen was analysed by SEM image.

A Cloud-based Framework for Personalized Mobile Learning Content Management System (LCMS)

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Abstract:--
    Mobile learning content the proliferation of Internet-capable mobile handheld devices and the availability of wireless broadband networks, mobile learning is increasingly adopted to deliver learning content anywhere and anytime to mobile users. Offering compelling mobile learning solutions faces several challenges. These challenges are mainly the adaptation of the learning material to the profile and preferences of the mobile user and the support of multiple devices. Other concerns include the storage, retrieval, and processing of learning content outside of mobile devices. Furthermore, building rich learning management systems requires the integration of learning content from third party providers. This paper describes our proposed cloud-based framework for delivering adaptive mobile learning services. The paper explains the benefits and requirements of cloud-based solutions for educational organizations, and describes the components of the proposed framework together with the process of integrating learning objects imported from third-party providers with in-house learning objects of the educational organization.

Automation of Battery Testing Process Using Programmable Logic Controller

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D.Najumnissa, Professor, Department of Electronics and Instrumentation, B.S.A.Crescent Institute of Science and Technology

Abstract:--
A battery testing process involves checking the voltage across the battery terminals. If the battery voltage is less than the desired value (1.600V) it should be ejected from the process, otherwise it can be forwarded for packing. Batteries are found defective if they don't meet parameters such as Cut-off Voltage. Such batteries are called Low-Volt batteries. Even after the detection of a defective battery, if it is not ejected from the process, due to improper functioning of solenoid valve. Conventional controllers used to monitor the testing process were not very accurate. PLC was preferred to conventional controllers for its speed of operation, error free testing, easy maintenance, reliability, compactness, reduced cost, and high flexibility in programming.

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CFD analysis of biomass gasification with air as medium

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Abstract:--
        The biomass is one of the sources of energy increasing globally due to environmental pollution and the depletion of fossil fuels. Due to stringent policy to reduce emission, biomass will play a key role across the world as a source of green energy. Gasification of biomass not only yields substantial amounts of hydrogen but also cleans the wastes which are produced from various sources. Gasification is a thermochemical technique which requires a medium steam or air for conversion of biomass into useful products. Gasification is efficient only if it outputs usable amount of useful gases. The implementation of gasification technology requires more theoretical and experimental studies. Several models were proposed to explain the geometrical parameters and the optimization of the gasification process. Hence, the paper presents the numerical simulation of the gasifier using the species transport model in Computational fluid dynamics (CFD) with rice husk. CFD is a well-known aiding tool to characterize the conversion process, optimize the design, visualize the flow fields in the reacting flow environment, and to improve the operating efficiency. Here CFD analysis is carried out for different optimal temperature (1023K, 1073K, 1123K) with air as the medium inlet to the reactor. It is also found that CFD prediction with the advanced kinetic scheme is better when compared to other processes. With the results obtained from the CFD models, a parametric study of H_2, CH_4, CO and CO_2 are calculated at different temperatures from the results obtained from the counterplot of CFD model.

Storing and Preserving Resource Techniques in Energy-Exhaustion Mode, a Real-Time Controller for Plug-in Electric Vehicles of Hybrid Model

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Abstract:--

The resource management (RM) of plug-in electric vehicles of hybrid model (EVHM) is commonly divided into two modes: Energy-exhaustion mode and Energy-Preserving mode. This paper presents the minimal adaption law for any type of adaptive resource consumption optimization strategy (RCOS) in Energy-exhaustion mode for plug-in EVHMs. To present the optimal law, a particular adaptive RCOS is selected, known as SAPRT. SAPRT has previously been introduced for series and parallel EVHM in Energy-Preserving mode. Here, by introducing the optimal adaption law in Energy-exhaustion mode, SAPRT strategy is expanded to Energy-exhaustion mode for plug-in EVHMs.

Index Terms

Resource Management, Electric Vehicle, Hybrid Model, Optimized Fuel Control, RCOS, Energy-Exhaustion, Plug-in EVHM

Interval Valued C-Prime Fuzzy Bi-Ideals of Γ-Near-Rings

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Abstract:--

A fuzzy set in a set M is a function μ : M→[0,1]. A fuzzy set in M is called a fuzzy bi-ideal of M if (i) $\mu(x - y) \geq min\{\mu(x), \mu(y)\}$ for all $x, y \in$ M. (ii) $\mu(x\alpha y\beta z) \geq min\{\mu(x), \mu(z)\}$ for all $x, y, z \in$ M and $\alpha, \beta \in \Gamma$. A fuzzy bi-ideal μ of M is called c-prime if for all $x, y \in M, \gamma \in \Gamma$, $\mu(x\gamma y) \leq max\{\mu(x), \mu(y)\}$. An interval valued fuzzy subset $\tilde{\mu}$ of M is called an interval valued fuzzy bi-ideal of M if (i) $\tilde{\mu}(x - y) \geq min^i\{\tilde{\mu}(x), \tilde{\mu}(y)\}$ for all $x, y \in$ M. (ii) $\tilde{\mu}(x\alpha y\beta z) \geq min^i\{\tilde{\mu}(x), \tilde{\mu}(z)\}$ for all $x, y, z \in$ M and $\alpha, \beta \in \Gamma$. In this paper, we introduce interval valued c-prime fuzzy bi-ideals in Γ-near-rings and obtain some of their properties.

Keywords

Γ-near-rings, bi-ideal, c-prime fuzzy bi-ideal, interval valued c-prime fuzzy bi-ideal.

Palm Vein Recognition scheme based on HOG.

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Abstract:--

Finger palm vein recognition is one of the methods used for identification because of its individuality, firmness, live body identification, elasticity and difficulty to cheat. This paper focuses on the technique for palm vein recognition. It comprises of three modules, Preprocessing, Histogram of Image Gradient, Palm Vein matching. Preprocessing is done with the help of OTSU and CLAHE techniques. Palm vein features are extracted using HOG. In palm vein matching, Chi-square distance value is used. The CASIA Palm Print Database is used for palm vein recognition. The performance of the proposed method is measured by the evaluation metrics such as accuracy, specificity, sensitivity, error rate , recall and precision.

Fuzzy pre Convergence of Fuzzy Nets

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Abstract:--

Nets and Filters are important tools in a topological space. Mathematicians introduced pre open sets in topological space. Recently Fuzzy Nets are introduced in topological space. The convergence of Fuzzy Nets and many properties of Fuzzy Nets are studied. In this paper we introduce Fuzzy pre convergence of Fuzzy Nets in topological spaces.

Keyword:--

Fuzzy Nets, Fuzzy pre convergence.

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Distance Measure to Reduce Dimensionality

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K.Gomathy, Department of Computer Science, A.P.C.Mahalaxmi College for Women –Thoothukudi

Abstract:--
     The management of huge data offers significant challenges in storage, transmission, and computational costs. The main approach is to reducing these costs is based on performing a linear mapping of the data to a low-dimensional subspace such that a large percentage of the variance in the data is preserved in the low-dimensional representation. In this paper, we propose a new distance-based approach to reduce the dimensionality and proved the results with the training data alone.

Keyword:--
     Huge data, low dimension, distance measure

Comparative Analysis of Classification Algorithm Using Machine Learning Technique

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Abstract:--
Data Mining is becoming one of the leading techniques applicable in a variety of area. Classification is a supervised learning approach of data mining and it is used to classify huge data. The dataset have been chosen from UCI Machine Learning Repository. Weka is a powerful machine learning tool that contains many built in algorithms to extract knowledge. In this paper we analyse the classification algorithm such as Naïve Bayes , K-Star, Random Forest, One-R. The multiple parameters taken into considerations for analytical purpose are Accuracy, True Positive Rate, False Positive Rate, Precision, Recall, F-Measure. Finally we observed the performance of the classification algorithm for the UCI Machine Learning data set.

Keyword:--
Naïve Bayes, K-Star, Random Forest, One-R, Data Mining

Utilization of Vanadium   Bountiful Biofouling Tunicates for the Enrichment of Azotobacter sp., - An Analysis

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Abstract:--
Tunicates / Ascidians belong to the Class Ascidiacea of the sub-phylum Urochordata are dominant members in macrobiofouling benthic community in the marine ecosystem and are placed in between Invertebrates and vertebrates. These amazing sedentary creatures have the ability to accumulate more vanadium content in its body than its environment due to the presence of specialized vanadocytes in their blood. This vanadium is essential for ascidians as chemical weapon to lead   a successful life in the pressurized environment. Vanadium is also an essential nutrient for   some microorganisms for the functioning of nitrogenase enzymes. Hence the present study is aimed to analyse the vanadium content in selected tunicates and its effect on the growth of Azotobacter sp., in in-vitro condition. In the present study, variation in accumulation of vanadium was recorded among the members of the Class Ascidiacea.the highest accumulation was recorded in Phallusia nigra.

Azotobacter sp., was isolated using Ashby's medium and was identified by performing the biochemical tests such as Gram staining, Catalase test, Oxidase test, Citrate Utilization test, Indole test, Methyl red test, Voges Proskauer test and Triple Sugar Iron test. The growth of azotobacter species was gradually increased with increasing the concentration of dry weight of the selected tunicates and and the Optical Density was measured. Besides, the pH and Indole acetic acid production was recorded in different groups, such as Group 1(Azotobacter) Group II (Azotobacter with Standard) and Group III (Azotobacter enriched with tunicates). The members of the Class Ascidiacea can be used as non-conventional bioresource from the marine environment for the enrichment source of non-symbiotic bacteria, Azotobacter sp.

Keyword:--
Ascidians, Enrichment source, Azotobacter, Biofertilizer

A Novel Scheme for Movie Recommendation System using User Similarity and Opinion Mining

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Dr. A.Pethalakshmi, Principal, Govt. Arts College for Women, Nilakkottai, Dindigul District,Tamilnadu, India

Abstract:--

Movie recommender system has become an interesting research topic due to the growth of users in a mobile environment. To recommend movies, a complete aggregation of user's preferences, feelings (emotions), and reviews required to assist users for find best movies in more convenient way. However to deal with the recommendation system, we must consider timeliness and accuracy. In this paper, we propose a movie recommender system based on new user similarity metric and opinion mining. The primary objective of this paper is to find the type of opinions (positive, negative or neutral) for movies and also suggest top-k recommendation list for users. We extract aspect-based specific ratings from reviews and also recommend reviews to users depends on user similarity and their rating patterns. Finally, validating the proposed movie recommendation system for various evaluation criteria, and also the proposed system shows better result than conventional systems.

Keyword:--

Movie recommender system, User similarity, Opinion mining, Aspect extraction, Top-k recommendation list

Blockchain Technology

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Sneha Srikanth, Professor, Department of Computer Science Engineering, Sri Sairam Engineering College, Chennai.
Dr.Meena Kabilan. A, Professor, Department of Computer Science Engineering, Sri Sairam Engineering College, Chennai

Abstract:--
A blockchain is a growing list of records which are called blocks and they are linked using cryptography. Each block contains a cryptographic hash of the previous block, a timestamp, and transaction data. By natural design, a blockchain is resistant to any modification of the data. It is an open distributed ledger that can record transactions between two parties efficiently. It is a verifiable and permanent way. A blockchain is typically managed by a peer-to-peer network collectively adhering to a protocol for inter-node communication and validation of new blocks. The blockchain technology was mainly invented for the usage of Bitcoin transactions. Bitcoins is a cryptocurrency which is a form of electronic cash. It is a decentralized digital currency without a central bank or administrator. Bitcoins can be sent from user to user on the peer –to-peer bitcoin network directly, without the need for intermediaries. Bitcoin is an innovative technology that offers several benefits, such as fast transaction speeds, low costs, and the elimination of the need for a third-party intermediary to process transactions. Unfortunately, Bitcoin has faced resistance from regulators because the technology has been used for nefarious purposes, including online drug purchases and Ponzi schemes. This paper also focus on the development of blockchain technology and the future use of bitcoins. This paper highlights the ways in which bitcoins is useful and how it differs from traditional currencies.

Keyword:--
Cryptocurrency, Bitcoins, Transaction, Economy, Ponzi schemes.

A study on neutrosophic generalized semi-closed sets in Neutrosophic topological spaces

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Abstract:--
The purpose of this paper is to introduce and study the concepts of neutrosophic generalized semi-closed sets and neutrosophic generalized semi-open sets in neutrosophic topological spaces.

Bi-ideals of Γ- Near-Subtraction Semigroups

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Abstract:--

　　　　Schein, B. M introduced the set theoretic subtraction '-' which is analogous to subtraction algebra and it is developed by Abbott, J. C. Zelinka,B. discussed the problem of Schein relating the structure of multiplication in a subtraction semigroup. Kim, K. H et. al. studied an ideal of a subtraction semigroup. Dheena, P. and his colleagues defined the concept of near-subtraction semigroups and discussed their properties. Alandkar, S.J gave the definition of Γ-near subtraction semigroup and some of its properties.

　　　　In this paper, using the concept of bi-ideals in near subtraction semigroups, we introduce the notion of bi-ideals in Γ-near subtraction semigroups. We show that the set of all bi-ideals of a Γ-near subtraction semigroup form a moore system. Also we proved that the intersection of a bi-ideals of Γ-near subtraction semigroup and sub-Γ-near subtraction semigroup is again a bi-ideal of X. Throughout this paper, by a Γ- near subtraction semigroup X, we mean a zero symmetric Γ-near subtraction semigroup.

Keywords:

　　　　Quasi ideals, bi-ideal, Γ-near subtraction semigroup.

Detour Domination Number of a Graph

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A. Nagarajan, Associate Professor Department of Mathematics, V.O.Chidambaram College, Thoothukudi, Tamilnadu, India.

Abstract:--

Let $G = (V, E)$ be a graph. A subset D of V is called a detour set of G if every vertex in V-D lies in a detour joining a pair of vertices of D. A dominating set of G is a subset D of V(G) such that every vertex in V-D is adjacent to some vertex in D. In this paper, we introduce the detour domination number of a graph find its bounds and derive the same of some standard and special graphs.

Keywords:

Detour, Detour domination, Detour domination number.

AMS Subject Classification: 05C78.

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C – Prime anti fuzzy bi – ideals in Γ – near – rings

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Abstract:--

      The concept of fuzzy sets was introduced by Zadeh in 1965. Γ – near – rings were defined by Sathyanarayana and the ideal theory in Γ – near – rings was studied by Sathyanarayana and Booth. C – prime fuzzy ideals of near – rings were introduced by Kedukodi,Sathyanarayana and Kuncham in 2007.In this Paper, we introduce the notion of C –prime anti fuzzy bi – ideals. An anti-fuzzy bi – ideal μ of M is called c – prime if for all $x, y \in M, \gamma \in \Gamma, \mu(x\gamma y) \geq \min\{\mu(x), \mu(y)\}$ and obtain some of their properties.

Keyword:--

      Fuzzy bi – ideal, anti fuzzy bi – ideal, c – prime fuzzy ideal

Oral Epithelial Dysplasia Classification Using Back Propagation Neural Network.

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Abstract:--
Over many years the grading of oral epithelial Dysplasia have been put forward in an attempt to obtain objectivity in grading of Oral Epithelial Dysplasia. However, despite these efforts variability remains unsolved. To overcome this, Computer Aided Diagnosis gives the exact grading of Oral Epithelial Dysplasia. The Discrete Wavelet Transform is applied to the photomicrograph and Histogram Oriented Gradient and Local Binary Pattern method is used to retrieve the feature vectors. The features obtained are given as the input to Back Propagation Neural Network which classifies the Grading of Oral Epithelial Dysplasia. The system shows the satisfactory performance for Histogram Oriented Gradient of above 85%

Photocatalytic Activity of Cadmium Oxide Nanoparticles

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Abstract:--
In this study Photocatalytic activity of Cadmium oxide nanoparticles was investigated by degradation of Methyl Orange and Methylene Blue dyes. Cadmium Oxide nanoparticles were synthesized by using Cassia auriculta flower extracts. The flower extract acts as both reducing and stabilizing agent for the synthesized nanoparticles. The crystalline nature and size of Cadmium oxide nanoparticles were confirmed by XRD analysis. The Elemental analysis was carried out by EDAX analysis.

Keyword:--
Green synthesis, Nanoparticles, Cassia auriculata, Photocatalyst.

Comparative Study on Noise Removal Techniques in Digital Images

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Abstract:--

    A visual image is rich in information. Digital images plays very significant role in our day today life. The influence and impact of digital images on modern society, science, technology and art are tremendous. Image Processing is a popular field from Medical to Robotics and the list pretty endless. Digital images are corrupted with various types of noises during acquisition and transmission. The main challenge in digital image processing is to remove noise from the original image. There have been several published algorithms and each approach has its assumptions, advantages, and limitations. The scope of the paper is to focus on different types of noises and denoising techniques which are encountered in digital images.

Keywords:

    Image Denoising, Filters, Transform Domain, Wavelet Thresholding.

Educational Policies and Sustainable Development

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Abstract:--
  Education is a process by which a person's body, mind and character are formed and strengthened and enable him to develop his all round personality, exploring the best in him or her. It is a humanizing process for transformation, to be able to think, relate to others meaningfully and understand the world and society clearly. A nation advances in proportion to education and intelligence spread among masses. Development of any country depends 20 percent on natural resources, 16 percent on infrastructure and 64 percent on human resources. This calls for a high quality and well trained human resources from our education systems.

  Drawbacks in Our Educational System and Higher education in India always faces certain primary challenges in certain aspects such as:

- Improving Access and Quality of Education at all levels
- Increasing Funding for Higher Level of Education
- Increasing the Literacy rate
- Education through Information & Communication Technology
- Removing secularism from education
- Modernification of Education System

  The suggestions are offered for qualitative up-gradation of higher education system. Things are changing at a rapid speed and the time has come to act. Thomas Carlyle has rightly said, "The end of man is an action and not a thought, though it was the noblest" we must join hands together and start action to make Higher Education in our country the best.

Culture of Oyster Mushroom (Pleurotusfla bellatus) On Agro Waste- Paddy Straw.

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Lakshmanan.G, Dr. SivanthiAditanar College of Education. Tiruchendur.

Abstract:--

Mushroom culture is one of the simplest and excellent applications of biotechnology. Mushrooms are of fungal origin and it now has universal focus and importance because of its nutritional value and therapeutic values which can be used for the remedy of various diseases and disorders. Mushroom cultivation uses agriculture waste products such as paddy straw, wheat straw, sugarcane magesy, coconut pith etc. The present review aimed to discuss the culture technique of oyster mushroom (Pleurotusflabellatus) as well as medicinal importance of mushrooms by simple survey among the people who have diabetes and hypertension.

Key words:

biotechnology, diabetes, Pleurotus flabellatus,etc.

Synthesis and Characterization of silver nanoparticles using seaweed *Sargassam tenerrimum* and their antioxidant activity

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Kalarani, Department of Chemistry, Kamaraj College, Thoothukudi.
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Abstract:--

    Green synthesis of nanoparticle prevents the atmosphere from pollution and its application in various fields has become the favorite pursuit of all researchers. Green synthesis of (AgNPs) was achieved by using the aqueous extract of Sargassam tenerrimum and AgNO3. Reduction of silver ions into silver nanoparticles was observed as a result of the color change from pale brown to dark brown. The synthesized nanoparticles have been characterized by UV-Vis spectroscopy and FT-IR spectroscopy. UV-Visible spectrum showed absorbance peak in range of 406 nm. Fourier transform infrared spectroscopic (FTIR) analysis was carried out to determine the nature of the capping agents in leaf extracts. The surface morphology of the synthesized silver nanoparticles were examined by using Atomic force microscopy. These synthesized silver nanoparticles using aqueous extract of Sargassam tenerrimum have shown to be a good potential source of antioxidant.

Keyword:--

    Green synthesis, Sargassam tenerrimum, Silver nanoparticles, UV, FTIR, AFM etc.

Digital India

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Abstract:--

It is a well known fact that digital economy is the outcome of many innovations and modern technological advancements. This will help and lead to transforming the lives of people in many different ways and will develop the society in a better manner. The Digital India drive is a dream project of the Indian Government to rechange India into a knowledgeable economy and digitally empowered society with good governance for citizens. But today India looks forward and wants to be fully digitalized whereas this programme will provide equal benefit and opportunities to the user and service provider. As there will be many obstacles coming on the way for successful implementation and rechanging India into a developed nation. India to become a digitalized nation it requires lot of hard work, efforts and dedication from each and every citizen in the nation. Hence, if implemented properly that which will provide standard quality of life as well as make India an electronically developed nation in the world.

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Efficient Data Retrieval in Cloud Computing

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Abstract:--
In Cloud computing, cloud customers can remotely store their data into the cloud so as to enjoy the on-demand high quality applications and services from a shared pool of configurable computing resources. The fact that data owners and cloud server are no longer in the same trusted domain may put the outsourced unencrypted data at risk. It follows that sensitive data has to be encrypted prior to outsourcing for data privacy. However, data encryption makes effective data utilization a very challenging task given that there could be a large amount of outsourced data files. Also outsourcing data to the cloud causes loss of control over data on a data owner's part. This loss of control over data is further intensified with the lack of managing users' access to the data from practical cloud computing perspectives. We address these challenging issues using Ranked Searchable Symmetric Encryption Scheme.

Keywords-
Cloud computing, secure data access, keyword search.

Work life balance

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Abstract:--

In recent days the changes taking places in business organization have led various consequences which have a major impact on the working life of the employees and the personal life. With increase in the stress levels, demands, increasing family level, socio-cultural attribute have made it difficult for people to create a balance between their work and family lives. And hence the present organizations have taken initiative to create a more suitable environment which would help employees to manage their work and personal life together. Due to high competition in globalized environment has led to sharp increase in the work life imbalance of employees. The main index that is quality of work, work place challenges, employee job satisfaction and retention does not only depend on the financial aspects but the main reason for employees to quit their jobs can be struggle between their work and life. This paper also examines the difficulties and complication in achieving balance between work and personal goals and discusses the current trends and solutions organization have in place for their employees to assist in performing the given tasks. And hence many of the organizations after having a detailed survey have realized this and various steps are been taken to provide work life assistance programs to enrich them further

Rhodamine 6G removal using iron impregnated *Prosopis Spicigera L.* Wood (PSLW) Carbon

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Abstract:--
Rhodamine 6G, a cationic dye is used to dyeing silk, cotton, wool, baste fiber, paper, leather, and plastic. It is toxic and carcinogenic in nature. Hence it is essential to remove Rhodamine 6G from dyeing industrial discharge and contaminated drinking water resources. In this present work, a waste plant material prosopis spicigera L.wood is carbonised (by natural process) and impregnated with iron, is used for the removal of rhodamine 6G from aqueous solutions by batch and column methods. The Fe impregnated carbon is characterized by FTIR for functional group, scanning electron microscope for surface morphology and potentiometric titration for pHzpc. Batch experiments have been carried out to investigate the influence of sorption parameters such as initial dye concentration, pH , contact time, in the presence of other ions and temperature on the removal of Rhodamine 6G. The batch experiments were carried out at pH 6.0. The adsorption equilibrium fits Langmuir isotherm. The kinetic data follows pseudo second order model. The thermodynamic study indicated that the adsorption of dye is spontaneous and endothermic in nature. In order to apply this process to industrial and domestic applications, column analysis was performed. Column data was analysed using Thomas model.

Keywords:
Rhodamine 6G, PSLW carbon, Adsorption, Langmuir Isotherm, kinetics, Thomas model.

Cognitive Methods of Dementia Treatment (CMDT)

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Aayush Mehrotra, Computer Science and Engineering, S.R.M. Institute of Science and Technology, Chennai, India
Manu Vardhan, Computer Science and Engineering, S.R.M. Institute of Science and Technology, Chennai, India

Abstract:--
Stress is a psychological reaction to unfavorable conditions & situations in life. Chronic stressful life situations can increase the risk of developing depression. It is very important to properly deal with depression. Dementia is a direct consequence of depression and stress. Dementia is a chronic or long-term mental disorder which is caused due to injury in the brain or any disease. The major effects which can be seen are disorders in memory function, changes in personality, and impairment of reasoning. Just like the rest of our bodies, our brains change as we age and may suffer from Alzheimer's disease. It is a type of dementia related to old age which leads to loss in cognitive function of the brain. Cognitive Methods Of Dementia Treatment(CMDT) is proposed in this paper to fill the gap between patient and caregivers. The platform chosen is Android due to its popularity. It has certain functionalities to help improve the lost cognitive abilities of the brain by exercising various abilities of the brain. CMDT is made up of functions which depend upon android framework, which uses the data provided by the patient to analyze the criticality of the condition. CMDT suggests and provides platform to overcome depression based on patient's performance.

Key Words:
Dementia, mental disorder, depression, Cognitive Methods of Dementia Treatment

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Antioxidant evaluation of Indian traditional medicinal plants; hygrophila auriculata (schumach.) Heine and azima tetracantha (lam) by an electrochemical method

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Abstract:--

The antioxidant activity potential of *Hygrophila auriculata* and *Azima tetracantha leaf* extracts were investigated against superoxide anion radical while employing cyclic voltammetry technique. The voltammetric response of the electrochemically generated superoxide anion radical in DMSO was monitored in the absence and presence of the plant extracts. The decrease in the current was interpreted in terms of antiradical activity of the added extracts. The thermodynamic feasibility of the radical scavenging by extracts were accounted in terms of antioxidant activity coefficient (K_{ao}) and standard Gibbs free energy ($-\Delta G^o$) . The possible mechanism of the antioxidant reaction was regarded as $E_r C_i$ mechanism i.e. reversible electron transfer followed by hydrogen atom transfer- an irreversible chemical reaction. Cyclic voltammetry is expected to be a simple method for screening antioxidants and estimating the antioxidant activity of foods and medicinal plants.

Keyword:--

Antioxidant activity, superoxide anion radical, cyclic voltammetry, binding constant, Hygrophila auriculata , Azima tetracantha .

C – Prime fuzzy bi – ideals in Boolean like semi rings

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Abstrac:--
       C – Prime fuzzy ideals of near – rings were introduced by Kedukodi, Satyanarayana and Booth. C – Prime fuzzy ideals of Γ - near – rings were discussed by N.Meenakumari, T.TamizhChelvam. In this paper we extend the notion of C – Prime fuzzy bi – ideal μ of Boolean like semi ring R is called C – Prime if for all $x,y \in R, \mu(xy) \leq \max \{\mu(x), \mu(y)\}$ We investigate some of its properties.

Keywords:--
       Boolean like semi ring, fuzzy ideal, fuzzy bi –ideal, C - Prime fuzzy bi – ideal.

A Review on Deep Learning-based Fine-grained Object Detection and Part Localization

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Abstract:--
     The rapid growth of image data leads to the need of research and development of image retrieval. Compared to normal image, fine grained images are difficult to classify. Recognizing objects in fine grained domains can be extremely challenging task due to subtle differences and variations in poses, scales and rotations between same species. The categories are all similar to each other but have marginal visual differences that are even difficult for human to recognize. This task is extremely challenging due to high intra-class and low inter-class variance. Deep learning has recently achieved superior performance on many tasks such as image classification, object detection and neural language processing. The core of the deep learning technology is that the layers of the features are not designed by human engineers and instead learned from data using a general-purpose learning procedure. In this survey we mainly focus on the object detection and semantic part localization approaches which can facilitate fine grained categorization.

Keyword:--
     Deep learning, fine-grained images, object detection and part localization.

Recommending Customized Travel Itinerary Based On Big Social Media

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Abstract:--
  Recommending a travelplan forms a crucial step when plotting a travel itinerary for an individual or a group as a whole. The paper presents a recommendation of a customized travel itinerary from video logs and images and therefore the different types of data (e.g., tags, geo-location, and the date of image) related to the images. In contrast to the prevailing travel recommendation media, this approach isn't solely customized to the travel itinerary of the traveler, however additionally able to improvise a travel plan instead of Individual PreferredLocations (IPL). Big media, especially the well foundation of web-based social networking (e.g., Face book, Flick, Twitter and so forth.) offers extraordinary chances to address many testing issues. The bundle house together with delegate labels, the dispersions of value, going by time and period of each place, is mined to support the crevice between the client's travel decision and travel courses. It tends to profit from the combination of 2 styles of social media: attraction and photos. In this paper the RCTI (Recommendation of Customized Travel Itinerary) proposes to outline client's and courses' portrayals to the specific bundle house to urge client's close to home bundle model and course bundle show (i.e., locational intrigue, cost, time and season). To advocate customizedtravelitinerary, first, highlighted routes are stratified in line with the likeness between client bundle and course bundle. At that point prime stratified courses if any are enhanced by comparable web-based social networking clients' travel records.

Keywords:--
  Travel Recommendation, Geo-Tags, Individual Preferred Location, Social Media, Recommendation of Customized Travel Itinerary

Predicting Stock Market Behaviour using Sentiment Analysis

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Abstract:--

Internet has made word more connected and every industry is under influence of social media, news, data analysis etc. Twitter is main source of communication for masses. How a company behaved to its customers news will spread so fast throughout the internet that people start reacting towards this news[1]. Everybody wants to be a part of that news and information so they start sharing and it creates a chain where masses are boosting the news throughout globe. People all over globe react by boycotting the services of those companies or buying more of its services or products. Resultantly the sales of company increase or decrease and so do their profits and revenue. Markets[2] and investors reacts to such understanding of company going into loss or profit by buying or selling shares of the company. Predicting Stock Market Behaviour PSMB system is designed to predict and give an adequate information about the company's overall view in minds of masses by analysing sentiments of people on twitter, by analysing the news articles on financial websites and analysing the Google trend data. All such information will provide a perspective to an astute investor who looks into all factors before investing his savings in a profitable stock or bond.

Keyword:--

Data analysis, social media, shares, Predicting Stock Market Behaviour, Analysing sentiments

Home Automation Monitoring Using IoT

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Abstract:--

The statistical results of the world population shows that the elderly population worldwide is rapidly increasing as average expectancy of people increases in all aspects. It is a great challenge for governments and nations around the globe to provide complete care and support for this tremendously growing population. One of the major growing industries that can change the way of living is home automation. In Home automation, there are two different target expected. One is luxury and sophisticated home automation platforms; second is meeting the special for the elderly and the disabled. The system should be user friendly, reliable, reasonably cheap, easy to configure, and easy to run. The growth of Bluetooth technology, Smart phones and advancement of Microcontrollers made a great impact on automation field. On a whole the automation can be achieved in a simple, efficient and cheaper way.

A Parallel Approach to ModifiedRPset

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Abstract:--
　　　Recently, most of the applications will not need precise support information for frequent pattern. They approximate the frequency of every frequent pattern with a guaranteed maximal error bound. But, these algorithms generally have some problems and challenges while processing large-scale data. Therefore, the parallel approach has emerged as an important research topic. This paper implements the algorithm ModifiedRPset in a parallel manner while creating NCFP-tree. It follows the concepts such as considering closed patterns, finding C(X)s for closed patterns and applying greedy set cover algorithm which are same as in the previous algorithms MinRPset and ModifiedRPset. The experiment results show that the proposed algorithm gives better execution time for finding a small number of representative patterns to best approximate all other frequent patterns comparing to the algorithm ModifiedRPset.

Keyword:--
　　　Frequent itemset, threaded NCFP-tree, greedy method, representative pattern sets.

Structure in the zero – divisor graph of a non commutative Γ – near – ring

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Abstract:--

Let M be a non – commutative gamma near ring with Nil(M) its ideal of nilpotent elements, Z(M) its set of zero divisors respectively. In this paper, we introduce and investigate the directed zero divisor graph of M. we investigate various characteristics of this graph and obtain corresponding result related with the Γ- near –ring theoretic concepts.

Keyword:--

Non – commutative rings, zero – divisors, regular elements, nilpotent elements, tournament.

On fuzzy ideal based fuzzy zero divisor graphs in gamma near rings

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Abstract:--
In a manner analogous to a Γ- near ring M, the fuzzy ideal based fuzzy zero divisor graph of a gamma near ring M can be defined as the undirected graph $\Gamma(\mu)$ for some fuzzy ideal μ of M. The basic properties and possible structures of the graph $\Gamma(\mu)$ are studied.

A Review on Feature Extraction Techniques for CBIR with different BTC methods

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Abstract:--

A Content Based Image Retrieval (CBIR) is one of the fastest growing research areas to search the relevant images from the large image collections by analyzing the content of the user required query image. The retrieval time in CBIR is reduced by extracting the image features from the compressed image instead of the original image. The Block Truncation Coding (BTC) is a very efficient compression technique which requires least computational complexity and it can also effectively employed to index images in database for CBIR applications. Various improved versions of BTC methods are available for compression which is suitable for CBIR. This paper gives the review of feature extraction techniques for CBIR with different BTC methods such as Ordered Dithering BTC(ODBTC), Error Diffusion BTC (EDBTC), Dot Diffusion (DDBTC).

Literature Survey On VR Based Soft Tissue Surgical Simulation

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Abstract:

Virtual Environments have been used to train medical surgeon's field. Using such simulators, occupants and surgeons can grow or progress their skills in precise surgical processes. In this report, reviews of related work in the use of virtual environments in several surgical fields are existing. Modeling and simulating the live tissues is a very complex and puzzling process as it requires a huge amount of hardware power and advanced algorithms to be run on real time. There are number of articles, books and research papers which pronounce the possessions of the different anatomy structures. This tissue modeling eminence fluctuates ranging from surgery types: neurosurgery, heart surgery, abdominal surgery, plastic surgery, minimal invasive surgery etc. Deformation accuracy and the computation time are the two substantial constraints in soft tissue modeling for surgery simulation. Hence it has branded in the surgery territory the required surgery types can be categorized under three major title which are surgery planning, Surgery training and scientific analyzing. Here with this paper it is expect to equate and difference the soft tissue modeling techniques.

Key Terms:

VR, soft tissue,FEM,MSM

Some New Separation Axioms in Topological Spaces

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Abstract:--

   A subset A of a space (X,τ) is said to be $sb\hat{g}$-closed if $scl(A) \subseteq U$ whenever $A \subseteq U$ and U is $b\hat{g}$-open in X . The complement of $sb\hat{g}$-closed set is $sb\hat{g}$-open set. A function $f:(X,\tau) \rightarrow (Y,\sigma)$ is said to be $sb\hat{g}$-continuous if $f^{-1}(V)$ is $sb\hat{g}$-closed in (X,τ) for every closed set V in (Y,σ). A function $f:(X,\tau) \rightarrow (Y,\sigma)$ is said to be $sb\hat{g}$-irresolute if $f^{-1}(V)$ is $sb\hat{g}$-closed in (X,τ) for every $sb\hat{g}$-closed set V in (Y,σ). In this paper, we introduce three new topological spaces namely $sb\hat{g} - T_0$, $sb\hat{g} - T_1$ and $sb\hat{g} - T_2$ spaces via $sb\hat{g}$-open sets. Also we characterize their properties.

Keyword:--

   $sb\hat{g}$-closed set, $sb\hat{g}$-open set, $sb\hat{g} - T_0$ space, $sb\hat{g} - T_1$ space, $sb\hat{g} - T_2$, $sb\hat{g}$-kernel.

Isolation of Keratinolytic Microorganisms and Estimation of Keratinolytic Activity

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Dr.P.Vanitha Pappa, Research Supervisor, Assistant professor of Zoology, Rani Anna Government College for women, Affiliated under Manonmaniam, Sundaranar University, Abisekapatti, Tirunelveli

Abstract:--
Chicken feathers are the most abundant keratinous biomass in the world. Only 60-70% of the poultry slaughterhouse products are edible. The slaughterhouse by-products contain keratin which forms more than million tons of waste worldwide annually. Disposal of the huge and increasing volume of waste feathers, presents as a major concern for poultry industry. On the other hand, energy and material recovery of this valuable protein source is an important issue for organic solid waste treatment and bioenergy generation. The high protein content of poultry feather makes it an excellent raw material for various utilizations. Dried feather contains 91% proteins and with 0.2 methane potential (m 3 kg-1 VS added) and 0.05 methane potential. The keratin-content of the feather has the difficulty in pre-treatment before utilisation. Fungal isolates: Aspergillus flavus, Aspergillus niger and Fusarium species are found to produce keratinase enzyme, which can be beneficially used for pre-treatment of feather. Different types of fungal isolates which degrade keratinous substrate are screened using feather bait technique. The isolates were then cultured in feather meal medium to induce keratinase enzyme production. The activities of enzyme produced by different isolates were estimated using spectroscopic technique. The potential feather degrading enzyme is then analysed. The treated keratinous waste can be used economically in bio gas production, as fortified food for animals and also as bio fertilizer for plants. Recycling of the slaughterhouse feather and by-products can solve three main problems: disposal of harmful materials, producing of renewable energy and soil nutrient. Feather waste-this difficultly disintegrating material produced in large amount-finds an environmentally friendly way of utilization

The Confluence of Turkish and European Lifestyle in the Writings of Pamuk

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Abstract:--
        The Turkish writer Orhan Pamuk's writings bring out the interlacing and the intermingling lifestyle of both the Turkish and the European people.For his incredible work he has won the noble prize in the year 2006. The notable works are My Name is Red, The Black Book, The Museum of Innocence, Snow, The White Castle and The Silent House. He became a high profile figure in Turkey by giving his support for Kurdish political rights and by expressing his views on Armenian genocide. His phenomena of comparing both the lifestyles of East and West lead not to conflict but to transnational hybridity. His works consists of literary explorations of Istanbul, his native city. This conveys the notion that he is a good observer of what happens in and around his native city. Pamuk's novels and his portrayal of Istanbul are characterized not by a clash or even an encounter between East and West but rather a long standing contact between the two. Pamuk is a secular voice in the Islamic majority Turkey. This article presents the writings of Pamuk as the confluence of both Turkish and European lifestyle by discussing some of his works and analyzes the cultural impact in the city Istanbul and in the lifestyle of the Turkish people who were traditional and conservative in the early years. The acceptance of European lifestyle and not abandoning their own is the quintessence of all the writings of Orhan Pamuk.

Keywords:
        Culture of Istanbul, the Eastern and Western Culture, tradition & modernism.

A New Type of Quasi- open and Quasi -closed functions in Topological Spaces

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S. Pious Missier, Associate Professor (Retd), PG and Research Department of Mathematics, V.O.C College,Tuticorin. Affliated to Manonmaniam Sundaranar University, Tirunelveli, India

Abstract:--

The purpose of this paper is to introduce the concepts of Quasi semi*δ-open and Quasi semi*δ-closed functions using semi*δ-open sets and investigate their basic properties. We also discuss their relationships with already existing concepts.

AMS Subject Classification: 54C10, 54C08, 54C05.

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A New Privacy Preserving Approach for Health Records

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S. Kavitha, Department of Computer Science, A.P.C.Mahalaxmi College for Women –Thoothukudi
P. Manju, Department of Computer Science, A.P.C.Mahalaxmi College for Women –Thoothukudi

Abstract:--
To preserve privacy of health care data, many anonymization techniques have been introduced. Most of the existing anonymization techniques reduce data utility but not suitable for the multiple threads. In this paper, we propose an innovative approach namely call generalization, that increases both privacy and utility of health records. Experimental result show the efficiency of the model.

Keywords:--
Privacy, Health care data, Anonymization, Utility, Threads

Quantify the Wave Attenuation on the Effect of Submerged Vegetation using Flow-3D software

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Abstract:--
Submerged coastal vegetation, such as seagrasses has the main functions in the hydrodynamic aspects; wave attenuation, protection of the coastal region from wave attack, soil erosion and stabilizing the seabed. A fully three-dimensional numerical model has been developed to simulate the wave–vegetation interaction and to study its phenomenon. This paper was discussed with the study of the efficiency of vegetation as a buffer system in attenuating the incident ocean waves. This model uses a Vegetation-Flow Parameter that combines the characteristics of vegetation and waves; Vegetal Parameter that describes the length of the meadow (L), the spacing of the plant (SP), plant density (N), plant height (hs) and thickness (t) of the vegetation. Waves were simulated by specifying wave characteristics like wave height (H), water depth (h), wave period (T) and submergence ratio (hs/h). The numerical simulations results were compared with the literature experiment results which show that the interaction of waves leads to a greater attenuation of waves in the presence of vegetation.

Keyword:--
Wave attenuation; Vegetation-Flow parameter; Seagrass; Submergence ratio.

Assessment of Water Quality using GIS in Madurai Region.

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Abstract:--
      Water plays an important role in this world. It is a common basic need for human life. Surface water and subsurface water are the two sources of water. Now a days these water sources are contaminated due to disposal of waste water, gasoline, oil spills, atmospheric contaminants, chemicals and road salts. Groundwater contamination occurs when man-made products such as, oil, road salts and chemicals get into the groundwater and cause it to become unsafe and unfit for human use. Drinking contaminated groundwater can have serious health effects. Hence the characteristics of ground water is tested by collecting the groundwater samples from 30 stations. Octo Aqua test kit, which is a Multi Parameter water Testing kit, is used to test the samples and finally the results are tabulated. Then the water parameter concentrations of the regions around the sample stations are estimated using IDW interpolation technique in ArcGIS. Then the health hazard hotspots with high concentrations of water quality parameters are inferred from the IDW interpolated map. Appropriate remedial measures can be taken in the hotspot regions where the parameters are alarmingly high.

Lineament Extraction Using Remote Sensing Techniques in Tiruchendur,Tamilnadu,India

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.

Abstract:--
      Lineament plays a significant role as a major factor for groundwater potential mapping which can be detected by integrated GIS and image processing techniques. The lineament are hard to map in field ,satellite remote sensing and Geographical Information System (GIS) can be effective technique in this endeavor .In the present study an attempt has been made to study the lineaments of the Tiruchendur of Tamil Nadu in southern India. . Lineaments extracted from eight different azimuth angles of the SRTM DEM. For the automatic lineament extraction, eight shaded relief images were generated using the DM and those images integrated into two resultant images with multi-directional light. This combined image was developed using the two resultant shaded relief images. Three programs have been used in the work are PCI-Geomatica 2014, ArcGIS10.2,and Rockwork16 for further lineament analysis. The final results of this study indicate that, the area is affected by several structural trends: NE-SW, NW-SW and N-S direction.

Prediction of Cbr from Index Properties of Soil through ANN Modelling

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N. Angelin Niji, Student, Department of Civil Engineering, University College of Engineering, Nagercoil, Tamil Nadu, India.

A. Sumil Kumaran, Department of Civil Engineering, University College of Engineering, Nagercoil, Tamil Nadu, India.

Abstract:--
California Bearing Ratio (CBR) value is an important soil parameters for design of Flexible pavements and runway of air Fields. It can also be used for determination of sub grade reaction of soil. It is one of the most important engineering properties of soil for design of sub grade of rural roads. CBR value of soil may depends on many factors like Liquid limit (LL), Plastic limit (PL), Plasticity Index (PI). An attempt has been made here to correlate soaked CBR value with LL, PL, PI and grain size distribution of some soil sample collected from different locations of Tirunelveli District of Tamil Nadu, India. Correlation Coefficient (R^2) of each of these properties with CBR is determined and their significance is tested by using Statistical Test. Finally a Linear multiple regression models were developed by using Artificial Neural Network (ANN) Modelling Statistical Six Sigma software and liner statistics of Microsoft Excel for determination of CBR value involving the above mentioned soil parameters. The ANN predictions for CBR correlation coefficient (R^2) of 0.951003 for training set for the network topology of 56.MLP 5-52-1. Similarly for testing set the ANN predictions for CBR yield a correlation coefficient (R^2) of 0.949158. Thus this model is used for predicting the CBR values of the Silty Soil.

Keywords:
CBR, LL, PL, PI, Grain Size Distribution, Artificial Neural Network (ANN), Multi Linear Regression, Coefficient of Correlation (R)

Synthesis, Characterization and photocatalytic Application of nano ZrO_2 and MoO_3-ZrO_2 mixed oxide Nano Particles

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Abstract:--
Nano MoO_3-ZrO_2 mixed oxides were prepared using wet chemical method by mixing equimolar solutions of Ammonium molybdate(0.1M) and Zirconium oxychloride(0.1M) in 1M aqueous Sodium hydroxide and it refluxed at elevated temperature. The prepared nano MoO_3-ZrO_2 mixed metal oxide nanoparticles were characterized by UV, FTIR,TEM, and photocatalytic studies. The absorption peak for ZrO_2-MoO_3 mixed oxide has been found to be at 290 and 308nm. The size of synthesized nanoparticles were further confirmed by TEM and it was found to be 50nm. The prepared mixed metal oxide nanoparticles shows a good photocatalytic activity,thus it can be used as a photocatalysts.

Keyword:--
MoO_3-ZrO_2 , UV,FTIR,TEM.

A Study on Impact of online food ordering through Shopping Apps in Semi-urban markets, Thoothukudi.

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Abstract:--
　　　　With the increasing pace of globalization and tourism the online food ordering has become one of the major concerns of public utility. The rapid urbanization, Economic downturn, rising job tension and lower take-home in the recent decades has led online food ordering or take out from the vendors to cater their needs. Market-level data are used to estimate demand for time periods, incorporating changes in availability as well as prices, income and various demographic characteristics. Mobile technology has the potential to influence the fast-food industry - a powerful tool for making ordering more convenient, boosting customer loyalty and wider choice of food items. The availability of online apps finds greater availability that has led to increased consumption. Failure to account for these types of marketplace changes could lead to incorrect inferences regarding the factors responsible for the industry growth.

Keywords:
　　　　Fast Food, Online Ordering, Food Delivery App, Payment Methods

A Survey on Classification Algorithms in Data mining

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Abstract:--

Classification is one of the dimensions of data mining that groups the attributes based on the training records. This classification is widely used in many applications namely medical diagnosis, target marketing, news group filtering and document organization. In this paper we provide a survey of wide variety of classification algorithm.

Keywords:

Classification, Dimension, Data mining.

On Generalized(m,n) Bi-ideals in Near Subtraction Semigroups

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V.Mahalakshmi, Assistant Professor of Mathematics, A.P.C Mahalaxmi College for Women, Thoothukudi.
S.Jayalakshmi, Associate Professor of Mathematics, Sri Parasakthi College for Women, Courtallam.

Abstract:--
　　　　In this paper we introduced the concept of generalized (m,n) bi-ideal in a class of near subtraction semigroups (i.e) A near subtraction semigroups X satisfying the condition; A subalgebra B of (X,-) is said to be a generalized (m,n) bi-ideal of X if $B^m X B^n \subseteq B$,where m and n are positive integers. Also we study certain properties of bi-ideals in a left permutable s-near subtraction semigroups . Also we generalize the notion of bi-ideals and obtain the properties of generalized bi-ideals in certain classes of near subtraction semigroups. Further it is shown that the concept of generalized bi-ideals and bi-ideals are equivalent in a left permutable s-near subtraction semigroups.

Stress Management of Women in Agriculture

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Dr.V.Darling Selvi, Assistant Professor, PG & Research Department of Commerce, Rani Anna Government College for Women, Tirunelveli-8, Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli – 627012, Tamilnadu, India..

Abstract:--
     Agriculture is the backbone for India, likewise women is the backbone for agriculture. It is the involvement of women which make the agriculture prosperous. Woman is the only personality who can do every work in a systematic manner. But in some cases they are facing many problems mentally and physically. This paper focuses on the stress faced by women labourers and the opinion of 600 women respondents which are collected from various blocks in Tirunelveli district. It will be clearly shown that the stress is crucial for women who all are involved in agriculture as partly or fully. The researcher has applied factor analysis, percentage analysis and Garett ranking to get the most accurate result for interpretation.

Keywords:
     Agriculture, Mental, Physical, Stress, Women labourers

A Novel approach of Crop selection using Soft Set Theory

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Abstract:--

Soft sets have been used extensively for decision making problems. Research on soft sets based decision making has received much attention in recent years. Decision making is very sensitive in today's fast moving world. It takes significant role in the field of selection of best fit in different alternatives. Different parameters and their values help decision makers to take right decision at right time. This paper brings in awareness on decision making model in crop selection by using soft set theory that helps to identify the crop to be cultivated by a farmer which suits best of his expectations by the questionnaire and it can be optimized by Relative closeness Method. In this paper we propose the Weight Aggregation Analysis algorithm in decision making for selecting a suitable crop to be cultivated depending on the available features using Relative closeness Method.

Keyword:--

Soft Set, Quick reduct, K-Means, Weight Aggregation Analysis Algorithm, Relative Closeness Method .

A Survey on Optic Disc Detection and Segmentation Techniques

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Dr.V.Subha, Assistant Professor, Department of CSE, Manonmaniam Sundaranar University, Tirunelveli

Abstract:--

Optic disc detection and segmentation is one of the key elements for automatic retinal disease screening systems. It is important for detecting clinical features of Diabetic Retinopathy such as microaneurysms, hard exudates, soft exudates, hemorrhages, neovascularization and macular edema. This paper examines the optic disk localization methodologies in two dimensional retinal images acquired from a fundus camera. The aim of this paper is to review and categorize the optic disc detection and segmentation techniques and methodologies. The performance of segmentation algorithms is evaluated using a number of publicly available databases of retinal images via evaluation metrics which include accuracy and true positive rate (i.e. sensitivity). The current and future research directions are summarized and discussed

Keyword:--

Retinal Image Processing, Optic Disc, DRIVE, STARE, Optic Disc Detection and Segmentation

Teaching Strategies for Students with 'DYSLEXIA'

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Abstract:--
    Dyslexia is a variety of learning disability. The word dyslexia is derived from Greek (dys+lexis) dys- difficulty, lexis- word which means reading difficulty. Kids with dyslexia have trouble with reading comprehenshion, spelling and writing. But they can do and involve in several activities which they are more interested than studies. The parents or the teachers are the responsible to notify the problem of dyslexia right from the childhood itself. Then only we can make the kids to overcome dyslexia. A teacher is a most important person who can easily find out the student with dyslexia & give some teaching strategies / techniques to the particular student. For example, giving special care to the student, Using more teaching aids, appoinment of special teachers only for students with dyslexia, giving encouragement and motivation to come a flying colours in their interested fields.etc. In this paper several teaching strategies for students with dyslexia are dealt in particular.

Keywords:
    Dyslexia, Learning Disability, Teacher, Students, Teaching Strategies.

Study on Urban Sprawl Pattern Recognition

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Dr.V.Vallinayagi, Head & Associate Professor,Department of Computer Science, Sri Sarada College for Women, Tirunelveli.

Abstract:--
　　　　The migration of people from urban areas to low-density rural areas creating local economic growth in a community is termed as urban sprawl. The factors such as lower land rates and house tax rates, improved infrastructure, rise in population growth, development of highway roads, educational institutions, rise in living standard of the people lead the way to urban sprawl. But the urban sprawl also paves way to negative effects like increased traffic, environmental issues, and impact on social lives and increase in public expenditure. This leads to the need for proper prediction & planning of urban sprawl for betterment of society. As urban sprawl varies for each location, time period and current scenario of that place, the prediction of urban sprawl is carried out by analyzing the past growth of the city over long period of time. Satellites Landsat series are commonly used for analyzing the Land use/Land cover of the city. The prediction analytical tool is built for the target area with the results influenced by the past growth of the city. The tool is built such that it predicts the next targeted growth area and gives preparation time and idea for monitoring the urban sprawl.

Implementation of Modified Security Paradigm to Data for Cloud Computing

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Dr.S.John Peter, Associate Professor & Head of Research Center, Dept of Computer Science, St.Xavier College (Autonomous and Affiliated to Manonmaniam Sundaranar University, Tirunelveli), Palayamkottai, Tamil Nadu, India.

Abstract:--
   Today cloud plays a vital role in all walks of Information Technology. Applications and data moved to Cloud can be accessed at anytime, at anywhere and in any device. So lots of business organizations from small to large are showing great interest to migrate to cloud but they revert due to some yet to solve security issues in cloud. The main problem is that they are reluctant to put their sensitive data in an unknown third party Data Center not owned by them. To address this security issue, we have already come up with an Effective and Efficient Cryptographic algorithm for transmission, storage and key-exchange through cryptanalysis on different symmetric and asymmetric cryptographic algorithms. In this paper based on the study a New Security Frame work for cloud is designed and implemented in an effective and efficient manner.

Keyword:
   Cloud, Data, Security issues, Cryptographic algorithm, New Security Frame Work.

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Automatic Lineament Mapping Using Digital Elevation Model in Kalkulam Taluk, Kanyakumari,Tamilnadu,India

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Abstract:--
Lineament analysis is used for geological studies, and it considers important structural and geological indicator to determine general and local tectonic trends and fractures zones in the rocks. Geological structure is used to indicate the location of ore deposits, landslides & groundwater movements. The aim of the study was to investigate lineaments and lineament trends in the study area. Hill shade image is produced by the use of Digital Elevation Model data. These images are used to identify lineaments in different distinct relief & topography. Because of the topographic illumination lineaments under varied light direction by enhancing the lineaments at a different orientation. Final image (combine the four shaded image) is used to enhance the lineaments four sun azimuth directions. The first shaded image of the four azimuth angles of light sources are $0°, 45°, 90° \& 135°$and second images of the four azimuth angles of light sources are $180°, 225°, 270° \& 315°$. These are created by two shaded relief images with multi-directional light.These images are used for automatic lineament extraction. These images created using PCI Geomatica software. The extracted lineaments of the first and second images show that they represent lineaments respectively of the study area. The directional analysis of automatically extracted lineament maps is done successfully with the use of rockware software. The lineament extraction of both images direction is NW-SE, N-S, E-W & NE-SW. The high level lineaments are in the NW-SE direction.

Review on Data Classification Mechanisms Used In Cloud Computing.

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Dr.V.Vallinayagi, Head & Associate Professor, Department of Computer Science,Sri Sarada College for Women, Tirunelveli

Abstract:--
Cloud computing is a type of internet based computing which means storing and accessing data through the internet platform instead of personal computer. Cloud provides number of software, infrastructure,platform and storage services to users. Sheltering user data is the challenging issue in the cloud environment as data is stored and maintained by third party service providers.To address this issue numerous security procedures are followed.Encryption is a peculiar technique used in cloud to protect user data.Encrypting entire data without examining its security needs will lead to excess amount of storage and additional processing power. Outcome of this problem is a classified encryption method [1].According to this method data is classified based on its security level and application of encryption algorithms. Sensitive data needs higher level of encryption techniques whereas basic data does not require these encryption techniques.Various classification algorithms are used such as"Decision tree"," Random forest", "KNN" (K Nearest Neighbor), "Naïve Byes" and "C4.5" are some of them.These algorithms follow the supervised learning methods which means these algorithms analyze the new training data with previously labeled data and gives proper output. Main objective of this data classification in cloud is to aim for better security and coherent usage of memory [2]. In this paper, detailed study of these data classification methods used in cloud environment are exposited.

Keyword:--
Encryption algorithms, Classification algorithms, Decision tree, Random forest, KNN.

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Morphological and Micro Morphological Studies of Coastal Soil Samples of West Coast of Kanyakumari District

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G.Aldous Jenin, Department of Bio Chemistry, Lekshmipuram College of Arts and Science, Neyyoor.

Abstract:--
　　Coastal soil samples contain the most economically important mineral accumulations. Soil minerals play a significant role in dictating the suitability and behavior of soil for various land uses. Beaches are one of the important land forms and the most important feature of coastal morphology. The morphology of a beach is mainly controlled by wave, climate, tide and sediment characteristics. An equilibrium beach results from a balance of destructive and constructive force acting on the beach. Soil structure is defined as the shape, size and spatial arrangement of individual soil particles and cluster of particles and combination of different types of pores with solid particles. Morphology, micro morphology and elemental mapping analysis were carried out to determine the ultra structure and composition of elements present in coastal soil samples by Scanning Electron Microscope (SEM), Atomic Force Microscope (AFM) and EDAX with elemental mapping and Light Microscopic (LM) techniques. SEM analysis showed the coastal soil samples have different morphological structures like spherical (Al-Si-O), tubular (Si-O), triangular (Fe-Al-Si-O), platy (Ca-Si-O), nearly spherical (Fe-Ti-O) and irregular (Ca-Al-Si-O) shapes. Elemental analysis (EDAX) confirmed the presence of silicon in large quantities than the other oxides such as Al, Ca, Fe and Ti. Elemental mapping showed the enriched elements clearly. AFM studies confirmed the ultra structure of soil samples. Light Microscopic studies confirmed the micro morphological studies of soil samples of west coast of Kanyakumari District.

Keyword:--
　　Scanning Electron Microscope (SEM), Light Microscope (LM) and Atomic Force Microscope (AFM).

Growth and studies of undoped and zinc sulphate doped L-histidine single crystals

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C.Gnana Sambandam, Department of Physics, S.T.Hindu College, Nagercoil, Tamilnadu, India.
U.Rajesh Kannan, Department of Physics, Kamaraj College, Tuticorin, Tamilnadu, India

Abstract:--
Single crystals of pure (undoped) L-histidine and zinc sulphate doped L-histidine have been synthesized and grown by slow evaporation method using water as the solvent. The grown crystals are characterized by FTIR, XRD, TG/DTA, SEM-EDAX and microhardness studies. From Fourier transform infrared (FTIR) spectral analysis, the various functional groups present in the sample have been confirmed. The X-ray diffraction (XRD) study ensures that the grown crystal crystallizes in the orthorhombic system and the corresponding lattice dimensions have been identified. The thermo gravimetric analysis (TG) and differential thermal analysis (DTA) indicate that the decomposition point of the samples is more than 250 oC. Energy Dispersive Analysis X-ray Spectroscopy (EDAX) reveals that the presence of elements in the grown crystals. Using the microhardness studies, the mechanical strength of the samples have been analysed.

Keyword:--
Single crystal; NLO; growth from solution; characterization; FTIR;XRD;TG/DTA;EDAX; hardness

Immunostimulating activities of a colonial ascidian Ecteinascidia venui against S-180

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Jothibai Margret. R, Associate Professor, Department of Chemistry, Pope's College, Sawyerpuram, Tuticorin
Meenakshi. V.K, Associate Professor, Department of Zoology, A.P.C Mahalaxmi College for Women, Tuticorin

Abstract:--
Studies on immunostimulation as an effective and protective approach have become inevitable. Most important for safe a therapeutic agent in the treatment of cancer is on the determined against S-180 bearing Swiss albino mice. After tumor inoculation, the extract at the dose of 100, 150 and 200 mg/kg body weight were administer and compared with the standard drug Vincristin (80 mg/kg bw). Analysis of Bone marrow cellularity, β-esterase activity, antibody titre, plaque forming cells, GGT, GSH and NO levels were carried out adopting standard procedures. The immunonature of the ethanol extract of the extract increased bone marrow cellularity 22.81×106 cells/femur) and β-esterase positive cells (1085/4000 cells). The antibody titer was 265.16±1.84) in Group IV on the 15th day of treatment. Plaque forming cells in spleen increase reaching a peak (216.88±2.58) on the 6th day. A reduction in serum Gamma15th day in treated mice. The results in increased gradually Glutamyl Transpeptidase (GGT), cellular Glutathione (GSH) and restoration of NO levels was observed on the 15 compounds playing important role in immune response.

Keywords:
S-180, Bone marrow cellularity, GSH, GGT

Experimental Analysis of Heat Transfer Characteristics In A Square Duct with Perforated Internal Fins

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Abstract:--

Developing high-efficiency heat exchanging equipment such as heat exchangers and solar air heaters is an effective way to conserve energy. In order to achieve this objective, fins can be introduced on the internal surface of heat exchangers. For higher efficiency the surface area of contact of these fins has to be increased. So, Perforations like circular holes are also introduced in these internal fins to get higher efficiency. Different arrangement configurations like Parallel oriented (P type) and collinearly oriented (V type) with different materials such as Aluminium and Brass with and without perforations different velocities are investigated and found to have different heat transfer characteristics. From this study the optimum orientation, material and profile of the fin is identified for better heat transfer characteristics.

Keyword:--

P type and V type Ribs, Internal fin, heat transfer, square duct

Antimicrobial and antioxidant activities of green synthesized Silver nanoparticles using Ipomoea pescaprae leaf extract

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Vijaya, Department of Chemistry, Kamaraj College, Thoothukudi
Chandra Lekha, Department of Chemistry, Kamaraj College, Thoothukudi

Abstract:--
      The green synthesis method using plant extracts has received much attention recently owing to its eco-friendliness and economically viable nature. The plant Ipomoea pescaprae belonging to the family Convolvulace and used in medicine for several diseases. The silver nanoparticles are synthesised by mixing the aqueous extract of fresh leaves of Ipomoea pescaprae and silver nitrate solution. The green synthesized silver nanoparticles were characterized by UV and FTIR spectroscopy and AFM techniques .The formation of silver nanoparticles was confirmed by the colour change of the sample and a strong UV absorption peak at 426nm. FTIR analysis revealed that the functional groups terpenoids , alkaloids and phenolic groups are responsible for the stabilization of AgNps. The phytochemicals present in the aqueous leaf extract acted as an effective reducing agent .The synthesized nanoparticles was evaluated for antimicrobial activities and antioxidant activities. The results showed good potential source of antimicrobial and antioxidant activities. Further investigation to isolate the pharmacologically active compounds that can be used in the production of novel drugs for various diseases would be promising.

Key words:
      Ipomoea pescaprae, silver nanoparticles, UV, FTIR, AFM, antimicrobial.

Impact of Pesticide on the Growth and Biochemical Content of Seaweeds

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Jebaananthi K, Deparment of Botany, Sarahtucker College (Autonomous), Tirunelveli
Venkataraman Kumar, Research Department of Botany, V.O. Chidambaram College, Thoothukudi

Abstract:--

The effect of Pesticide (monocrotophos) was studied on four economically important seaweeds, Ulva lactuca, Caulerpa scalpelliformis, Padina tetrastromatica, and Gracilaria corticata. The seaweeds were cultured in different concentration of monocrotophos mixed sterilized seawater. After 21 days of culture in the laboratory, the algae were harvested for the estimation of various growth and biochemical parameter like daily growth rate (DGR), chlorophyll, carotenoids, protein, carbohydrate, lipid and phycocolloids (agar and algin). In the present study, the brown seaweed Padina tetrastromatica responded well to pesticide by showing enhanced DGR, biochemical content including that of the phycocolloids (Algin). Rest of the seaweeds also responded positively by exhibiting good growth and biochemical increment but to a lesser extent and that too at certain concentrations only.

Keyword:--

Seaweeds, Pesticide, Pigments, Biochemicals.

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A Brief Survey of Building Extraction Techniques of Remote Sensing Images

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Dr.D.Murugan, Professor, Department of Computer Science and Engineering, anonmaniam Sundarnar University, Tirunelveli, India

Abstract:--
      This paper aims to provide a review of automatic building extraction techniques from remote sensing images. The building extraction technique is used for detecting and separating buildings from other land cover classes. In the past few years, researchers have proposed a number of building extraction methods. This paper commonly divides these methods into four main categories: template matching-based methods, knowledge-based methods, OBIA-based methods, and machine learning-based methods and provide a detailed survey of these methods. This paper also discusses the challenges and demerits of these methods to give a clear idea about these existing approaches. So this survey will be beneficial for the researchers to have a better understanding of this building extraction field.

Keywords
      Remote Sensing, Building Detection, Extraction, Template, Machine Learning

Culture of Oyster Mushroom (Pleurotusostreatus) from the Agro Waste Sugarcane Magesy.

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Lakshmanan.G, Dr. SivanthiAditanar College of Education. Tiruchendur.

Abstract:--
     Mushrooms are a group of macroscopic fungi and belonging to the class Basidimycetes. About 2500 varities of mushrooms are available in the world out of which only 200 species are edible. The oyster mushrooms are highly edible and rich in nutrients such as proteins and vitamins. Mushrooms are cholesterol free diet and good for diabetic patients. Sugarcane megesy is a solid agriculture waste and it contains sucrose and act as excellent substratum for mushroom growth. The present study aimed to discuss on oyster mushroom culture and solid waste management of sugarcane magesy.

Keyword:--
     Basidimycetes, sugarcane magesy, cholesterol and solidwaste management.

Growth, Spectral, Dielectric and Thermal Properties of Potassium Hydrogen Phthalate Crystals in the Presence of Amino Acid Dopants L-Leucine and L-Phenylalanine

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K. Balasubramanian, PG & Research Department of Physics, The M.D.T. Hindu College, Tirunelveli, 627 010, Tamilnadu, India

Abstract:--

Potassium Hydrogen Phthalate crystals doped with amino acid L-Leucine and L-Phenylalanine (0.05mol %) were grown by slow evaporation technique. Structural characterizations of the grown crystals were carried out by powder X-ray diffraction method. It reveals that the grown crystals of undoped and doped KHP crystals are in the orthorhombic structure. There is a slight change in the lattice parameters and volume of the doped crystals. This is may be due to the lattice distortion by doping in the parent compound. The functional groups were identified by Fourier Transform Infrared Spectroscopy. The enhancement of optical transparency in the doped KHP crystal was recorded using a UV-Visible spectrophotometer. Both undoped and doped KHP crystals have their UV cut off around 300 nm. There is no absorption observed in the region from 350-1100 nm for the undoped and doped crystals which makes the materials suitable for the second harmonic generation. The mechanical strength of the grown crystal was estimated by Vickers hardness test. The dielectric constant and dielectric loss has been studied as a function of the frequency of the doped KHP crystals. To identify the thermal stability, purity and crystalline nature of solution grown undoped, L-Leucine and L-Phenylalanine doped KHP crystals; they were subjected to thermal analysis. The TG-DTA results establish the good thermal stability of the material. The second harmonic generation has been confirmed by the Kurtz powder method. The SHG efficiency of undoped KHP crystal was found to be 5.86mJ whereas the LL and LP doped KHP (0.05 mol %) crystal were estimated as 8.23mJ and 6.72mJ when compared to that of the standard SHG material KDP. It was observed to be greater than that of KDP. The photoluminescence study also observed. The high-intensity peaks are observed for undoped, L-Leucine and L-Phenylalanine doped KHP crystals. It confirms that they emit green fluorescence, which suggests that they are excellent for nonlinear optical applications.

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Plant Nutrition and Organic Farming in Tomato Plant

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Aishwarya, B Sc Chemistry,A.P.C Mahalakshmi College, Thoothukudi.

M.Anushiya, B Sc Chemistry,A.P.C Mahalakshmi College, Thoothukudi.

B.Sahila Banu, B Sc Chemistry,A.P.C Mahalakshmi College, Thoothukudi.

Abstract:--

Tomato plants have a variety of uses that include more than just harvesting the ripe fruit to eat. Grow these useful plants in your garden to take advantage of all their helpful properties.

In this report, growing plants in organic farming is much better than conventional farming. It is proved by some of the experiments. Magnesium serves the function of many enzymatic processes. K fertilization through subsurface drip irrigation was beneficial. The conventional hydroponic treatment has significantly high field.

Organic farming can provide quality food without affecting soil, environment etc. Plant nutrition will also positively contribute to tomato flavor and appearance. Nutrient of plant with Mg had a synergistic effect on the nutrient status of plant. K fertilization had a significant improvement in fruit yield.

Key words:

vermicompost, k fertilization, Fertigation, conventional fertilizers.

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Dual Fuel Six Stroke Engine with EGR

T.Suresh, Kumaraguru College of Technology

Abstract:--
      In today's world, the usage of Internal combustion engines are inevitable. Particularly the diesel engines find their importance more than the petrol engines due to their operating cost. But diesel engines have their demerits in the area of exhaust and power loss. Necessary steps have to be taken in order effectively use the fuel available. In this technical presentation we have discussed about the utilization of six stroke engines which runs on dual fuel. The six stroke engine's principle resembles the double stage compressor. By this way effective compression is done and the need for turbocharger is completely neglected. We have also considered cylinder's position in six stroke engine. As the lubrication and cooling system needs special attention in case of opposing type cylinders, we have formulated a better and simple arrangement in which same power is produced eradicating the lubrication problems. Also the pollution (NOx) emitted by the diesel engines is also taken into account. We found the solution in the form of dual fuel and exhaust gas recirculation system. The combusting temperature of the diesel engine is above 2000 Fahrenheit and this is the prime reason for NOx emission. So an alternative fuel which can be combusted below the level of diesel should be used. Moreover the availability and production cost must be taken into consideration. We found ethanol as a better alternative for diesel. The cold starting of the engine is made easier using glow plug which is used to preheat the charge coming inside the combustion chamber.

Generalization of Pairwise Fuzzy Connectedness

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K.Bageerathi, Department of Mathematics, Aditanar College of Arts and Science, Tiruchendur, Tamilnadu

Abstract:--
　　　Focus of this paper is to introduce the concept of Pairwise fuzzy $\mathfrak{C}$ -connected, Pairwise fuzzy $\mathfrak{C}$ - super connected, Pairwise fuzzy $\mathfrak{C}$ - strongly connected and Pairwise fuzzy $\mathfrak{C}$ - extremally disconnected in fuzzy bitopological space where $\mathfrak{C} : [0,1] \circledR [0,1]$ is arbitrary complement function. Several examples are given to illustrate the concepts introduced in this paper.

Synthesis and investigation of certain polyesters containing diazenyl phenolic acid moiety

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J.Sidharthan, Associate Professor, Department of Chemistry, VOC college, Thoothukudi, India.
J.Tamizh selvi, Associate Professor, Department of Chemistry, VOC college, Thoothukudi, India.

Abstract:--
　　A large of azo compounds has been synthesized because of its potential use as dyes in fabrics. In the present work, we have synthesized some aromatic polyesters containing azo group in their main chain. The common monomer (4-((2-hydroxy naphthalene-1yl)diazenyl)benzoyl chloride) was synthesized by the diazotization reaction between p-Toluidene and β-naphthol and then the –CH3 group of Toluidene was converted to –COOH which was then converted into –COCl by the addition of thionyl chloride. The common monomer was then allowed to react with succinyl chloride, terephthaloyl chloride and resorcinol. By the addition of triethyl amine, three copolyesters were obtained and another copolymer was synthesized by self polymerization. All the four polymers were characterized by IR studies. Their thermal behaviour was analysed using DSC and the polymers showed good thermal behaviour. Azo compounds were found to have some antimicrobial properties which were tested against Streptococcus fecalis, streptococcus pyogens, Pseudomonos aeruginosa and Salmonella paratyphi and the polymers showed good result.

Keyword:--
　　Diazenyl phenolic acid, azo dye synthesis, Toluidene, β-naphthol, Diazotisation.

Analysing the Scientific Reasoning behind the Proverb on Iluppai Flower (MADHUCA SP.,) And Its Role in Science and Development

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Karunai Selvi.B, Assistant Professor of Botany, V.V.Vanniaperumal College for Women,Virudhunagar,Tamil Nadu, India

Abstract:--
　　　　Proverbs are considered as non-written documents that are deciphered from generation to generation over years verbally from our ancestors. These proverbs not only echo the social, cultural, political and economic values of folklore but also helpful for the development of science and research forever. In this regard, the commonly used proverb " ஆலையில்லா ஊருக்கு இலுப்பைப்பூ சர்க்கரை" (the flower of the olive tree, Bassia, are regarded as sugar in a place without a sugar cane mill) is taken for analysis to know more about the flower of iluppai in science and development of research . Even though each and every part of this tree has economic value, its yellow flower has some unique properties that have been attracted by many people from ancient period to the present day. This flower has been the major source of energy and sustenance for the life of many people in various parts of India.In the past, our ancestors made iluppai thottam (garden) for the conservation of iluppai and worshipped as "sthalavirutcha" as this plant has more economical value. Hence, the present study is designed to explore the scientific truth behind the above- said proverb and a questionnaire was prepared and distributed among the student community to create awareness and this kind of activity would be helpful for the conservation of iluppai as this plant is native to India .

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A Walk into Human Reality

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Dr. Boban Joseph, Assit. Professor, School of Social Work, Marian College (Autonomous),Peermade P.O, Kuttikkanam.

Abstract:--
　　　The work is the perspectives of the author into the human mind and emotions through analysing with case vignettes from real world. The reality, which is an essential aspect in human behaviour pattern, related to activities of accepting facts.

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On Mean-Anti Magic Labeling of Graphs

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A. Nagarajan, Associate Professor of Mathematics, V.O.Chidambaram College, Thoothukudi.

B. Sivaranjani, M. Phil Scholar, A.P.C. Mahalaxmi College for Women, Thoothukudi.

Abstract:--

Hartsfield and Ringel introduced the concept of Anti-Magic Labeling which is an assignment of distinct values to different vertices in a graph in such a way that when taking the sums of the labels, all the sums will be having different constants. Let G be a (p, q) graph and let $f: V(G) \longrightarrow \{0, 1, \ldots, q\}$ be an injection then G is said to have a mean labeling if for each edge uv, there exists an induced mapping $f^*: E(G) \longrightarrow \{0, 1, \ldots, q\}$ defined by

$$f^*(uv) = \begin{cases} \dfrac{f(u) + f(v)}{2} & if\ f(u) + f(v)\ is\ even \\ \dfrac{f(u) + f(v) + 1}{2} & if\ f(u) + f(v)\ is\ odd \end{cases}$$

K. Ameenal Bibi and T. Ranjani have extended the concept of mean labeling to mean anti-magic labeling. A graph G = (V, E) be a simple, finite connected graph with order p and size q. G is said to admit anti-magic labeling if there exists a bijection $f: E(G) \longrightarrow \{0, 1, \ldots, q\}$ such that for each $u, v \in V(G), \sum f(e)$ are distinct for all $e = uv \in E(G)$. In this paper, we investigate the results for some special graphs.

Keyword:--

Mean labeling, anti-magic labeling, mean anti-magic labeling.

Product on Anti Fuzzy Graphs

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A. Nagarajan, Associate Professor of Mathematics,V.O.Chidambaram College, Thoothukudi.

U.Syedul Fahima, M. Phil Scholar, A.P.C. Mahalaxmi College for Women, Thoothukudi

Abstract:--

The anti fuzzy graph is introduced by M.S.Sunitha, A.Vijayakumar, R.Muthuraj and A.Sasirekha. A new anti fuzzy graph can be obtained from two given anti fuzzy graphs using the operations, cartesian product, composition, tensor product and normal product. In this paper, we study about the degree of a vertex in anti fuzzy graphs which are obtained from two given anti fuzzy graph using the operations cartesian product, composition, tensor product and normal product of two anti fuzzy graphs.

Keywords

Anti Fuzzy Graph, Cartesian product, Composition, Tensor Product, Normal Product.

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Role of Sentiment Analysis Using Deep Learning

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Dr. HerenChellam G, Assistant Professor of Computer Science, Rani Anna Govt. College for Women,Tirunelveli

Abstract:--
Sentiment Analysis is a recent topic in the area of Natural Language Processing. Sentiment Analysis analyses the problem of forums, discussions, likes, comments, reviews uploaded on micro blogging platforms regarding about the views that they have an idea about a person, product, or event. This paper identifies the role of sentiment analysis with deep learning to classify the polarity of given information or the expressed view is positive, negative or neutral. Deep Learning is the up-to-date term in the area of machine learning. Machine Learning is a process to construct intelligent systems. Deep Learning is a method to utilize machine learning. The main goal of this paper is to find out the recent updates that relate to text classification of sentiment analysis. Sentiment Analysis is implemented in different approaches of deep level representation and also to find out the approach that generate output with high accurate results.

Keyword:--
Deep Learning, Machine Learning, Natural Language Processing, Sentiment Analysis.

Even Decomposition of Graphs

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A.Nagarajan, Associate Professor of Mathematics,PG & Research Department of Mathematics, V.O.Chidambaram College, Thoothukudi.

Abstract:--

A decomposition $(G_1, G_2, G_3, ..., G_n)$ of G is said to be a Linear decomposition or Arithmetic Decomposition if each G_i is connected and $|E(Gi)| = a+(i-1)d$, for all i = 1, 2, 3, ...,n and a, d $\in Z^+$. E.Ebin Raja Merly introduce the concept of Even decomposition of a connected graph and investigate their variations. The Arithmetic Decomposition with a = 2 and d = 2 is known as Even Decomposition (ED). Since the number of edges of each subgraph of G is even, we denote the ED as $(G_2, G_4, G_6, ..., G_{2n})$. In this paper, we study the Even Decomposition (ED) of special class of graphs namely $C_n \wedge K_2$, C_n^+, W_{n+1}, $K_{1,n}^+$ and G_n.

Keyword:--

Continuous Monotonic Decomposition, Arithmetic Decomposition, Arithmetic Odd Decomosition, Even Decomposition.

Structure Theorem for B(1,2) $\bar{s}$ Near Subtraction Semigroups

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S.Usha Devi, Assistant Professor of Mathematics,Sri Parasakthi College for Women, Courtallam

Abstract:--

In this paper, we introduce the concept of B(1,2) $\bar{S}$ near subtraction semigroups and give the structure theorem for the same. By X we mean a zero-symmetric near subtraction semigroups. Define X to be a $P_k(P_k{'})$ near subtraction semigroup if $a^k X = aXa\left(Xa^k = aXa\right)$ for all $a \in X$ and a near subtraction semi groups X is said to be a $P_k(m,n)(P_k{'}(m,n))$ near subtraction semigroups if $a^k X = a^m X a^n$ ($X a^k = a^m X a^n$) for all $a \in X$. Motivated by these concept we introduce B(1,2) near subtraction semigroups and their generalization and similarities. A near subtraction semigroups X is said to be a B(1,2) near subtraction semigroups if $(a)_r X = X(a)_l^2$, $\forall a \in X$, Where $(a)_r((a)_l)$ is the right (left) X-subalgebra of near subtraction semigroups X generated by 'a'

Product Review Sentiment Analysis – A Survey

V. Uma Devi, Research Scholar, Sri.Sarada for College for Women, MS University,Tirunelveli
Dr. Vallinayagi V, Associate Professor & Head, Department of Computer Science, Sri.Sarada College for Women,Tirunelveli

Abstract:--
   Now a day's more and more people are buying products online. In order to enhance customer shopping experience, it has become a common practice for online merchants to enable their customers to write reviews on products that they have purchased. As a result, the number of reviews that a product receives grows rapidly. Manual analysis of customer opinions is very time consuming due to the multitude of contributions. So the sentiment analysis is use to extract, aggregate and analysed the opinions on product from discussion forums. Sentiment analysis has gained much attention in recent years. Sentiment analysis is a kind of text classification that classifies texts based on the sentimental orientation (SO) of opinions they contain. Sentiment analysis of product reviews has recently become very popular in text mining and computational linguistics research. In the field of sentiment analysis there are many algorithms exist to tackle Natural Language Processing problems. Each algorithm is used by several applications. In this paper i have revised the various sentiment analysis based neural network methods. Data used in this study are online product reviews collected from Amazon.com. Experiments for neural network methods which are performed with promising outcomes..

Keyword:--
   Sentiment Analysis, NLP, Opinion mining , Classification , Support Vector Machine and Navie Bayes.

Social Media: A Strong Marketing Tool

Vaishnavi S. Joshi, KLS Gogte College of Commerce, Belagavi

Abstract:--

Social Media as we know it is no longer just a source of entertainment. Along with providing the much needed recreational time to millions of people, it has grown on to become a significant source and one stop shop for all informational needs of all its users: corporate leaders, entrepreneurs, and consumers alike.

Social Media is emerging as a strong and integral tool in shopping thereby outgrowing its own image of catering to individual interests to the much wider scope of commercialisation.

It not only enhances buyer experience but also aids the seller i.e. the companies by providing them with a strong platform to showcase their wares and services and in the process lay a strong foundation of relationship with its target audience and maintain it.

Social media, though it's various platforms like Facebook, Twitter, Instagram, etc. gives a voice to each entity thereby enabling them to identify themselves giving rise to brand awareness, brand consciousness and eventually brand loyalty. Social media provides that slight nudge required from procrastination to purchase thereby aiding the businesses to keep their cash registers ringing.

Failure Analysis of A Steam Pipe Used In Rotary Kiln under High Temperature Conditional Circumstances

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T.Gunasekaran, Assistant Professor, Department of Mechanical Engineering, Karpagam Institute of Technology, Coimbatore, TamilNadu.
SenthilKumar.K.R, Assistant Professor, Department of Mechanical Engineering, Karpagam Institute of Technology, Coimbatore, TamilNadu.

Abstract:--
The high temperature Steam Pipes used in Rotary kiln is to activate charcoal in activated carbon industry. High temperature Steam is the heart of activation process which is continuously and uniformly distributed in the activation zone. Aim of this study is to analyze the fracture produced in the steam pipe in heat affected zone during the process. Analysis was performed in two types of pipes such as pipes having straight holes and without holes using finite element analysis method. Total deformation, equivalent stress and temperature distributions were determined to analyze the failure.

Keywords:
Rotary Kiln, Failure Analysis, Steam Pipe, Deformation, Equivalent Stress.

GST and Indian Economy

Vijeta Vishwanath. Shet, Gogte College of Commerce (M.com), Belagavi, Karnataka.

Abstract:--

GST also known as Goods and service tax is defined as the giant indirect tax structure designed to support and enhances the economic growth of the country. More than 150 countries have implemented GST so far. However, the idea of GST in India was first raised by former Prime Minister of India Atal Bihari Vajpayee and his council. After being subject to months of dilly-dallying, late on August 3, 2016, the constitution (122nd Amendment) bill was passed by the Rajya Sabha. The much awaited passing of the bill immediately hailed as historic, landmark, game-changer and giant leap in the path of ongoing economic reforms in the country. The government's ability to steer the constitution amendment through choppy political waters was seen as a test of its commitment to economic reforms. The paper highlights the background, structure, benefits of GST, importance, impact on various sectors and Implementation of Goods and Service Tax in India. Finally, the paper examines and draws out a conclusion.

Risk Prioritisation of Failure Modes in On-Shore Drilling Equipments

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Mr. G. Easvaramoorthy, Assistant Professor & Head , Department of Mechanical Engineering, Dr Sivanthi Aditanar College of Engineering, Tiruchendur

Abstract:--
　　　Risk assessment of industrial systems is of greater importance when the systems deal with high energy materials, chemicals and products. In an onshore drilling rig, any safety problem raised is very costly and devastating. In this work, an onshore drilling rig is assessed for safety, qualitatively by applying failure mode and effect analysis technique. Failure modes, its root causes and the end effects are identified. Risk priority numbers are calculated to identify the risk level of each potential failure mode and ranked. Around 100 failure modes are identified from the various equipments. Failure modes were ranked and prioritized for risk. 28 failure modes were identified to be critical with an RPN value above the average and needed to be attended for safety enhancement. Suggestions have been provided for necessary corrective action to ensure a safe, reliable and economic process. The implemented FMEA study will aid, decreasing failures noticeably in all the processes and operations performed.

3D Modelling from Airborne LiDAR Point Cloud Data

L.R.P.Aravind, Thiagarajar College of Engineering, Madurai.

Abstract:--

LiDAR (Light Detection and Ranging) is a surveying method that measures distance to a target by illuminating the target with pulsed laser light and measuring the reflected pulses with a sensor. Airborne LiDAR scanners are becoming one of the most efficient methods to record geographical information in three dimensions. The 3D point cloud data collected by airborne LiDAR scanners consists of densely spaced points representing XYZ dimensions of the objects that are being surveyed. The workflow of this paper is as follows: Euclidean segmentation has been applied to the input point cloud dataset to divide it into different clusters. Then the equivalent 3D mesh representation of the segmented clusters are computed using greedy projection triangulation technique. Finally, from the 3D meshes obtained in the previous step, 3D models have been derived using poisson surface reconstruction method to develop accurate and realistic 3D models of the earth surface objects.

Strong Efficient Edge Domination number of some Corona related Graphs

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N.Meena, Assistant Professor, , P.G. & Research Department of Mathematics, The M.D.T. Hindu College, Tirunelveli.

Abstract:--

Let $G = (V, E)$ be a simple graph. A subset S of E(G) is a strong (weak) efficient edge dominating set of G if $\left| N_s[e] \cap S \right| = 1$ for all $e \in$ E(G) $\left[\left| N_w[e] \cap S \right| = 1 \right.$ for all $e \in$ E(G)] where N_s(e) ={f / f $\in$ E(G) & deg f $\geq$ deg e}[N_w (e) ={f / f $\in$ E(G) & deg f $\leq$ deg e}] and N_s[e]=N_s(e) $\cup$\{e\}[N_w[e] = N_w (e) $\cup$\{e\}]. The minimum cardinality of a strong efficient edge dominating set of G (weak efficient edge dominating set of G) is called a strong efficient edge domination number of G and is denoted by $\gamma'_{se}(G)$ [$\gamma'_{we}(G)$]. In this paper, the strong efficient edge domination number of some corona related graphs is studied.

Keywords

Domination, edge domination, strong edge domination, efficient edge domination, strong efficient edge domination.

Design and Manufacture of B.O.D Agricultural Incubator

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Abstract:--
  Conventional incubators have individual controllers for individual parameters which greatly reduces the time of response and time for taking responsive action as it has to pass through the processing of both the controllers separately. It has a conventional 7-segment display, which is majorly outdated. There is no flexibility for control operation because of the use of separate controllers and is also difficult to program as it consists of only three key systems. This paper mainly aims to overcome all these shortcomings and manufacture a more efficient product by incorporating high programming flexibility, an efficient controller interface which is capable of interfacing all the parameters by itself and not use multiple controllers and to update the display and control mechanism by implementing touchscreen technology.

Keyword:--
  Efficient controller interface, Parameter interfacing

Pharmacological and Photocatalytic degradation Studies of Synthesized Silver nanoparticles using Triumfetta rotundifolia Plant extract

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S. Mary Jelastin Kala, Department of Chemistry, St. Xavier's College, Tirunelveli, Tamil Nadu, India

Abstract:--

The scientific research introduced many new methods for the synthesis of metallic nanoparticles. Green synthesis technique is non-toxic, eco-friendly and low cost method. The green synthesized silver nanoparticles are characterized by using UV–VIS spectroscopy, SEM, XRD, and DLS method. The size and extract dependent catalytic activity of the green synthesized silver nanoparticles is established in the degradation of organic dyes. The Pharmacological study of synthesized silver nanoparticles is also carried out.

Keyword:--

Silver nanoparticles, Degradation of dyes

Evaluation of Hardness Numbers of Dissimilar Welded Joints by Friction Welding Process

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TTM.Kannan, Associate Professor, Department of Mechanical Engineering, PRIST University, Thanjavur ,India.
M.Pradeep, Department of Mechanical Engineering, PRIST University, Thanjavur,India.

Abstract:--
Friction welding is a solid state welding which is used to weld dissimilar joints without much defect. In this experimental work which describes the dissimilar joints of EN 24 and ETP copper cylindrical rods with difference weld parameters for predicting higher hardness values. Dissimilar joints of EN 24 steel and ETP copper weld rounds play an important role in manufacturing of electrical wire cable, automotive components and bimetallic parts. In this work friction pressure, upset pressure and friction time are the input parameter of friction welding process and hardness values are response factor. Nominal is the best is main concept of predicting better weld from all joint.

Key words:
Friction welding, Welding parameters , EN 24 - ETP copper ,Hardness Testing.

Fabrication of Mechanical Element by Additive Manufacturing by Using 3D Printer

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S.Boopathy, Associate Professor, Department of Mechanical Engineering, PRIST University, Thanjavur,India.

Abstract:--
     The new technology named additive manufacturing (AM) which significance in the manufacturing sector due to its capacity to define new innovating product with the improvements of design, production and logistical issues related to a definite product. This new area is operative in industrial sector but not easy to apply this technology to all types of manufacturing system. Additive manufacturing is a 3D printing or rapid prototyping, the technology generally refers to gradual addition of material in a layer by layer while producing the three dimensional parts. This special issue leads to put together in research and development in AM, specially related to new manufacturing process or to alternate feedstock material and product. Polymer and metal – based raw materials and have been widely investigated in additive manufacturing process. In this experimental work, Conventional bolt, nut and washer are produced by 3D printer by using software. The bolt nut and Washer was designed by integrated simply 3D software and fabricated by 3D Printer.

Keyword:--
     Additive manufacturing, 3D printing, Fasteners, Modeling, Fabrication.

Classification of high-resolution images with Local Binary Pattern and Convolutional Neural Network

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Dr. S.Rajesh, Associate Professor, Department of IT,Mepco Schlenk Engineering College,Sivakasi, India

Abstract:--
  In high-resolution satellite images, it is very important to classify the image accurately and classify each area of the image distinctly. However, it is not easy to identify complex patterns. To overcome this difficulty deep learning method is used. Deep learning method is to automatically extract many features without any human intervention. To further improve the classification accuracy through deep learning, the deep features are combined with texture features. We propose a deep learning method to accurately classify the remotely sensed images. The proposed method is designed with a combination of a deep feature learning strategy and texture-based classification. Here, the texture features are extracted using Local Binary Pattern (LBP). Experimental results show that the classification accuracy is improved when texture features are combined with deep learning approach.

Keywords—
Convolutional neural network (CNN); deep learning; high-resolution image; image classification; Local binary pattern (LBP)

A Study on Consumer's Awareness towards Online Shopping

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L.Prassana, A.P.C Mahalaxmi College For Women

Abstract:--

Online shopping (also called online buying behaviour and Internet shopping or buying behaviour) refers to the process of purchasing products or services via the Internet. E-commerce has been growing very fast because of many advantages associated with buying on internet because of lower transaction and search cost as compared to other types of shopping. Through online shopping consumers can buy faster, more alternatives and can order product and services with comparative lowest price.

Internet shopping in India is increasing day- by- day and the popularity is even increasing. The internet has changed the way people to shop. Earlier it was just going to market or the main area of the city to shop. After the dot com boom and the rapid rise of the use of the internet, people can now shop online without leaving their comfort zone from their home. Not only internet is used for communication, but it is used for varied purpose like reading news, education, entertainment and for shopping on the internet make consumers more convenient purchase product. Thus this study shows how consumer are aware towards using of online shopping and how individual are aware to make decision t spend for available resources money, time and effort on consumption rlated items.

A study on Shopping Mall Customer Decision Making Style: a special reference to Students of Arts Colleges in Thoothukudi Corporation.

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S. Julian Daniel, Research Scholar, Research Department of Commerce, St. Xavier's Collage, Palayamkottai.

Abstract:--
     The modern approach of marketing deals with the identification and satisfaction of the customers' need and wants in addition to that of establishing a long term relationship with customers, suppliers, intermediaries and all other stakeholders in the marketing process also get emphasized. The entire focus of relationship marketing is only on the future prospects of the business. Many factors affect the decision regarding the purchase of goods and services in the shopping malls. This study attempts to explore the purchase decision making styles of the Arts College students of Thoothkudi Corporation in shopping malls. The Arts Colleges situated inside the corporation limit are considered for the study. The students are classified into three strata namely arts, science and management and 90 students from the three strata derived as a sample from Arts Colleges in Thoothukudi Corporation. On the basis of consumers' characteristic approach to the purchase, a model of Sporles and Kendall in 1986 who developed a Consumer Style Inventory (CSI). This model has been taken for the study and the appropriate changes in the factors and the words were changed to match the local conditions. The study reveals that more Recreational customers, price conscious customers and brand conscious customers and less impulsive, quality conscious, confused and fashioned customers are in the students of Arts colleges in Thoothukudi Corporation .

Keyword:--
     Shopping Malls, Consumer Style Inventory, Customer Decision Making Style.

Amelioration of Fluoride Induced Hepatotoxicity in Albino Rat by Probitic Bacteria Lactobacillus Rhamnosus

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Dr.A.S.Santhalakshmi, Assistant Professor in Zoology, Sri KGS Arts College, Srivaikuntam.

Abstract:--
     The aim of this experiment was to investigate the effect of sodium fluoride (NaF) on bilirubin, liver enzymes (SGPT and SGOT) and liver morphology and its amelioration by Probitic bacteria Lactobacillus rhamnosus. Twelve weeks old, albino rats (Rattus norvegicus) with average weight of 120g were randomly distributed into three groups of four animals each. The first group was kept as control. The second group was given 5ml drinking water with 0.151mg NaF /kg- bw/day and the third group was fed the same dose of NaF and 5ml water with Probitic bacteria Lactobacillus rhamnosus. After 60 days of experimental period Bilirubin, SGOT and SGPT were significantly ($P<0.01$) increased in the NaF treated rat. Histological examination of the liver revealed focal necrosis, liver congestion and vacuolar degeneration. However, rats treated with Lactobacillus rhamnosus showed significant improvement in all these three parameters and in the liver morphology. From the study, it could be concluded that fluoridated water caused liver damage and these effects could be ameliorated by Lactobacillus rhamnosus.

Key words:
     Rat, NaF, Liver Toxicity, Lactobacillus rhamnosus, Amelioration.

Task Optimization using MAX-MIN, MIN-MIN and Priority in Cloud Computing

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Abstract:--
Considering the developing utilization of distributed computing and the requirement for ideal utilization of resources in the cloud, and regard for clients that compensation for administrations they utilize dependent on their compensation as-you-go premise, there ought to be a snappier route for clients to diminish the client's holding up time and task's holding up time. The principle reason for this paper is to give an ideal calculation utilizing the upsides of the two conventional Min-Min and Max-Min algorithms. The other point that follows in this algorithm (TOMMP) is the precedence of the tasks. There are tons of scheduling algorithms on the planet today, yet the precedence given to the tasks has been ignored and disregarded in many algorithms. In this algorithm, precedence is firstly chose for tasks dependent on a prioritization algorithm, and afterward utilizing the middle number to choose which one of the Min-Min or Max-Min algorithms is to be utilized. It ought to be noticed that followed by TOMMP algorithms, its holding up time is lower than correlations of the contrasted algorithms and is appeared with be superior to the equivalent algorithms.

Keyword:--
Ideal scheduling algorithm, planning algorithm, cloud planning algorithm, Min-Min algorithm, Max-Min algorithm, cloud computing

Fuel from waste plastics: A review

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Abstract:--

Plastics have become an indispensible part of our today's life, because of specific properties such as light weight, durability; faster rate of production of plastic plays an important role in both domestic and industrial applications. At the same time, due to plastic environmental challenges are arising by means of high quantity and its disposal problem. Waste plastic recycling, regeneration and its utilization have become a highly needed of research at home and nation. Waste plastic pyrolysis oil as an alternative fuel for running the engine. The long term aim of energy security and, coupled with the environmental concerns of problematic waste accumulation, is addressed via the proposed waste-to-fuel technology. The present review paper is focused on the conversion of waste plastic into low-emissive fuel by two process namely vacuum and catalytic cracking.

Keywords:

Waste plastics, Pyrolysis, Hydrocarbon, Petrol, diesel.

Renewable Power Generating System Using Highway Vertical Wind Turbine and PV Cells

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M.Ravichandhran, Assitant peofessor/EEE, Selvam college of Technology, Namakkal , India.

Abstract:--
This paper depicts the displaying of two rising electricity frameworks dependent on photovoltaic and wind control. The examination introduces an assessment of joined sun powered and twist framework for highway energy prerequisites, for example, highway lighting, traffic lights, LED displays and so on.
And also, cost optimization and feasibility of the combined system were evaluated. As indicated by the after effect of the enhancement, ideal quantities of solar panels, vertical wind turbines, and batteries for putting away the vitality can be introduced.

Keyword:--
Highway vertical wind turbine, PV solar cell, converts, Inverter.

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Application of Data Mining in Medical Fields

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Abstract:--
The major objective of Data mining , relatively new field of research is to acquire knowledge from large amounts of data. A large amount of data is becoming available due to regulations and due to the availability of computers in medical and health care areas. On the one hand, the expectations with the practitioners is to use all this data in their work ,but at the same time, such a large amount of data cannot be processed by humans in a short time to make diagnosis, prognosis and treatment schedules. The data mining tools in medical and health care applications is evaluated in our research work.

Keyword:--
Objective, Acquire knowledge, large amount of data, Evaluates tools

Rural Health and Health Status of Tamilnadu with Special reference to Tirunelveli District

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Abstract:--
Good health is more important for all human beings. The health factor directly contributes the nation growth and productivity and human resource development in nationwide. The whole nation growth is based on the health and its infrastructure system. In India the health care system is administered by the concern state, controlled and governed by the central government. India has a hierarchy of strong health care system but there are differences in availability of resources and utilization between rural and urban areas as well as between public and private health care. In India the region wise, district wise and population wise a vast different. The availability of resources is not sufficient for the current situation. The necessity of health need is increasing day by day. The technological impact one side more over the innovation in equipment, medicine and methods are the challenging factors in the health system. Another critical factor like increasing population, climate changing, natural calamities affecting the enter health system net work in the country. The migrating population from village to developing city is a big challenge in the planning and executing the health plans. The Government is taking a crucial action for facing these challenges and achieving better health to the people. For this context Government of Tamil Nadu has engaging more resources on health and nutrition, strengthening health infrastructure to reach health to everyone. In the Sate Tamilnadu quondam of achievements has been made in last 10 years by reflecting health indicators shows birth, infant mortality rate and maternal mortality rate. The main objective of this study is to assess the performance of public healthcare sector in rural Tamil Nadu and a special reference to Tirunelveli District , to know the key health indicators and to know the health sector vision 2023 and to suggest ways and means to improve the public healthcare sector.

Keyword:--
Primary Health Center, Health Indicator, Healthcare Sector, Health Status, Rural Health

Mixture of Potato, Sapodilla, Kiwi Peels and Coir as A Substrate for the Production of Cellulases Using Trichoderma Atroviride Atcc® 28043™ By A Solid State Cyclic Fed-Batch Strategy and Evaluation of Its Saccharification Efficiency

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Navnit Kumar Ramamoorthy, Biofuel Laboratory, Centre for Biotechnology, Anna University, Chennai
Renganathan Sahadeven, Professor, Biofuel Laboratory, Centre for Biotechnology, Anna University, Chennai

Abstract:--
The second generation Biofuel production process of Lignocellulosic biomass to ethanol conversion is gaining rapid interest due to the accelerated depletion of fossil fuels. The work was performed with an aim to produce in-house cellulases and reduce the major cost incurred (around 40% of the total fuel production cost) towards commercial cellulase procurement. A novel mixture containing equal volumes of the peels of potato, Sapodilla, Kiwi and coir was subjected to compositional analysis by the standard NREL procedure. The mixture was pre-treated using 15% (v/v) ammonia which showed around 70% lignin removal. In-house Cellulases were produced by an innovative fixed volume solid state cyclic fed-batch fermentation from the above stated mixture using Trichoderma atroviride ATCC 28043. The in-house cellulases were concentrated 15 folds using a Tangential Flow Filtration unit and showed a percentage saccharification of 45% and percentage yield saccharification of 94.6% in an optimized saccharification process performed within a Continuous stirred-tank reactor. The percentage yield of saccharification was 4% lesser than commercial cellulases while the cost for production of in-house cellulases was 15 times lesser than the market cost of commercially available cellulases.

Keywords:
Pre-treatment, Fermentation, Saccharification, Tangential Flow Filtration

Development of Highly Soluble Chalcone Based Modifiable Novel Diazocompounds

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X. Vinisha, Communicating Author, Associate Professor, Department of Chemistry, V.O.Chidambaram College, Thoothukudi, Tamilnadu, India.

Abstract:--

In an effort to develop compounds containing chalcone and quinoline moieties, which are soluble in water at neutral pH, that enables it widely available in the body fluids to exhibit dramatic antimicrobial and antioxidant activity, two organic compounds namely (1-Dibenzalacetone2-quinoline)acetate(1D2QA) and (2-Dibenzalacetone2-quinoline)acetate (2D2QA) were synthesized. These compounds have diazo, chalcone, ester and quinolone moieties which on their own have proved antimicrobial and antioxidant properties. As precusrsors two chalcones were prepared by Claisen-Schmidt condensation. Esterification of bromoacetyl chloride using triethylamine in CHCl3, followed by etherification with 4-hydroxyquinoline using K2CO3 in dry DMF were carried out to synthesis of 1D2QA and 2D2QA. At this stage instead of 4-hydroxyquinoline, some other phenolic, or amino compound with desirable quality can be introduced; hence these compounds are modifiable. They (1D2QA and 2D2QA) are characterized by solubility with various solvents ,UV, FTIR, and CV. The compounds are more soluble than most chalcones due to the presence of ether linkage and quinolinic nitrogen. Both the synthezied compounds were screened for their antimicrobial and antioxidant activity.It was found that compounds which contain chalcone and ether linkage of quinolinic moiety have acted as active antimicrobial agents. Further the selected compound 1D2QA showed a good free radical scavenging ability, which indicates that they can emerge as candidates for anticancer drugs.

Key Words :

Diazo, Chalcone,Quinoline,Claisen-Schmidt Condensation, Antibacterial, Antioxidant.

Awareness and attitudes of consumers in buying health drinks - A study with special reference to horlicks.

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Abstract:--

Health drinks have emerged as the most profitable and growing segment of the overall soft drinks industry in the World. Unlike carbonated drinks, whose sales are declining, the sales of health drinks have been growing since sometime. When compared to the other food supplements, health drinks stands the top most of any other in this world. More than food supplements consumers prefer health drinks. This is because, the food supplements have side effects and on the other side, there is no such kind in the increase of the health. But the health drinks are of good taste and also on the health constraints, the increase of the health drinks are realized very much after a constant regular use of the health drinks (Kalakumari, 2013)1This paper focuses to find out the attitudes of consumers in buying health drinks towards Horlicks. The sample size of the study is 110 respondents from Thoothukudi district. The study quantitatively analyses the consumer's buying behaviour, attitudes of consumers in buying health drinks- Horlicks using primary data. Appropriate findings and suggestions are given in the paper.

Keyword:--

Attitudes; Buying Behavior; preference -Horlicks; HFD; Consumer.

An Overeview of Goods and Service Tax

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S. vedhavalli, Assistant Professor of commerce, A.P.C. Mahalaxmi college for women, Thoothukudi.

K. Suganya Devi, B.Com, A.P.C. Mahalaxmi college for women, Thoothukudi.

Abstract:--
      Goods and service Tax, a significant breakthrough and the next logical step towards a comprehensive Indirect tax reform in India. This paper gives an overview of GST and further discusses how the mechanism reduces the tax burden and other cascading effects. Brief description is given on the history of tax, GST background, introduction, salient features and illustration of reducing tax burden. Goods and service Tax system subsumes various taxes and avoids the problem of multiple or double taxation and other indirect taxes having cascading effect thereby reducing the burden of taxes. GST in India is expected to be a destination based consumption based levy. GST stands for "Goods and Services Tax", and is proposed to be a comprehensive indirect tax levy on manufacture, sale and consumption of goods as well as services at the national level. It is a taxation system where there is a single tax in the economy for goods and services. Its main objective is to consolidate all indirect tax levies into a single tax, except customs (excluding SAD) replacing multiple tax levies, overcoming the limitations of existing indirect tax structure, and creating efficiencies in tax administration.

Deep Learning Techniques for Internet of Things (IoT) - A Survey

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Dr.V.Vasudevan, Senior Professor, Department of Information and Technology, KARE, Krishnan koil, Tamilnadu

Abstract:--
      Recent advancements in Internet of Things (IoT) have emerged to exploit in many real world applications. Deep learning (DL) is gaining importance due to its incomparable analytics results and recommendations. The major challenge of IoT devices is availability of limited resource, which opens door for many researches on smart data processing and resource allocation. In this study, we provide an overview of DL techniques exploited for IoT domain. The study focuses on resource allocation and workload management for IoT data using DL techniques. We summarize recent researches that leveraged DL techniques in IoT domain. This survey covers IoT devices integrated with DL techniques for smart data process and resource allocation. We also study DL techniques incorporated on edge computing and cloud computing data centers for IoT applications.

Keyword:--
      Internet of Things, Deep Learning, Edge Computing, Resource allocation, Workload Management

Synthesis and Characteristics features of certain Dizenyl and Chalcone Polymers

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Abstract:--

Chalcone's and Dizenyl are the polymer compound consists of an aromatic ring structure. Both the polymers derevative are synthesis by Claisen schmit Condensation. Chalcones are naturally found in edible plants it may be natural or synthetic, wheere Dizenyl compounds are prepared by Synthetic process. Her in this report the synthesis and the characteristic features like UV, IR and NMR of Chalcone and Dizenyl polymer of different derevatives are observed in different wavelength.

Keyword:--

Chalcone, Dizenly, Claisen Schmit

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A Study on Work Life Balance of Women Workers in Thoothukudi

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Mr. N. Paulraj, Research Scholar (Part time), Department of Commerce,Manonmaniam Sundaranar University,Tirunelveli

Abstract:--
Maintaining a balance between work life and personal life is called Work Life Balance. The meaning of work life balance has chameleon characteristics. It means different things to different groups and the meaning often depends on the context of the conversation and the speaker's viewpoint. This paper expose "Work Life Balance" deals with any activity, which takes place at every level of organization, which seeks greater organizational effectiveness through the enhancement of human dignity and growth. In this rapid evolving world everyone faces the issue of time management at one point or another, but as more and more and more people deal with working at one or more jobs, fighting long commutes, managing a household, raising one or more children, responding to increasing work and time pressures of the shrinking work place, and dealing with aging parents, the days often seem to last long into the night and vacation and leisure time seem to be consumed with issues other than relaxation and personal fulfillment. This study is an attempt to find, why they have to work and what factors are that motivate them to work and their level of perception of their work life balance. The main objectives of the study are to analyze the heavy work load; it's difficult to spend time with the family. To study the prevalence of work life balance problem among the working women. To identify the work stress and its impact on family life. To analyze the extent of support of the family members. This study is an empirical research based on survey method. Primary data were collected directly from work life balance of women workers in Thoothukudi with the help of questionnaire.

Ratio cum Median Based Modified Ratio Estimators with Known Quartiles and Skewness

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Dr.P.Vetri Selvi, Department of Statistics, Fatima College, Madurai, Tamilnadu

Abstract:--

In this paper, some ratio cum median based modified ratio estimators with known quartiles and skewness of the auxiliary variable have been proposed. The performance of the proposed class of estimators is assessed with that of simple random sampling without replacement (SRSWOR) sample mean, ratio estimator and modified ratio estimators in terms of variance/mean squared errors. The performance of proposed class of estimators is illustrated with the help of certain natural population available in the literature. The percentage relative efficiency of the proposed class of estimators with respect to SRSWOR sample mean, ratio estimator and some of the existing modified ratio estimators are also obtained.

Keyword:--

Auxiliary variable; Bias; Mean squared error; Natural population; Percentage relative efficiency; Simple random sampling.

A Study on Customers' Preference towards Flipkart

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C.Mariammal, M.com, Assistant Professor & Head A.P.C.Mahalaxmi College for Women, Tuticorin.
Dr.S.Vanitha, M.com., M.phil., Ph.D Assistant Professor & Head A.P.C.Mahalaxmi College for Women, Tuticorin.

Abstract:--
        "Consumer behavior may be defined as the behavior that consumers display in searching for, purchasing, evaluating and disposing of produces, evaluating and disposing of produces, services and ideas which they expect to satisfy their needs". However, it may be noted that consumer behavior research today goes far beyond "what, why, how, when, where and how often" facets of consumer behavior and also considers the uses of goods they buy and evaluations after use. There may be many repercussions after the consumer makes a purchase. For example, a buyer may feel sorrow or guilty or dissatisfied with his choice of a particular scooter, because of continuing maintenance expenses over it. The buyer may decide not to buy the same make or model again and may also refer to his friends conveying the dismal performance of the scooter. Each of these possible consequences of consumer's post   purchase dissatisfaction has significant implication for the marketer. For the marketer, the person is important, who makes the buying decision, not the one who actually makes the purchase or uses the product. Thus, the study of consumer behavior is the study of how individuals make decisions to spend their available resources- money, time and effort on consumption related items.

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A Styudy on Women Entrepreneurs in Thoothukudi City

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K. Chandra, Assistant professor of commerce, A.P.C.Mahalaxmi College for women, Thoothukudi
S.Vedhavalli, Assistant professor of commerce, A.P.C.Mahalaxmi College for women, Thoothukudi

Abstract:--
Entrepreneurship plays an imperative role in the growth of any society. Development of entrepreneurs's culture and qualitative business development service are the major requirement for industrials growth. Entrepreneurs emerge from an individual's creative spirit into long-term business ownership, employment creation. Capital formation and economic security. Entrepreneurial skills are essential for industrialization and for alleviation of mass unemployment and poverty. Women Entrepreneurs may be defined as the women or group of women who take initiative to set up a business enterprise and to run it smoothly. According to schumpeter's concept , "Women who innovate, imitate or adopt a business activity are known as women entrepreneur's". Government of India, based on women participation in equity and employment of a business enterprise has defined women entrepreneurs as' An enterprise owned and controlled by a women having a minimum financial interest of 51% of the capital and giving at least 51% of the employment generated in the enterprise to women. Hence the present study intends to focus on the role of women entrepreneurs in Thoothukudi city and various skills gained by women entrepreneurs' development training programme and give some suggestions for developing the women entrepreneurs' skills and also to pave the way for other women to start new ventures.

Real Time Treatment of Cancer Using Nanotechnology

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Abstract:--
    Nanotechnology refers broadly to a field of applied science and technology whose unifying theme is the control of matter on the molecular level in scales smaller than 1 µm, normally 1-100 nm, and the fabrication of devices within that size range. Two main approaches are used in nanotechnology. In the "bottom-up" approach, materials and devices are built from molecular components, which assemble themselves chemically by principles of molecular recognition. In the "top-down" approach, nano-objects are constructed from larger entities without atomic-level control. In addition, as the need for the development of new medicines is pressing, and given the inherent nanoscale functions of the biological components of living cells, nanotechnology has been applied to diverse medical fields such as oncology, cardiovascular medicine, and in treatment of other chronic diseases. Indeed, nanotechnology is being used to refine discovery of biomarkers, molecular diagnostics, and drug discovery and drug delivery, which could be applicable to management of these patients. In this review, we will focus upon significance of nanotechnology in medical sciences, as well as the plausible side effects related to their use.

Keywords:--
    Drug discovery, medical sciences, nanotechnology, nano-objects, new medicines.

Techniques for Detection of Fetal Hypoxia from Cardiotocography Signals: A Survey

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Abstract:--

    The massive growth in Medical Science department is providing a comfort life to human life cycle. New techniques are emerging day by day for the diagnosis of various diseases. Many of the diseases are successfully detected and cured for adults. Apart from these diseases, there is also some issues which causes sudden death. One of such issue is lack of oxygen for fetus during third trimester of pregnancy. As we already know, oxygen is the required gas for the survival of living organisms. Cardiotocography is generated by recording fetal heart rate and uterine contractions signals simultaneously and it is technically obtained from the mother's abdominal wall. Accurate interpretation of the FHR signals is particularly important because FHR signals carry vital information to help an assessment of fetal condition. Most pregnancy period complication leads fetus to a severe drawback that restricts correct growth that causes impairment or death. Predicting pregnancy risk levels before the occasion of complications encourage correct fetal growth. The CTG features that allow the clinician to recognize a fetus who may present with an antenatal insult such as chronic hypoxia, pre-existing non-hypoxic brain injury and fetal growth. This survey will briefly address the techniques leading to intrauterine hypoxia and their impact on the fetal cardiovascular system.

Keywords:--

    Cardiotocography(CTG), Fetal Heart Rate (FHR), Uterine Contractions (UC), Hypoxia.

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A Study and Analysis on Agricultural Credits With Reference To State Bank of India

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Abstract:--
     Agriculture continues to be main activity of the rural people of Thoothukudi District. It is the main occupation of 70% of the people in the District. The major crops loan in the District are paddy, bajra, maize, black gram, green gram, jowar, chillies etc., State Bank of India is the lead bank of the district. The researcher classify the agricultural borrowers in to crop loan borrowers, allied agricultural loan borrowers and other agricultural loan borrowers. In this paper, the researcher attempt to study and analyze on defaulters of agricultural borrowers.

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Computer Networking Technology

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Abstract:--
  The article is based on the computer networking and the technologies based on networks. Mainly about the future technologies of networks and the computer hacking technologies and the prevention from hacking. Because these topics are the most wanted topics of youngsters.

Investigations on the Critical Parameters of a   500 MW Utility Boiler

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Abstract:--

Electricity is the prime indicator of the economic growth and standard of living of the people in a nation. Generation of power is mainly dependent on coal fired power plants throughout the world. Coal is known to be one of the most important natural resources in the world. The surplus availability, extensive distribution and versatility of coal makes it a significant source of electrical energy for all times. The major proportion of electric power is generated using coal rather than any other source of fuel. It is cheaper than other fossil fuels but it is hard to be burnt. For power units operating on fossil fuel, the sole, prime, operating cost is fuel. The fuel expenses account for about   50 - 60% of the cost of generating electricity. Hence, procuring fuel of lower price is often a major challenge. Despite this and other environmental concerns, coal is still found to hold a major share of the electrical energy consumption in future. Over 48% of the world's electric power supply is obtained from thermal power plants. A thermal power plant produces electrical power from fossil fuel, namely coal through several energy conversion processes, using water as a working fluid. It comprises a boiler, turbine, electric generator and other auxiliary equipments each of which serve a definite purpose. This paper deals with the mathematical model and the design aspects of the boiler and the system response when it is subjected to many inputs

Keywords:--

Process control, Utility Boiler, Chien-Hrones-Reswick tuning, feed control.

Production of Biogas and Electricity from Sewage Treatment Plant

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Abstract:--

Management of liquid waste becomes a challenge for urban local bodies. Septic tanks are the commonly used onsite sanitation system. Poor designed tanks lead to overflow of sewage. Desludging of septic tanks is critical in certain circumstances and human entry is the only option for desludging human death rate. A new technical way is needed to solve the above problem. The ultimate goal of this challenge aims on eradicating the entry of humans into septic tanks technologically. Due to this technology, economic growth can be upgraded by which can be executed successfully so as to reduce harmful disease.

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A Survey on Software Testing Tools For Web Applications

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Abstract:--

The role of testing in software development begins with improved reliability, quality and performance of the software. Software testing has now become a part of programming so that the developers are able to rectify errors right from the beginning stage. It is a stage where the developers find bugs in the software and make the software bug free. This paper discusses about the testing tools used for web application along with few tools which can perform data analysis of the web application.

Ker Words:--

Software Testing, Web application, Testing Tool, Data analysis.

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A Survey on Software Testing Tools for Mobile Applications

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Abstract:--
        The software testing is incomplete without some measure of quality assurance and software testing. This paper gives an overview on software testing, the types of testing, testing tools used in mobile applications and finally about few application using the testing tools. One such is the gaming applications which requires a wide range of testing levels. As these applications mainly concentrates on the collaboration, short iterations and frequent deliveries, software testing is an important process in fulling the integrity of such applications. The android testing tools such as Monkey testing and JUnit testing are discussed in this paper. Their impact on the software applications, how each tool had been taken over by the other tools, how they are also involved as a cause for the next generations of testing tools to come are also discussed.

Keywords :-
        Software testing, Mobile application, Testing Tool.

Smart Car Automated System to assist the Driver in Detecting the Problem and Providing The Solution

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Abstract:--

In todays world, Mobile application plays a very important role to process any type of data in hand. The mobile application is mainly developed for the drivers to work in mobile devices and to run on tablets and smart phones. These applications are used for various purposes like web browsing, calendar, buying music, gaming, traveling, entertainment, social networking and productivity. The mobile applications differ from the integrated software systems found in Personal Computers by its isolated functionality. The motor Car belongs to the mechanical world, and the functionality is not aware by all the drivers, thus it becomes a difficult one to handle it. In the existing system, there is no diagnostic system launched in mobile application for the drivers to find the minor problems in each and every car. There is only a manual book given to the drivers for motorcar by the manufacturer to see how to start a car and the parts of the car are given in detail. There is nothing mentioned about the minor problems that happens in the motorcar and the solution to recover it. To overcome the problems faced by the Drivers on the road and to help them in emergency situation, a Self Detection and recovery system is proposed for the Drivers, especially for the Learning drivers to detect the minor problems in the vehicles and also to recover from those problems by using this automized smart system. Through this smart mobile application, the driver can find solutions for all the minor problems faced in the motorcar. The driver will be aware of exact fault and the driver can take necessary action accordingly. The proposed system acts as a good driver friendly interface for any Driver to detect the minor problem easily by using the alert signals and also to recover from these problems easily by searching through the terms, which usually denote the type of the problem and it accordingly find out the solutions, which would be highly helpful to proceed without interruption. The proposed system a low cost application wherein the driver has to sign up and find the solutions to the problems. This mobile application is secured because only the authorized driver can login and see the solutions but not by anyone else. This application gives the correct and exact solution to all the minor problems encountered by the mobile driver.

Keywords:

Android application, Minor problem, Mobile driver, Motor Car, Self Detection and Re-covery system, Smart phone.

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Investigation of Mechanical Properties of Palmyra Palm Leaf Stalk/Carbon Fiber Reinforced Polyester Hybrid Composite

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Abstract:--

In this investigation, the Mechanical properties of short randomly oriented Borassus flabellifer and carbon fiber reinforced Polyester hybrid composite were predicted based on various weight percentage. The Hybrid composite were fabricated by Resin transfer moulding or compression moulding technique. The tensile strength, flexural and Impact properties of the composite were evaluated. The fractured surface of the hybrid composite were analysed by used Scanning Electron Microscopy [SEM] and also studied the water absorption performance of the fabricated composite. Experimental results were compared with other natural fiber and it has high strength to weight ratio.

Keywords:--

Hybrid Composite, Palmyra Palm Leaf Stalk Fiber, Carbon Fiber, Scanning electron microscopy.

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Rotary Friction Welding of Dissimilar Joints: A Review

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Abstract:--
Friction welding is a solid state welding, where welding takes place by the application of friction between two mating surfaces of metal along the application of pressure. Due to increase in demand of dissimilar material combinations in applications such as power generation, reactor cooling systems, automobiles and aeronautical applications, the solid state welding is most suitable in current manufacturing scenario. Friction welding machine is designed to convert mechanical energy into heat at the joint to weld using relative motion between work pieces without use of electrical energy. Friction pressure, Upset pressure, Upset time and Friction time are input parameters of Friction welding process. The focus of this paper which influence of weld parameters, heat generation, understanding deformation, Metallurgical properties, Mechanical properties and Non-destructive testing were evaluated in friction welded dissimilar joints. Mostly carbon steel, Stainless steel, Aluminum and Copper dissimilar joints were investigated. In this work, reviews of research papers in rotary friction welding process parameters on dissimilar joints are discussed.

Keywords:--
Friction welding, dissimilar joints, Weld parameters, review.