

Department of Biochemistry

1. **Ms.V. Bharathi et al.** – “Phytochemical and antibacterial effect of Quisqualis Indica Linn”, International Journal of Institutional Pharmacy and Life Sciences, www.ijipls.com, IF: 3.57, ISSN: 2249-6807, Vol 5, Issue 2, Page No: 32-34, Mar-Apr 2015.

Abstract:

The present paper deals with the phytochemical and antimicrobial screening of therapeutic importance from Quisqualis indica Linn an important medicinal plant. The study involves the preliminary screening of secondary metabolites from the Flower of Quisqualis indica Linn. The antibacterial activity was performed against a few pathogens Staphylococcus aureus and Bacillus cereus. The generated data has provided the basis for its wide use as the therapeutic both in traditional and folk medicine.

2. **Ms. B. Ramya et al.**–“Anti-Anemic Activity Murraya Koenigii Leaves on Phenylhydrazine Induced Anemia in Rats”, World journal of Science and Research, www.harmanpublications.com, Peer reviewed, ISSN: 2455-2208, Vol 1, Issue 1, Page No: 1-8, May 2015.

Abstract:

The incidence of anemia is higher in the third world than in developed countries due to the presence of many aggravating factors such as poor nutrition, high prevalence of blood parasites. Anemia is one of the numerous ailments claimed to have been successfully treated with plant materials by traditional medicine practitioners. Many plant and plant products are used to treat the anemia. Keeping in view in the present study was evaluated the anti-anemic activity of Murraya Koenigii leaves. Phenylhydrazine, a alkylhydrazine was chosen to induce haemolytic anemia. The results of the present study concluded that Murraya Koenigii leaves inhibits anemia induced by phenylhydrazine. The anti-anaemic potentials of Murraya Koenigii leaves are lending credence to use of this plant in folklore medicine for the management of anemia.

3. **Ms.B. Ramya** –“Evaluation of Phytoconstituents of Bryonopsis Laciniosa Fruit by UV-Visible Spectroscopy and FTIR analysis”, Peer reviewed, www.phcog.com , IF: 2.16, ISSN: 0975-3575, Vol 7, Issue 3, Page No: 165-170, May-June 2015.

Abstract:

Objectives: To investigate the phytochemicals present in Bryonopsis laciniosa fruit.

Methodology: Qualitative, Quantitative screening, Compound Identification by UV-Visible method and identification of functional group of the active chemical components were followed by standard procedures.

Result: The results showed the presence of phytonutrients like reducing sugar, terpenoids, triterpenoids, aminoacids, anthroquinone, polyphenols, glycosides, anthocyanins, tannins, coumarins, emodins, saponins, total alkaloids, total flavonoids, lignin and serpentine. These

substances may be responsible for the health related properties of the plant which are based on antioxidant, anticancer, antipyretic, antiaphoretic, antidiabetic, anti-inflammation, antiheamatism, antimicrobial and antiviral activity.

Conclusion: This study supports the popular use of Bryonopsis laciniosa fruit in preparation of various pharmaceutical formulations for human welfare.

4. **Dr.T. Karpagam et al.** - “ Protective Effect of Centella Asiatica and Phyllanthus Amarus on Ethanol Induced Hepatotoxicity in Wistar Rats”, Asian Journal of Multidisciplinary Research, www.yadavapublication.com, IF: 5.210, E- ISSN: 2395-1710, ISSN (Print): 2395-1729, Vol 1, Issue 5, Page No: 15-19, July 2015.

Abstract:

Excessive consumption of ethanol induces deleterious metabolic changes in the liver. Liver injury in chronic alcoholics is due to oxidative stress that results in impaired liver functions and increased apoptosis. The natural plant component improves the liver against alcohol-induced oxidative stress. In the present study Centella asiatica and Phyllanthus amarus were treated against hepatotoxic effects of ethanol in wistar rats. Rats are divided into four groups of 6 animals each. Group one (G1) was the control group is orally given distilled water for 2 weeks. Group two (G2) is given ethanol (3g/kg/b. w) for 2 weeks. Group three (3G) alcohol-administered rats were post treated with aqueous extract of Centella asiatica (750 mg/kg body weight) for weeks and Group four (G4) alcohol-administered rats were post treated with aqueous extract of phyllanthus amarus (300 mg/kg/ body weight) for 2 weeks. Alcohol caused a marked rise in serum alanine amino transferase (ALT), aspartate amino transferees (AST) and bilirubins. Post-treatment with Centella asiatica and Phyllanthus amarus significantly reduced the level to near normal when compared to ethanol induced group.

5. **Dr.T. Karpagam et al.** - “Analysis of Functional Compounds and Antioxidant Activity of Centella Asiatica”, World Journal of Pharmacy and Pharmaceutical Sciences, peer reviewed, www.wjpps.com, SJIF: 5.21 ICV: 6.21, ISSN: 2278-4357, Vol. 4, Issue 8, Page No: 1982-1993, Aug 2015.

Abstract:

The present study was carried out to elucidate free radical scavenging activity of the leaves of Centella asiatica. Centella asiatica (L) is a perennial herb, widely used in food and beverages and has increased over the years basically due to its beneficial functional properties. Leaves of Centella asiatica were collected from in and around Tiruchirappalli District. Its potential antioxidant activity is related to its bioactive constituents. In the present study the antioxidant capacity, the free radical scavenging activity and functional compounds by FTIR were estimated. The free redical scavenging activity of the leaves of Centella asiatica using 2, 2-diphenyl-1-picrylhydrazyl (DPPH), Reducing power Assay Hydrogen peroxide assay, Superoxide radical scavenging potential and Nitric Oxide Inhibition potential were determined. It was found that Centella asiatica exhibited excellent antioxidant capacity and radical

scavenging ability which was determined by the IC50 values. The results indicated that *Centella asiatica* leaves could be an important source of natural radical scavengers. Antioxidants play a role in protecting against certain conditions such as heart disease and stroke. It has been proposed that the mechanisms leading to these diseases may be promoted by free radicals and that antioxidants may suppress the action of these molecules.

6. **Ms.B. Ramya et al.** – “GC –MS Analysis of Bioactive Compounds in *Bryonopsis Laciniosa* Fruit Extract”, International journal of Pharmaceutical Sciences and Research, www.ijpsr.com, Peer reviewed, IF: 1.79, ISSN (Print): 2320-5148, E-ISSN: 0975-8232, Vol 6, Issue 8, Page No: 3375-3379, Aug 2015.

Abstract:

The bioactive components of *Bryonopsis laciniosa* fruits have been evaluated using GC/MS. The chemical compositions of the methanolic extract of *Bryonopsis laciniosa* fruits were investigated using Perkin-Elmer Gas Chromatography-Mass Spectrometry, while the mass spectra of the compounds found in the extract was matched with the National Institute of Standards and Technology(NIST) library. The GC-MS analysis shows that the most prevailing compounds were identified as Oleic Acid, Hexanoic acid, 2-Ethylcyclohexanone, 2-Methyltetracosane, 2-Undecenal, 1,2-Benzenedicarboxylic acid, Ascorbic acid 2,6-dihexadecanoate, Octadecanoic acid, (2E)-2-Decenal. The compounds like Sulfurous acid, n-Nonaldehyde, 2-Hepten-3-ol, Decadienal, 3-Octenoic acid, 1-[2-(acetyloxy)ethyl]-3-oxooctylacetate \$\$ acetic acid 3-acetoxy-5-oxo-decyl ester,9-Octadecenoic acid, 2H-Pyran-2-one, Z,Z-4,15-Octadecadien-1-ol acetate were moderately present. The results confirm the presence of bioactive components which are known to exhibit medicinal value as well as pharmacological activities.

7. **Ms.B. Ramya et al.** –“In Vitro Antioxidant Activity of *Bryonopsis Laciniosa* Fruit Extract”, Indian journal of Applied Research, www.ijar.in, peer reviewed, IF: 3.62, ICV:74.5, ISSN: 2249-555X, Vol 5, Issue 9, Page No: 262-266, Sep 2015.

Abstract:

Antioxidant activity of methanolic extract of *Bryonopsis laciniosa* fruit was carried out for proving its effect in free radical mediated diseases including diabetes, cardiovascular disease, cancer etc. The methanolic extract was screened for in vitro antioxidant activity by DPPH radical scavenging assay, Total antioxidant assay, Superoxide anion scavenging activity, Nitric oxide scavenging activity, Fe²⁺ chelating activity assay at different concentrations. *Bryonopsis laciniosa* fruit extract showed a marked antioxidant activity and it is due to the essential phytochemicals especially flavonoids and polyphenols present in it. The results of the present study showed that the *Bryonopsis laciniosa*(Linn) fruit extract contains active biocompounds which participate in various pathophysiology of diseases including cancer, cardiovascular diseases, diabetic, ageing etc. This work has gathered experimental evidence on the *Bryonopsis laciniosa*(Linn) fruit as natural antioxidant for its capacity to scavenge reactive oxygen and

nitrogen species and protect cells/organism from oxidative damage and thus could be effective against oxidative stress.

8. **Ms. V. Bharathi et al.** – “Antimicrobial Activity and Preliminary Phytochemical Screening of flower extracts from *Azima Tetracantha* (L.)”, *European Journal of Pharmaceutical and Medical Research*, www.ejpmr.com, peer reviewed, IF 2.026, ICV 7.06, ISSN(Print): 3294-3211, Vol 2, Issue 6, Page No: 195-197, Oct 2015.

Abstract:

In the present study aqueous, ethanolic and methanolic extract of *Azima tetracantha* were investigated for antimicrobial activity. The microorganisms employed were *Klebsiella* sp. *Staphylococcus aureus* and *Pseudomonas aeruginosa* sp. The susceptibility of bacteria strains against the three extracts was determined using the well diffusion method. The most susceptible micro organisms was *Staphylococcus aureus* while the least susceptible was *Klebsiella* sp. Highest antibacterial activity was observed with water extract of *Azima tetracantha* against *S. aureus* while minimum activity was observed with extract of *Azima tetracantha* against *Klebsiella* sp. Phytochemical analyses revealed the presence of alkaloid, tannin, Phenol, volatile oil, steroid, tannin and saponin.

9. **Ms.B. Ramya et al.** –“Micronutrients and Vitamin Analysis of *Bryonopsis Laciniosa* Fruit”, *International journal of Pharma and Bio Sciences*, SNIP:0.643 IPP:0.411 SJR: 0.329 IF: 5.121, Peer reviewed, www.ijpbs.net, ISSN: 0975-6299, Vol 6, Issue 4, Page No: 265-273, Oct 2015.

Abstract:

The study was planned to analyse the vitamins and minerals present in *Bryonopsis laciniosa* fruit. Study revealed that the fruit contains Vitamins like C,D and E. Iron was found to be very much abundant and Calcium, Magnesium, Potassium, Chloride are in high amount. Sulphate and sodium are in a moderate level. Carbon, phosphorous, sodium, sulphur, zinc and manganese are substantially present while copper, Boron, selenium and molybdenum are present in trace amounts. These substances may be responsible for the health related properties which are based on their antioxidant, anticancer, antipyretic, antiaphoretic, antidiabetic, anti-inflammation, antiheamatisum, antimicrobial and antiviral activity.

10. **Ms.B. Varalakshmi et al** – “Biodegradation of Polythene Bag using Bacteria Isolated from Soil”, *International Journal of Current Microbiology and Applied Sciences*, www.ijcmas.com, ISSN: 2319-7706, IF: 2.937, Peer reviewed, Vol 4, Issue 11, Page No: 674-680, 2015.

Abstract:

In the present investigation the soil bacteria were isolated from plastic contaminated soil sample. The bacterial isolates such as *Desulfotomaculum nigrificans* and *Pseudomonas alcaligenes* were identified by morphological and biochemical characterization. The biodegradation efficacy of *Desulfotomaculum nigrificans* and *Pseudomonas alcaligenes* by using

polythene bag were studied. The *Pseudomonas alcaligenes* was found to be more effective than *Desulfotomaculum nigrificans* in degradation of polythene bag at 30 days. An increase in incubation period there is a dramatic increase in weight loss of polythene bag.

- 11. Ms.B. Ramya et al.** – “Hypolipidemic effect of Bryonopsis Lacinosa Fruit in High Fructose Fed Rats”, Asian Journal of Innovative Research, Peer reviewed, www.asianjir.com , ISSN: 2455-7285, Vol 1, Issue 1, Page No: 6-10, Jan 2016.

Abstract:

In the present study to investigate the hypolipidemic effect of Bryonopsis laciniosa fruit in high fructose fed rats. Animals were divided into 3 groups of 6 animals each as follows. Group 1: Normal control rats fed with control diet and served as a control. Group 2: Fructose-fed animals received fructose-enriched diet for a period of 3 weeks. Group 3: Fructose-fed animals treated with Bryonopsis laciniosa seed extract by oral gavage daily at a dose of 500 mg/kg body weight for 3 weeks. The observations made on different groups of experimental and control animals were compared. The results of the study concluded that reduction in body weight gain, serum lipids and lipid peroxidation levels suggests that Bryonopsis laciniosa possesses significant hypolipidemic potential. The hypolipidemic activity of Bryonopsis laciniosa may be due to the phytochemicals present in it.

- 12. Ms.V. Bharathi, Dr.G. Hemalatha and Dr.S. Shanthi**–“Antihelminthic Activity and Phytochemical Screening of Cucurbita Maxima and Momordica Charantia Seeds”, International journal of institutional pharmacy and life sciences, www.ijipls.com, IF: 3.55, ISSN: 2249-6807, Vol 6, Issue 1, Page No 22-31, Feb 2016.

Abstract:

The present study deals with phytochemical and anthelmintic evaluation of Cucurbita Maxima (pumpkin) seeds and Momordica charantia seeds. This evaluation revealed the presence of many phytochemical constituents. Crude tannis were isolated and identified using thin layer chromatography. All extracts were evaluated for anthelmintic activity. Momordica charantia Seeds extracts showed very good anthelmintic activity. Paralysis and death times of crude extracts were very close to the standard drug Albendazole.

- 13. Ms.V. Bharathi, Dr.S. Shanthi and Dr.G.Hemalatha**- “In-Vitro Screening of Antibacterial Efficacy of Cadaba Fruticosa (L.) Against Common Human Pathogens”, World journal of pharmaceutical research, www.wjpr.net, IF: 6.805, ISSN: 2277-7105, Vol 5, Issue 4, Page No:783-791, Mar 2016.

Abstract:

Infectious diseases caused by Bacteria and Fungi are a growing global threat today, accounting for 50% of the death in tropical countries. Though, conventional drugs provide effective therapy against these infections, development of Multi Drug Resistance, high cost and

adverse side effects of synthetic chemotherapeutics urged the researchers to search for an alternate, safe and natural remedy from enormous range of medicinal plants which is the treasure of India. In the current investigation, *Cadaba fruticosa* (L.) which is called as Vizhuthi, Adamorinika, Chikondi and Piluka in Tamil and Indian *Cadaba* in general is extracted with alcohol, chloroform and water and screened for its antibacterial activity against the common pathogens viz., *S.aureus*, *Pseudomonas*, *Bacillus* sp., *E.coli*. All the three extracts showed promising results in the control of pathogens. Alcohol fraction showed 17.4 mm zone of inhibition (ZOI), aqueous extract showed 16.8 mm zone of inhibition (ZOI) and chloroform fraction showed 11.9 mm zone of inhibition at 1600 µg concentration / well. *S.aureus* (17.4 mm) and *E.coli* (14.5mm) were highly sensitive to alcohol fraction. *Pseudomonas* was highly susceptible to chloroform fraction (14.7mm). In general, *Bacillus* was least sensitive to all the fractions.

- 14. Ms. B. Varalakshmi et al.** –“ In Vitro Biomolecular Protective effect of *Cinnamomum Zeylanicum* Bark Extracts Against Oxidative Damage”, International journal of pharmacy and pharmaceutical sciences, www.ijppsjournal.com , IF:0.49, SJR:0.28 , ISSN: 0975-1491, Vol 8, Issue 7, Page No. 369-372, May 2016.

Abstract:

Objective: Free radicals play an important role in the pathogenesis of many disorders by damaging important biomolecules such as lipids, proteins and DNA. Natural antioxidants are safer, cheaper and potential therapeutics to scavenge free radicals. Hence, this study was aimed to access the biomolecular protective effect of *Cinnamomum zeylanicum* bark, a culinary spice, on the oxidant-treated membrane lipids and DNA in cell-free systems.

Methods: The total phenolics and flavonoid content of the bark were estimated. The extent of inhibition of lipid peroxidation (LPO) by aqueous, methanolic and chloroform extracts of bark was studied in vitro in three different membrane models such as goat RBC ghosts, goat liver homogenate, and goat liver slices which differ in architecture and lipid composition. The extent of inhibition of oxidant-induced DNA damage by the bark extracts was assessed in commercial DNA preparations such as pBR322, herring sperm, and calf thymus DNA.

Results: The total phenolic content was 153.33 ± 23.09 mg of pyrocatechol equivalents/g, and flavonoid was 33.66 ± 1.15 mg of catechin equivalents/g of powdered bark. All the three extracts exhibited a considerable inhibition of LPO in all the membrane systems, and most significant inhibition was exerted by methanolic extract on the RBC ghosts. All the three extracts were able to revert the oxidant –induced DNA damage, and more significant DNA protection was rendered by methanolic extract on calf thymus DNA.

Conclusion: The present study showed that *C. zeylanicum* bark is a nutraceutical rich in phenolic antioxidants that can protect biomolecules against oxidative stress.

15. **Ms.B. Varalakshmi et al.** –“Cinnamomum Zeylanicum Linn. The spice with multi potential”, Systematic Reviews in Pharmacy, www.sysrevpharm.org, SJR:0.14, IF:0.29, ISSN(Print): 0975-8453, E-ISSN: 0976-2779, Vol 7, Issue 1, Page No. 24-29, Jan-Dec 2016.

Abstract:

Cinnamomum zeylanicum Linn. has been used as a spice and flavoring agents. It is one of the healthiest spices and possesses useful medicinal benefits. It has been recognized as the medicinally essential phytoconstituents, such as phenolic, flavonoid and carotenoid. It is loaded with rich amount of polyphenols, which are the powerful antioxidants. It inhibits the growth of certain bacteria and fungi. It dramatically reduces insulin resistance, there by helps insulin to reduce blood glucose. It also slow down the break down of carbohydrate by interfering with carbohydrate digesting enzymes and decreases the entry of glucose from intestine to bloodstream. It reduces the growth of cancer cells. Numerous pharmacological investigations have confirmed that the ability of this plant is to exhibit hepatoprotective, cardioprotective, and neuroprotective activities and it supports the traditional uses. Present review gives a detailed information on recent literatures describing the multipotential uses of C. zeylanicum available for the treating various ailments.

16. **Dr.S. Shanthi, Ms.V. Bharathi and Dr.G. Hemalatha et al-** “Phytochemical Analysis and Antibacterial Efficacy of Adathoda Vasica”, World journal of pharmacy and pharmaceutical sciences, www.wjpps.com, IF: 6.041, ICV:6.21, peer reviewed, ISSN: 2278-4357, Vol 5, Issue 3, Page No: 799-808, Feb 2016.

Abstract:

Infectious diseases are the leading cause of death worldwide. Respiratory tract infection (RTI) is defined as any infectious disease that occur in the upper or lower respiratory tract. Respiratory tract is a frequent site of infection because it comes in direct contact with the environment and is exposed to airborne microorganisms, including viruses, bacteria, fungi and parasites. Upper respiratory tract infections (URTIs) include the common cold, laryngitis, pharyngitis, tonsillitis, acute rhinitis, acute rhinosinusitis and acute otitis media.

Leaves of Adathoda vasica (Family: Acanthaceae) has been used in Indian system of traditional medicine for the treatment of respiratory disorders. In the present investigation, the antibacterial efficacy of alcohol and aqueous extracts of Adathoda vasica were tested against respiratory tract pathogens especially Pseudomonas aeruginosa, Klebsiella pneumonia, Salmonella sp., Proteus mirabilis, Bacillus sp and their phytoconstituents were also analyzed.

Department of Chemistry

1. **Dr. J. Lakshmipraba et al.** - "Synthesis, DNA binding and docking studies of copper(II) complexes containing modified phenanthroline ligands" *Journal of Coordination Chemistry*, peer-reviewed, IF- 2.012, www.tandfonline.com , ISSN(Print): 0095-8972, ISSN(Online): 1029-0389 Vol 68, Issue 8, page No: 1374-1386, March 2015.

Abstract:

Copper(II) complexes, [Cu(Hsal)(L)(ClO₄)] (where Hsal = salicylaldehyde, 1: L= dpqC = dipyrido [3,2-a:2',3'-c] (6,7,8,9-tetrahydro)phenazine and 2: L = dppz = dipyrido[3,2-a:2',3'-c]phenazine), were synthesized and characterized using elemental analysis and spectroscopic methods. Single-crystal XRD on 1 confirms the presence of square pyramidal geometry around Cu(II). DNA interaction studies were performed for both the complexes using UV visible, fluorescence and circular dichroism spectroscopic techniques, and viscosity. These complexes bind with DNA through partial intercalation. Molecular docking studies confirm our experimental findings of mode of binding of our complexes with DNA.

2. **Ms.P. LakshmiPrabha et al.** – "A Novel Method for the Removal of Zinc(II) by Natural Clay Available in a Pond in Tiruchirappalli, India", *International Journal of Engineering Science and Technology*, peer reviewed, IF :0.654, www.estij.org , ISSN(Print): 2277-5293, E-ISSN: 2250-3498, Vol 5, Issue 2, Page No: 256-259, April 2015.

Abstract:

The removal of Zn²⁺ ions in aqueous solution was investigated by adsorption process on natural pond clay. In this study, the effect of pH, adsorbent size, adsorption size, initial concentration of metal ion, and efficient adsorbent for the removal of zinc ions from industrial waste water. adsorbent dose on the sorption capacities were carried out. Adsorption isotherm models were studied. According to the results, natural clay is recommended as cheap

3. **Dr.J. Lakshmipraba et al.** - "Polyethyleneimine anchored copper(II) complexes: Synthesis, characterization, in vitro DNA binding studies and cytotoxicity studies", *Journal of Photochemistry and Photobiology B: Biology*, peer-reviewed, SNIP:1.109, SJR:0.684, IF-2.960, www.elsevier.com/locate/jphotobiol , Vol 142, ISSN: 1011-1344, Page No: 59-67, Nov 2015.

Abstract:

The water soluble polyethyleneimine-copper(II) complexes. [Cu(phen)(L-tyr)BPEI]ClO₄ (where phen =1,10-phenanthroline, L-tyr = L-tyrosine and BPEI = branched polyethyleneimine) with various degree of copper(II) complex units in the polymer chain were synthesized and characterized by element analysis and electronic, FT – IR, EPR spectroscopic techniques. The binding of these complexes with CT – DNA was studied using UV- visible absorption titration,

thermal denaturation, emission, circular dichroism spectroscopy and cyclic voltammetric methods. The changes observed in the physiochemical properties indicated that the binding between the polymer-copper complexes and DNA was mostly through electrostatic mode of binding. Among these complexes, the polymer-copper(II) complex with the highest degree of copper(II) complex units (higher degrees of coordination) showed higher binding constant than those with lower copper(II) complex units (lower degrees of coordination) complexes. The complex with the highest number of metal centre bound strongly due to the cooperative binding effect. Therefore, anticancer study was carried out using this complex. The cytotoxic activity for this complex on MCF-7 breast cancer cell line was determined adopting MTT assay, acridine orange/ethidium bromide (AO/EB) staining and comet assay techniques, which revealed that the cells were committed to specific mode of cell death either apoptosis or necrosis.

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4. **Ms. P. Lakshmi Prabha et al.** -“Adorption of Mn(II) by Curry Tree Carbon(CTC) from the Aqueous Solution”, Journal of Chemistry and Chemical Sciences, www.chemistry-journal.org, IF:2.89 ICV: 5.09 ISSN(Print): 2229-760X, ISSN(Online): 2319-7625, Vol 6, Issue 3, Page No: 233-244, March 2016.

Abstract :

The present study explored the ability of Curry Tree Carbon(CTC) for the removal of Mn(II) ion from aqueous solution. Batch experiments were conducted. The sorbent, which was prepared by a simple and concise method, was able to bind heavy metal viz., Mn(II) with very high efficiencies. The adsorption study was confirmed through characterization tests such as Fourier transform infrared spectroscopy X-ray diffraction analyses, scanning electron microscopy and elemental analysis. The CTC showed considerable capacity for the removal of Mn(II) from aqueous solution. The Langmuir isotherm model fitted well to experimental metal sorption. In this study, the sorption mechanism and ion exchange seem to be the most occurring phenomena.

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5. **Ms.P.LakshmiPrabha** –“Curry Tree Carbon – A Novel Adsorbent for the Removal of ZN(II) Ions in Aqueous Medium”, World journal of pharmacy and pharmaceutical sciences”, www.wjpps.com, IF: 6.041, Peer reviewed, ISSN: 2278-4357, Vol 5, Issue 3, Page No: 1543-1557, Feb 2016.

Abstract:

The present study explored the ability of Curry Tree Carbon (CTC) for removal of Zn(II) ions from aqueous solution. Batch experiments were conducted. The sorbent, which was prepared by a simple and concise method, was able to bind heavy metal with very high efficiencies. The adsorption study was confirmed through characterization tests such as Fourier transform infrared spectroscopy X-ray diffraction analyses, scanning electron microscopy and elemental analysis. The CTC showed considerable capacity for the removal of Zn(II) ions from

aqueous solution. The Langmuir isotherm model fitted well to experimental metal sorption. In this study, the sorption mechanism and ionexchange seem to be the most occurring phenomena.

Department of Commerce

1. **Dr.V.P.T. Dhevika et al.** - “Greening Banking Processes, Products, Services and Strategies”, Journal of Exclusive Management Science , www.jems.net.in, IF: 2.78, ISSN (Print): 2320-866X, E-ISSN : 2277-5684, Special issue, Page No: 38-41, Feb 2015.

Abstract:

A bank is a financial institution and a financial intermediary that accepts deposits and channels those deposits into lending activities, either directly or through capital markets. Banks offer different channels to access their different banking, etc. There are four major avenues for greening banks-processes, products and services, strategies and other activities- which are briefly outlined here in this article. It also includes Green Banking Initiatives taken by SBI and ICICI.

2. **Ms.J. Saradha and Dr.V.P.T. Dhevika** - “Attitudinal and Behavioural Responses of consumers towards Green Marketing in Calicut City”, Journal of Exclusive Management Science , www.jems.net.in, IF: 2.78, ISSN(Print): 2320-866X, E-ISSN : 2277-5684, Special Issue, Page No: 42-48, Feb 2015.

Abstract:

Green marketing is a phenomenon, which has gained momentum in the modern world and has emerged as an important concept in India along with the developed nations, and is seen as an important strategy of facilitating sustainable development with the scope of improvement in production processes. Some firms have been fast to accept the newer challenges or changes like environmental management, minimization of the waste aligning with organizational activities. To be successful in applying green marketing strategy, it should not forget attitude of consumers towards green marketing. A questionnaire was developed and distributed to consumers to get their response. Convenience Sampling is used. The sample sizes consist of 200 respondents. Dimensions involved in the study are knowledge about environment, Attitude towards environment, purchase behavior, Conservation Behaviour and Barriers to green lifestyle. Result shows that the most important behaviour and least behavioural responses is attitude towards environment.

3. **Dr.O.T.V. Latasri and Dr.V.P.T. Dhevika et al.** -“Green Human Resources Management”, Journal of Exclusive Management Science , www.jems.net.in, IF: 2.78, Special Issue, ISSN(Print): 2320-866X, E-ISSN: 2277-5684, Page No: 62-68, Feb 2015.

Abstract:

A Green employee is a nature-lover or an eco-activist. The paper focuses on Greening, meaning of green HRM, importance of green HRM, Role of a Green Employee, green human resource requirements, and greening of HRM functions and the findings of some green HRM research studies. It is hoped that the paper has some utility for generating an interest within potential researchers and for gaining a conceptual understanding of green HRM.

Department of Computer Science, IT & Computer Applications

1. **Ms.V. Mathimalar et al.** – “Secure Data Collection to Avoid the Densely Traffic Collusion Attack in Wireless Sensor Network”, International Journal of Innovative Research in Computer and Communication Engineering, www.ijrcce.com, IF: 6.577, peer reviewed, ISSN (Online): 2320-9801, ISSN (Print): 2320-9798, Vol 1, Issue 9, Page No: 1-8, Dec 2013.

Abstract:

Data collection is a prominent function provided by Wireless Sensor Networks[WSN]. In the entire data collection process, sensor node has spread in the critical area in an unplanned manner. Sensor network is a collection of sensor nodes which co-operatively send sensed data to sink node. After sensing, each sensor has to deploy densely data to the base station so that a WSN can successfully operate in the presence of component failures or Densely Traffic Collusion Attack. In this environment, it is very difficult to continue the surveillance. So far the data aggregation is not secure in the WSN. This problem can be solved using Cartesian product sets, Inductive Reasoning Implementation and Translating Method. In this paper, It has been developed New Sequence Key(NSKey) Algorithm to avoid the Densely Traffic Collusion Attack. In particular, Path File List (Pflist) Algorithm is proposes in which the sink node can be determined if the compute aggregate (SRA Value) includes any wrong contribution.

2. **Ms.S. Hemalatha et al.** – “A Security Threats Analyzed And Applications: Camera Based Attacks On Smart Phones”, International Journal of Research Science and Engineering, www.ijrse.org, peer reviewed, ISSN: 2212-4012, Vol 1, Issue 5, Pg. No.1-8, May 2015.

Abstract:

Nowadays, almost all the smart phones have features like camera and touch screen. These features may lead attacks on our smart phones. Modern smart phone platforms let users customize their device via third-party applications found on “app stores” or traditional websites. Application provenance is a problem so users are constantly at risk of installing malicious apps that steal personal data or gain root access to their device. For example, while using such malicious application, the response from application provider may contain the hidden request to have control on different devices connected to our mobile such as camera, front or main no issues phone is been attacked, recognizing our current location through main camera as it will show our surroundings and trying to recognize PIN’s through front camera. This paper reviews new security threats are emerged for mobile devices and survey on various techniques for detection of mobile malware.

3. **Ms.S. Hemalatha et al.** – “An Efficient privacy preserving for Mobile and Pervasive Computing”, International Journal of Engineering Science Invention, ISSN(Online): 2319-6734, ISSN(Print): 2319-6726, www.ijesi.org, peer reviewed, AQJ IF: 1.786, h-index 13, Vol 4, Issue 6, Page No: 38-41, June 2015.

Abstract:

More than applications rely on the existence of small devices that can exchange information and form communication networks. In a significant portion of such applications, the confidentiality and integrity of the communicated messages are of particular interest. In this work, to propose two novel techniques for authenticating short encrypted messages that are directed to meet the requirements of mobile and pervasive applications. By taking advantage of the fact that the message to be authenticated must also be encrypted, to propose provably secure authentication codes that are more efficient than any message authentication code in the literature. The key idea behind the proposed techniques is to utilize the security that the encryption algorithm can provide to design more efficient authentication mechanisms, as opposed to using standalone authentication primitives.

4. **Ms.V. Mathimalar et al.** –“Information Reclamation Progress for Multi-Item Requirements in Multi-Channel Transmit Environments”, International journal of Computer Science and Mobile Applications, www.ijcsma.com, (refereed) IF: 4.123, ISSN: 2321-8363, Vol 3, Issue 6, Page No: 45-50, June 2015.

Abstract:

With the emergence of various multimedia applications, service and devices, multimedia delivery is expected to become the major traffic of Internet which will keep increasing rapidly. In order to serve such large scale multimedia applications, more and more service providers store their video assets in the cloud and delivery streaming to their consumers cross cloud, for example, YouTube. Wireless Data broadcast has been a widely used technique of disseminating data to users. In this paper, we investigate the data retrieval problem in both push-based and pull-based broadcasts. When user only retrieves one data item per request, the retrieving process is straightforward. However, it is common that a user requests multiple data items at a time. In addition, the fast development of wireless communication technologies such as OFDM (Orthogonal Frequency Division Multiplexing) makes efficiently broadcasting through multiple channels possible. In the last decade, how to allocate data items onto multiple channels to minimize the expected response time has become a hot research topic which captured a great deal of attentions. It is clear that, Largest Number Data Retrieval given a deadline, when users want to download as many requested data items as possible. Minimum Cost Data Retrieval with the objective of minimizing the response time and energy consumption. We also propose a heuristic algorithm for it based on maximum independent set. For the case that all channels are synchronized, we propose a polynomial time optimal algorithm for LNDR.

5. **Ms.V. Mathimalar et al.** – “An Efficient Mining for Sensitive Transactional Data”, International journal of Engineering Science Invention, www.ijesi.org, IF: 1.786,ISSN (Online): 2319-6734, ISSN (Print): 2319-6726, Vol 4, Issue 7, Page No: 1-4, July 2015.

Abstract:

The existing research on privacy-preserving data publishing focuses on relational data: in this context, the objective is to enforce privacy-preserving paradigms, such as k-anonymity and l-diversity, while minimizing the information loss incurred in the anonymizing process. (i.e., maximize data utility). Existing techniques work well for fixed-schema data, with low dimensionality. Nevertheless, certain applications require privacy-preserving publishing of transactional data (or basket data) which involve hundreds or even thousands of dimensions, rendering existing methods unusable. To propose two categories of novel anonymization methods for sparse high-dimensional data. The first category is based on approximate nearest-neighbor (NN) search in high-dimensional spaces, which is efficiently performed through locality-sensitive hashing (LSH). In the second category, To propose two data transformations that capture the correlation in the underlying data: 1) reduction to a band matrix and 2) Gray encoding-based sorting. These representations facilitate the formation of anonymized groups with low information loss, through an efficient linear-time heuristic. To show experimentally, using real-life data sets, that all our methods clearly outperform existing state of the art. Among the proposed techniques, NN-search yields superior data utility compared to the band matrix transformation, but incurs higher computational overhead. The data transformation based on Gray code sorting performs best in terms of both data utility and execution time.

6. **Ms.R. Indra et al.** – “Near Field Communication Technology: At the Present Time in Addition to Future”, International journal of Advanced Research in Computer Science and Software Engineering, ISSN: 2277-128X, www.ijarcsse.com, peer reviewed, IF: 2.5, Vol 5, Issue 7, Page No: 376-379, July 2015.

Asbtract:

Technology inside the mobile phone manufacturing have live touching towards mixing of Near Field Communication (NFC) Technology captivated to cell phone business. Small estimates illustrate toward make easy next to 2014 more than 150 million mobile phone devices resolve survive NFC accomplished. The dynamic power following NFC be the public's still growing confidence taking place, along with require designed for stylish mobile phone functionality. In that paper tells about implementations of NFC to various field which means that the mobile commerce as wells as NFC group house safety, transport, healthcare is revenant to the customers resolve profit since improved production as well as the financial system resolve profit on or after original manufactured goods increase in addition to enlarged stuggle. This tendency provides a lot of easy behaviors designed for production as well as customers of mobile phone business toward accomplish each and every one variety of communication by means of NFC included lying on mobile phone procedure. The various profit in addition to possible use of NFC technology resolve keep on toward make the technology as well as move forward improvement during the relevance field.

7. **Ms.N. Vijayalakshmi et al.** - "Using Decision Tree Induction to Predict the Type of Eating Disorder", International Journal of Computer Science and Mobile Computing, www.ijcsmc.com, IF:5.258 DRJI: 5.93, Peer reviewed, ISSN: 2320-088X, Vol 4, Issue 7, Page No: 537-543, July 2015.

Abstract:

Decision Trees can be used to describe the features of a dataset. They can also be used to predict the class to which a specific data record belongs. In this paper, Information Gain applied to a patient database was used to induct decision trees. Three different kinds of decision trees were generated for the same data. The performance of each against the others was studied. The factors used for the study were grouped into three categories and the principal factors among each group were identified. Based on the determining factors under each category, a prediction model was created to predict the type of eating disorder to which the patient could be related based on his symptoms. The accuracy of the model was also measured. Frequent item set mining and association rule mining were used to discover significant facts on patient tendencies over the period of study.

8. **Ms. N. Vijayalakshmi et al.** - "Knowledge Discovery from Breast Cancer Database", IOSR Journal of Biotechnology and Biochemistry (IOSR-JBB), www.iosrjournals.org, IF: 1.512 ISSN 2455-264X, Vol 1, Issue 5, Page No: 1-5, Jul-Aug 2015.

Abstract:

In this paper, we study various factors leading to breast cancer and also a few symptoms that act as biomarkers for the occurrence of breast cancer in women. Totally 18 factors are taken for study. Statistical techniques are used to analyze the influence of various factors towards the disease and test for significance of factors is also done. Besides association rule mining is attempted to generate possible factors that may lead to breast cancer. An attempt to classify the given dataset using information gain techniques and CHAID technique was done. Clustering was also done to predict the occurrence of breast cancer. The results show that there is more possibility of developing breast cancer among married working women who have breast fed less than 2.5 years in total.

9. **Dr.M. Manimekalai and Ms.S. Regha** – "Hadoop Vs Big Data", International Journal of Recent Advances in Multidisciplinary Research, www.ijramr.com, peer reviewed, IF:3.95, ISSN 2350-0743, Vol 2, Issue 8, Page No: 0656-0661, Aug 2015.

Abstract:

Due to the advent of new technologies, devices and communication means like social networking sites, the amount of data produced by mankind is growing rapidly every year. The amount of data produced by us from the beginning of time till 2003 was 5 billion gigabytes. If you pile up the data in the form of disks it may fill an entire football field. The same amount was created in every two days in 2011, and in every ten minutes in 2013. This rate is still growing enormously. Though all this information produced is meaningful and can be useful when

processed, it is being neglected. 90% of the world's data was generated in the last few years. Big data means really a big data, it is a collection of large datasets that cannot be processed using traditional computing techniques. Big data is not merely a data, rather it has become a complete subject, which involves various tools, techniques and frameworks. Hadoop is an open-source framework that allows to store and process big data in a distributed environment across clusters of computers using simple programming models. It is designed to scale up from single servers to thousands of machines, each offering local computation and storage.

- 10. Ms.R. Indra et al.** – “Identity Identification and Contactless Technology Using Near Field Communication(NFC)”, International Journal of Emerging Research in Management & Technology, www.ijermt.net, IF: 1.492, peer reviewed, ISSN: 2278-9359, Vol 4, Issue 8, Page No: 162-171, Aug 2015.

Abstract:

The world of electronics further more each and every one further change from one electrical device to all the flexible devices, by moving as of device to network devices. Alternatively, user does not tolerate the complication in adding to struggle of establish a network of relations between devices along with each other. Therefore we know how to set several network functions and handle it in the PC world, other than not within the world of electronics. By means of the Near Field Communication – Interface Protocol (NFCIP-1), according to which user of electronic procedure, which give the use of protected way of communication between a variety of devices devoid of effort is considerable academic in the formation of their own network concept is simple striking. According to communicate between two devices, as well as bring them together, with Protocol NFCIP-1 and the wireless network to compact with them in the peer mild and here is the exchange of configuration data using NFC, and here you cannot continue with the devices, some of the longer and faster than protocols such as Bluetooth or wireless Ethernet (Wi-Fi).

- 11. Ms.R. Indra et al.** – “Near Field Communication in Mobile Technology”, International journal of innovative science, engineering and technology, ISSN: 2348-7968, www.ijiset.com, peer reviewed, IF: 4.332, Vol 2, Issue 8, Page No: 363-368, Aug 2015.

Abstract:

Near Field Communication (NFC) is a wireless short-range communication technology that works on the basis of existing standards of the Radio Frequency Identification (RFID) infrastructure. This technology allows data transfer by putting two devices close to each other. This paper gives various modes of operation in NFC which means that reader/writer, peer-to-peer, and card emulation and its application. In combination with NFC-capable Smartphone, it enables contactless transactions, in particular services for mobile payment. NFC integrates wireless payment and tag reading in mobile phones along with peer-to-peer communication. It can quickly setup a Bluetooth or a WLAN connection with a simple swipe. The intention of this paper is to describe basic characteristics and benefits of the technology and to present various

use cases. Both existing NFC applications and possible future scenarios are explained in this context.

- 12. Ms.R. Indra et al.** – “Credit Transfer in Mobile Communication Using NFC”, International journal of advanced research in information and communication engineering, www.ijarcsa.org, IF:1.307, peer reviewed, ISSN(Online): 2321-8762, ISSN (Print): 2321-8940, Vol 3, Issue 9, Page No: 1-5, Sep 2015.

Abstract:

Near field communication is one of the secure methods and plays an important role in many issues. In upcoming years the NFC technology can offer an important contribution in various fields, particularly payments and money transactions. In this paper focused on NFC technology based on peer-to-peer mode operations using credit transfer among mobile phones. It demonstrates the NFC availability for secure and easy communications as well as authentication in mobile applications. In this paper based on various technologies such as NFC is related to android mobile phones and Bluetooth technologies because to improve the Secure communications among mobile devices.

- 13. Ms.S. Hemalatha et al.** – “Developing Algorithm for Aggregation of Key Exchange Management in Wireless Sensor Network”, International journal of advanced Technology in Engineering and Science, www.ijates.com, (refereed) IF: 2.870, ISSN: 2348-7550, Vol 3, Issue 1, Page No: 397-407, Nov 2015.

Abstract:

Data Aggregation is an effective technique in Wireless Sensor Network (WSN) because it reduces the number of packets to be sent to sink and increases the lifetime of sensor network by aggregating the similar packets. This technique uses cluster method and clustering has been shown to improve network lifetime, reduce network traffic and the contention-for the channel. There are certain drawbacks in the cluster method. The master node is a single point of failure and if a master node fails then the entire sub network fails. To make a WSN successfully operate mater failures or malicious attacks are to be avoided. This paper investigates disparities between mathematical security and practical security in wireless sensor networks. This paper proposes a key exchange management scheme that enables two users for exchanging a key securely and that key can be used for sequent encryption of messages. A Sande-Tukey Algorithm is developed for splitting sensor nodes to provide the key. Especially this technique is used to aggregate the total computation outputs and to identify the total number of failures within the environment.

- 14. Ms.V. Mathimalar and Ms.S. Hemalatha et al.** – “Secure Data Aggregation using Efficient Key Management Technique in Wireless Sensor Network”, International journal of advanced Technology in Engineering and Science, IF: 2.870, www.ijates.com, ISSN: 2348-7550, Vol 3, Issue 1, Page No: 414-424, Nov 2015. (repetition of previous article)
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Abstract:

Data Aggregation is an effective technique in Wireless Sensor Network (WSN) because it reduces the number of packets to be sent to sink and increases the lifetime of sensor network by aggregating the similar packets. This technique uses cluster method and clustering has been shown to improve network lifetime, reduce network traffic and the contention-for the channel. There are certain drawbacks in the cluster method. The master node is single point of failure and if a master node fails then the entire sub network fails. To make a WSN successfully operate mater failures or malicious attacks are to be avoided. This paper investigates disparities between mathematical security and practical security in wireless sensor networks. This paper proposes a key exchange management scheme that enables two users for exchanging a key securely and that key can be used for sequent encryption of message. A Sande-Tukey Algorithm is developed for splitting sensor nodes to provide the key. Especially this technique is used to aggregate the total computation outputs and to identify the total number of failures within the environment.

- 15. Dr.M. Manimekalai et al.** – “Implementing Iris in the Railway Control Office Application for Secure Saas in Cloud Environment”, International Journal of Engineering Research and Applications, www.ijera.com, IF:1.69, ICV:5.09, ISSN: 2248-9622, Vol 5, Issue 12(Part 4), Page No: 42-47, Dec 2015.

Abstract:

Technology plays a vital role in each and every part of the world. In particular “Cloud” computing – a moderately recent term, characterizes the path to develop the advancement in the world of computer science. Further, Cloud provides an affordable environment for its users through different forms of services such as SaaS (Software as a service), PaaS (Platform as a service), and IaaS (Infrastructure as a Service). Cloud computing is also an Internet-based computing where a large pool of systems are connected in private or public networks, and provide dynamically scalable infrastructure for application data as well as file storage. Security of Cloud computing is an evolving sub-domain of network security, computer security and information security. In spite of its advantages, Cloud environment has many security flaws such as loss of important data, data leakage and something related to cloning, resource pooling etc. Security of Cloud Computing is an emerging area for study. It includes several security and privacy issues with challenges and solutions for many security issues of cloud computing. The Control Office Application (COA) is the latest addition to train operations related IT application of Indian Railways. Along with the Freight Operations Information System (FOIS), COA has led to a complete transformation in train operations and facilitates all information on train operations being computer generated. It is this application that feeds the National Train Enquiry System(NTES) which provides passengers with up to date information on train running. COA also provides train operations information to FOIS and ICMS. The objective of the Indian Railways is to further improve the operations by using technological aids that enable quicker data capture and intelligent applications that provide better planning and forecasting tools. To

overcome these issues, in Cloud computing, we can use SaaS (Software as a service). In this paper, we have proposed a new IRIS algorithm to authenticate the users of COA software in the cloud environment.

- 16. Ms.V. Vetriselvi et al.** - “ Protocol analysis to prevent storm attacks in 3g mobile networks”, International Journal for Scientific Research & Development, www.ijssrd.com, IF: 2.39 peer reviewed, ISSN: 2321-0613, Vol 3, Issue 10, Page No. 90-92, Dec 2015.

Abstract:

The advent of mobile smart phones has led to a surge in numerous applications with a lot of network traffic. This in turn leads to signal storm attacks from malicious users, who disrupt the system by creating signaling storms. Malware attacks are quickly becoming a major security concern due to the advent of smart mobile devices and the increasing capacity and use of mobile networks for internet access. The increasing number of host mobile malware adds to the problem. The infected devices cause a cascading effect creating signaling and network disruptions both deliberately and also due to malicious attacks. A signaling storm is one where the users are denied service by making huge attacks on the resources of the system either directly or indirectly taking control of other nodes in the network and sending huge amounts of request signals. This causes flooding, identity problems, injection attacks etc. The purpose is to detect such signaling storms in the first place. Next using the proposed hybrid Radio Resource protocol such attacks should be blocked and the malicious node should be removed from the network. The revocation will show sufficient congestion relief in the network traffic.

- 17. Ms.R. Indra et al.** – “An Efficient Protocol for Predicting User Behaviour using Call Detail Data”, International Journal for Scientific Research & Development, www.ijssrd.org, , peer reviewed, IF: 2.39, ISSN(Online): 2321-0613, Vol 3, Issue 10, Page No: 1120-1122, 2015.

Abstract:

Wireless Mobile devices has led to the explosion of the computing world. This huge information can be utilized by observing the mobile network’s behavior. The big data thus generated in the mobile networks enable us to gain useful insights into the user patterns by using big data analysis techniques and computing techniques. The proposed model introduces user data set information, data analysis techniques to categorize the data set in the network communication into two types, one is user based and the other one is network oriented. The essential data is then computed into by the telecommunication operators who are facing the tremendous challenge to provide satisfactory service to mobile users with varying QoS requirement. Thus by including high volume media transmission, huge amount of machine to machine(M2M) connectivity the data is summarized and reviewed to form temporal and spatial analysis to data mining and statistical test. The call measurement and call detail record, respectively, to understand the base station behavior. The users behavior is revealed and predicted by comparing the base stations location and real-world map and determine the behavior of the users.

- 18. Ms.R. Indra** et al. - “An Analysis of Rule based Mining for Protein Phosphorylation”, International Journal for Scientific Research & Development, www.ijssrd.com, peer reviewed, IF: 2.39, ISSN(Online): 2321-0613, Vol 3, Issue 10, Pg. No. 1117-1119, 2015.

Abstract:

The study of proteins and its structure is a vast and complex subject. Earlier there has been lots of effort to classify and categorize the proteins structure. The focus of the current study is to generate rules based on information extraction models using data mining techniques. The architecture should not have computational overheads and the rule-based Information Extraction engine should implement all the features and display the patterns in a consistent mode. In normal information extraction networks, it tends to transmit rules in response to extracellular protein structure stimuli and other intracellular balance changes. The current work focuses on protein phosphorylation information, but the IE pipeline based model architecture can be instantly ported to the extraction of types other than phosphorylation. The rules generated are shown as graphs for analysis purposes.

- 19. Ms.V. Mathimalar** et al. – “Energy Efficient Target Tracking and Data Collection in Wireless Sensor Network”, International Journal of Applied Engineering Research, www.ripublication.com, ISSN: 0973-4562, SJR 0.13, Vol 10, Issue 82, Page No: 252-261, 2015.

Abstract:

Target tracking is the most important applications in wireless sensor network. A target prediction scheme is derived from kinematics rules and theory of probability which improved the energy efficiency. Face tracking framework identifies the movements of a target with polygon tracking. However, target tracking energy-efficiency is not sufficient for tracking applications. And, the target does not go behind the predictable path to maintain the energy efficiency of the tracking. Routing protocol in wireless sensor network is designed with data integrity and delay differential services. Routing algorithm is used to select the path for communicating the data in networks. Integrity and delay appropriation improves the throughput to communicate sensed data to the corresponding sink. But, low delay and high data integrity fails to attain at the same time. In this work, a high energy efficient and maximal throughput on sensor node data communication aims to attain better quality of service.

- 20. Ms.S. Hemalatha, et al.** – “An Empirical Validation of Effort Estimation Techniques”, International journal of Applied Engineering Research, www.ripublication.com/ijaer.htm, ISSN: 0973-4562, SJR 0.13, Vol 10, Issue 82, Page No: 714-718, 2015.

Abstract:

The main endeavor of software development is to produce optimal software efficiently and effectively. The scientific study of methods, techniques and process for creating software is the science of software engineering. This can be achieved empirically. Software cost/effort estimation is still an open challenge. Many researchers have proposed various methods that

usually focus on point estimates. A software estimation model means a mathematical model that estimates software size (lines of code), effort, or schedule from various independent variables such as the number of screens and reports. Correctly estimating the effort required to develop software is of vital importance. Software estimation is the process of predicting the effort and cost required to develop software. The most critical activity in software project management during the inception phase of a project is to estimate the effort and cost needed to complete the project tasks. Organization must decide the allocation of valuable resources based on the prediction of unknown future. This paper will present a bird eye view on various tools to predict and analyze different techniques in cost and effort estimation.

- 21. Ms.S. Hemalatha et al.**– “Timely and Secure Data Transmission in Disruption Tolerant Networks”, International Journal of Scientific Progress and Research, www.ijSpr.com, IF: 3.963, peer reviewed, ISSN: 2349-4689, Vol 11, Issue 3, Page No: 147-152, 2015.

Abstract:

Disruption Tolerant Network (DTNs) include mobile devices. The most plan for that approach went to support cooperative caching in DTNs that make the sharing and coordination of cached information among multiple nodes and reduces information access delay. Conjointly produce the designedly cache information in an exceedingly set of network central locations (NCLs), which may be simply access by alternative nodes within the network. Propose AN economical methodology that ensures applicable NCL choice supported a probabilistic choice metric and coordinates multiple caching nodes to optimize the trade-off between information accessibility and caching overhead. The chosen NCLs attain high possibilities for prompt response to user queries with low overhead in network storage and communication. The utility-based cache replacement theme is wont to dynamically modify cache locations supported question history, and this theme achieves smart trade-off between the info accessibility and access delay. To introduce the novel caching protocol adjustive to the difficult for DTNs. To derive AN adjustive caching sure for every mobile node per its specific contact pattern with others, to limit the nice amount of data into its caches. During this manner, each the space for storing and therefore the contact opportunities are higher used. Intensive trace-driven simulations show that our cooperative caching protocol will considerably improve the performance of knowledge access in DTNs.

- 22. Ms.S. Hemalatha et al.** - “High Energy Efficient Target Tracking and Maximal Throughput in Wireless Sensor Network”, International Journal of Advance Research in Science Engineering, www.ijarse.com, IF: 2.83,(refereed) ISSN(Print): 2319-8346, E-ISSN: 2319-8354, Vol 5, Issue 1, Page No: 225-235, Jan 2016. (repeated article).

Abstract:

Target tracking is the most important applications in wireless sensor network. A target prediction scheme is derived from kinematics rules and theory of probability which improved the energy efficiency. Face tracking framework identifies the movements of a target with

polygon tracking. However, target tracking energy-efficiency is not sufficient for tracking applications. And, the target does not go behind the predictable path to maintain the energy efficiency of the tracking. Routing protocol in wireless sensor network is designed with data integrity and delay differential services. Routing algorithm is used to select the path for communicating the data in networks. Integrity and delay appropriation improves the throughput to communicate sensed data to the corresponding sink. But, low delay and high data integrity fails to attain at the same time. In this work, a high energy efficient and maximal throughput on sensor node data communication aims to attain better quality of service.

- 23. Ms.D.Meenakshi, Ms.T. Malathi and Ms.V. Karthika Devi** –“Semantic Web Technologies in SSL Based Cryptography Data Management”, International journal of engineering science invention Research and Development, Peer Reviewed, E-ISSN: 2349-6185, IF: 2.215, www.ijesird.com, Vol 2, Issue 9, Page No: 597-599, March 2016.

Abstract:

The Semantic Web aims to build a general framework that allows data to be communal and reused across applications, enterprises, and society boundaries. To use RDF as a flexible data model and use ontology to represent data semantics. Currently, relational models and XML tree models are widely used to represent structured and semi-structured data. But they offer limited means to capture the semantics of data. RDFS and OWL ontology's can effectively capture data semantics and enable semantic query and matching, as well as efficient data integration. In that paper we described the semantic web architecture and cryptography. Cryptography has two keys one is symmetric and asymmetric key. The both keys are used in SSL which is used to prevent data in web services and for authentication purpose. In this paper to over view for SSL and Semantic web. In cryptography has many algorithms RSA, DES, Blowfish etc.

- 24. Dr.M. Manimekalai et al.** – “Synchronous Security Authentication on Sharable Image”, International journal of Advanced Research in computer science and software engineering, www.ijarcsse.com, Peer reviewed, IF: 2.5, ISSN: 2277-128X, Vol 6, Issue 4, Page No: 974-979, Apr 2016.

Abstract:

Social Framework is an developing E-administration for content sharing locales(CSS). It is developing administration which gives a dependable communication, through this correspondence a new assault ground for data hackers; they can effectively abuses the data through these media. Some clients over CSS affects clients security on their person contents, where some clients keep on sending unwanted remarks and messages by taking advantage of the user's natural trust in their relationship network. By this security of the client data may be misfortune for this issue this paper handles the most prevalent issues and dangers targeting diverse CSS recently. This proposes a security arrangement Forecast and access confinements along with blocking plan for social locales utilizing data mining techniques. To perform this,

the structure uses APP (Access Policy Prediction) and Access control Framework by applying BIC calculation (Bayesian Data Criterion).

- 25. Dr.M. Manimekalai et al.**– “Optimal Location Privacy Preservation Model in Wireless Sensor Network”, International journal of advanced computing engineering and application, www.iraacst.org/ijacea/ , peer reviewed, IF: 0.675, ISSN: 2319-281X, Vol 5, Issue 3, Page No: 17-21, May-June 2016.

Abstract:

Perserving information confidentiality is a basic issue for wireless sensor networks. While existing security arrangements (e.g., encryption) could ensure the information content, they can't secure against heading based traffic investigation. Preserving directional traffic security is a testing issue for wireless sensor networks, as the ordinary methodologies, for example, activity cushioning and routing control are normally extremely asset expending. This paper researches the viability of security protecting instruments and looks for an ideal answer for safeguarding security in an asset compelled environment. It displays a novel protection demonstrate that describes the application particular effect of example disclosure. By means of this security demonstrate, the protection conservation issue is detailed as a streamlining issue, where ideal directing plans are determined. Through hypothetical investigation and recreation acceptance, we assess the execution of the optimal privacy preservation routing plan and exhibit its trade off in protection safeguarding and routing effectiveness.

- 26. Dr.M. Gomathy et al.** – “Study on Security Frameworks and Data Protection Techniques for Public Cloud Environment”, ARPN journal of engineering and applied sciences, www.arpnjournals.com, IF: 0.765, SJR: 0.2, Peer reviewed, ISSN: 1819-6608, Vol 11, Issue 9, Page No: 5933-5939, May 2016.

Abstract:

Cloud computing provides computing resource in an on-demand manner. It is provisioned resources from huge data centers situated in different geographical locations in the world. It mainly supports small and medium scale enterprises to startup their business in globally. It has many advantages in resource provisioning and other services but it also has some security related problems. Cloud enables outsourced computing. The nature of outsourced computing brings up many security issues in cloud environment. Due to the security issues in cloud, users are not willing adopt the cloud. This paper presents an elaborated study on different security framework and data protection techniques in cloud environment. Each framework works on their functionality and address security issues in public cloud environment. Finally, paper discusses results of each framework and data protection techniques.

- 27. Dr.K. Menaka, Dr.K. R. Subramanian et al.** – “Secure Message Transfer Using DNA Sequences”, Journal of Computational Intelligence in Bio informatics, www.ripublication.com, ISSN: 0973-385X, Vol 9, Issue 1,Page No: 1-6, 2016
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Abstract:

Cryptography using DNA sequences is a relatively new standard which has fascinated huge significance in the field of information security. With the Strange availability of information in DNA sequences, it is possible to effectively make a secure system. Though many algorithms have been developed for hiding the data, DNA sequence based data encryption seems to be a promising approach for gratifying the current information security needs. In this paper, an algorithm using DNA sequences for data hiding is proposed and discussed for secure data transmission and reception.

- 28. Ms.V. Mathimalar et al.** – “A Decision Tree Classification Analysis for Diabetes”, International journal of Scientific Research & Development, www.ijssrd.com, IF: 2.39, peer reviewed, ISSN (Online): 2321-0613, Vol 1, Issue 11, 2016.

Abstract:

Diabetes has become a modern day life style disease affecting millions of people around the world. Data mining is growing in relevance to solving real world problems and hence this can be applied to the diabetes problem as well. The study proposes to use the UCI repository PIMA Indians Diabetes dataset and decision tree algorithms like LAD, modified or hybrid ADT and J48 tree. The decision tree based classifier model study includes various parameters like computational overhead, features, efficiency and accuracy by means of the nodes selected. This hybrid decision tree model comparison enables to accurately classify the diabetes dataset and help the people providing treatment as well as those suffering from the disease.

Department of English

1. **Ms.M. Sudha** – “Historical and Imaginative Characters turn out to be great Fictional Characters in Kalki’s Ponninyin Selvan translated by C.V.Karthick Narayan”, HERMES - An International Biannual Literary Research Journal, ISSN: 0975-3516, Vol 8, Issue 2, Oct 2015.

Abstract:

Twentieth century Tamil historical novel written by Kalki Krishnamurthy and it is translated by C.V. Karthick Narayan has five volumes. This work narrates the story of Arulmozhiarman (later crowned as Raja Raja Chola I), one of the kings of the Chola Dynasty during the 10th - 11th century CE period. Ponninyin Selvan is a historical novel which centers on a number of real historical characters and incidents. Kalki aptly turns the historical characters to be the interesting fictional characters.

Department of Management Studies

1. **Dr.J. Francis Mary and Ms.G. Rathika** - “Environmental Accounting and Firm Profitability”, International journal of Business Intelligence and Innovations, peer reviewed, ISSN: 2348-4705, Vol 1, Issue 1, Special Issue Page No: 216-218, Sep 2014.

Abstract:

Accounting for environment helps in accurate assessment of costs and benefits of environmental preservation measures of companies (Scheltegger, 2000). It provides a common framework for organizations to identify and account for past, present and future environmental costs to support managerial decision-making, control and public disclosure (KPMG & UNEP, 2006).

2. **Dr.J. Francis Mary and Ms.G. Rathika** - “The single index model and the construction of optimal portfolio with CNXPharma scrip”, International journal of management, www.iaeme.com, IF(2014): 7.2230, Peer reviewed, ISSN(Print): 0976-6502, ISSN(Oline): 0976-6510, Vol 6, Issue 1, Page No: 87-96, Jan 2015.

Abstract:

Risk and return plays an important role in making any investment decisions. Decision include Investment should be done or not and which securities should be included in portfolio. Determining efficient portfolios within an asset class(e.g., stocks) can be achieved with the Single index (beta) model proposed by Sharpe. Sharpe’s single-index model was applied by using the monthly closing prices of 10 companies listed in NSE and CNX PHARMA price index for the period from September 2010 to September 2014. From the empirical analysis it can be concluded that out of 10 companies only one company is selected for investment purpose on the basis of Cut-off point which is -0.11182.

3. **Dr.J. Francis Mary et al.** – “Investors’ Risk Perception In Share Trading”, Indo global journal of applied management science, <http://www.kongujournals.com/igjams.php> ISSN: 2320-7892, Vol 3, Issue 1, Page No: 109-113, Apr 2015.

Abstract:

The Indian capital market has been growing tremendously with the reforms of the industrial policy, public sector, financial sector and new economic policies of liberalization, deregulation and restructuring. Given the sweeping changes taking place in the Indian stock market, it is imperative to conduct a study on investors, their risk and return expectations, evaluation criteria and reaction to different market conditions.

This article deals with the nature of relationship between the investors’ acceptable levels of risk and expected annual rates of return, to ascertain the manner in which individual investors perceive risk in relation to various investment alternatives and to develop a framework within which the investors’ risk profile can be viewed.

4. **Dr.J. Francis Mary et al.** - “An Examination on Students Perception of Employability Skills: Voice from Non Engineering Graduates in Coimbatore Region, Tamil Nadu”, International Journal of Business and Administration Research Review, www.ijbarr.com Global IF: 0.657 E-ISSN: 2347-856X, ISSN: 2348-0653, IF: 3.853, Peer reviewed, Listed & Indexed, Vol 1, Issue 1, Page No: 277-281, March 2016.

Abstract:

The study examines the perceptions, attitudes and orientations of under graduate students to their future work, career and employability. The employability of graduates has dominated much educational and economic policy over the past decade. The development of mass higher education has intersected with the shift towards a so called knowledge-driven or post-industrial economy. The knowledge-driven economy is said to require individuals with the types of knowledge, skill and creative potential who can meet the challenges of a global economy characterized by rapid change. Increasingly, individuals can no longer expect a ‘job for life’, whereby their career is anchored around single job and organization. Employees instead have to take a more flexible and proactive approach to their working lives, involving the management of their own employability. The major objectives of the study is to find the pre-requisites for the student employability in current market scenario, factors like personality traits and subject knowledge would be assessed to know which would be the area of focus and understanding the student perceptions on employability.

5. **Dr.J. Francis Mary et al.** – “ A Study on Competency Mapping To Enhance Employability Skills of Arts and Science Students in Tamil Nadu”, International Journal of Management and Social Science Research Review, www.ijmsrr.com IF:0.454, Peer Reviewed & Indexed journal, E-ISSN: 2349-6746, ISSN: 2349-6738, Vol 1, Issue 5, Page No: 226-231, May 2016.

Abstract:

The purpose of this study was to investigate Arts and Sciences students’ employability skills as they are perceived. The study also examined if there were any differences in perceptions on employability skills among students on assigned variables. Data for this study were collected via validated and reliability tested questionnaire. Analysis of Variances (ANOVA) was used, and the results showed that there were significant differences among participants on Arts and Sciences: coping with Collaboration, understanding, and interpersonal relationship for the advantage of students from Science College.

Department of Mathematics

1. ***Ms. S .Vidhyalakshmi &Mr. M. A. Gopalan & Ms. A. Kavitha - “On A Family of D(1) Strong Rational Diophantine Quadruples”, International Journal of Innovative Research and Review, www.cibtech.org/jirr.htm, ISSN: 2347-4424, Vol 2, Issue 3, Page No: 8-12, Sep 2014.

Abstract:

This paper concerns with the study of constructing a family of strong rational Diophantine quadruples (a,b,c,d) such that the product of any two elements of the set added with one is a perfect square.

2. ***Dr. S .Vidhyalakshmi & Dr. M. A. Gopalan & Ms. A. Kavitha-“Observations on the Non-Homogeneous Sextic Equation with Six Unknowns $x^6 - y^6 - 2z^3 = (k^2 + s^2)^{2n}T^4(w^2 - p^2)$ ”, International Journal of Advanced Research in Science, Engineering and Technology, www.ijarset.com, IF: 3.043, Peer Reviewed, ISSN: 2350-0328, Vol 1, Issue 5,Pg No. 259-261, Dec 2014.

Abstract:

The sextic non-homogeneous equation with six unknowns represented by the Diophantine equation $x^6 - y^6 - 2z^3 = (k^2 + s^2)^{2n}T^4(w^2 - p^2)$ is analyzed for its patterns of non-zero distinct integral solutions are illustrated. Various interesting relations between the solutions and special numbers namely polygonal numbers, Pyramidal numbers, Jacobsthal numbers, Jacobsthal- Lucas number are exhibited.

3. **Dr. S .Vidhyalakshmi & Dr. M. A. Gopalan & Ms. A. Kavitha & Ms. D. Mary Madona-**“On the Binary Quadratic Diophantine Equation $x^2 - 3xy + y^2 + 33x = 0$ ”, International Journal of Scientific Engineering and Applied Science, www.ijeas.com, IF: 3.466, peer-reviewed, ISSN: 2395-3470, Vol 1, Issue 4, Page No: 222-225, June 2015.

Abstract:

The binary quadratic equation $x^2 - 3xy + y^2 + 33x = 0$ represents a hyperbola. In this paper we obtain a sequence of its integral solutions and present a few interesting relations among them.

4. **Dr. M. A. Gopalan & Ms. A. Kavitha. & Ms. G. Thamaraiselvi-**“Observation on the Biquadratic Equation with Five Unknowns $(x - y)(x^3 + y^3) = (2k^2 + 2k + 2)(X^2 - Y^2)w^2$ ”, International Journal of Multidisciplinary Research and Development, www.allsubjectjournal.com, IF: 3.762, Peer Reviewed, E-ISSN: 2349-4182, P-ISSN: 2349-5979, Vol 2, Issue 6, Page No: 333-337, June 2015.

Abstract:

We obtain infinitely many non-zero integer quintuples (x,y,X,Y,w) satisfying the Bi-Quadratic equation $(x - y)(x^3 + y^3) = (2k^2 + 2k + 2)(X^2 - Y^2)w^2$. Various interesting relations between the solutions and special numbers, namely, Polygonal numbers, Pronic numbers, Pyramidal numbers, Stella Octangular numbers, and octahedral numbers are exhibited.

5. **Dr.M. A. Gopalan & Ms. A. Kavitha & Ms. R. Kiruthika-** “Observations on The Biquadratic Equation with Five Unknowns $2(x - y)(x^3 + y^3) = (1 + 3k^2)(X^2 - Y^2)w^2$ ”, International Research Journal of Engineering and Technology (IRJET), www.irjet.net, Peer Reviewed, IF: 3.215, SJIF:4.45 E-ISSN: 2395-0056, ISSN (Print): 2395-0072, Vol 2, Issue 8, PageNo: 1562-1573, June 2015.

Abstract:

We obtain infinitely many non-zero integer quintuples x,y,X, Y, w satisfying the biquadrate equation with five unknowns $2(x - y)(x^3 + y^3) = (1 + 3k^2)(X^2 - Y^2)w^2$. Various interesting relations between the solutions and special numbers, centered polygonal & pyramidal numbers are exhibited.

6. **Dr. S .Vidhyalakshmi & Ms. A. Kavitha & Dr. M. A. Gopalan** –“ On The Integral Points on The Bi-Quadratic Equation with Six Unknowns $(x^4 - y^4) = 4(X^3 + Y^3)z + 12w^2(x^2 - y^2)$ ”, Impact Journals Science and Technology, ISSN: 0973-8290, Vol 9, Issue 3 Page No:1-6, 2015.

Abstract:

The Bi-quadratic Equation with six unknowns given by $(x^4 - y^4) = 4(X^3 + Y^3)z + 12w^2(x^2 - y^2)$ is analyzed for its patterns of non zero distinct integral solutions. A few interesting relations between the solutions and special polygonal numbers are exhibited.

7. **Dr. S .Vidhyalakshmi & Dr. M. A. Gopalan & Ms. A. Kavitha-**“Integer solutions of The Eighth Degree Equation with Seven Variables $(x^2 - y^2)(4x^2 + 4y^2 - 6xy) = 2(w + P)(T + S)z^6$ ”, International Journal of Mathematical Archive, www.ijma.info, Peer Reviewed, SJIF: 4.091, ISSN: 2229-5046, Vol 6, Issue 8, Page No: 1-4, Aug 2015.

Abstract:

The non-homogeneous octic equation with five unknowns represented by the Diophantine equation $(x^2 - y^2)(4x^2 + 4y^2 - 6xy) = 2(w + P)(T + S)z^6$ is analyzed for its patterns of non-zero distinct integral solutions and four patterns of integral solutions are illustrated. Various interesting relations between the solutions and special numbers, namely, Pyramidal numbers, Pronic numbers, polygonal numbers, fourth, fifth and sixth dimensional figurate numbers are exhibited.

8. **Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan & Ms.J.Shanthi** – “Observation on the Biquadratic Equation with Three Unknowns $x^2 - 4xy + 11y^2 = 11z^4$ ”, Universe of emerging

technologies and science, www.uniets.com, IF: 0.272, peer reviewed, ISSN: 2349-655x, Vol 2, Issue 8 Aug 2015.

Abstract:

We present different patterns of non-zero distinct integer solutions to the non-homogeneous biquadratic equation with three unknowns given by $x^2 - 4xy + 11y^2 = 11z^4$. A few interesting properties among the solutions are also given.

9. **S.Vidhyalakshmi, Dr.M.A.Gopalan & Ms.J.Shanthi** –“On Interesting Integer Triple”, International journal of emerging technologies in engineering research, www.ijeter.everscience.org, IF: 4.225, peer reviewed, ISSN: 2454-6410, Vol 3, Issue 2, Page No: 57-59, Nov 2015.

Abstract:

We search for non-zero distinct integer triples (a_0, a_1, a_2) such that each of the expressions $a_0, a_1, a_0 + a_2, a_1 + a_2$ is a perfect square.

10. **Dr.K.Meena, Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan & Ms.J.Shanthi**–“Observations on the Quartic Equation with Six Unknowns $(x^3 - y^3)z = (w^2 - p^2)R^2$ ”, Global journal of pure and applied mathematics, www.ripublication.com/gjpam.htm, IF:0.19, ISSN: 0973-1768, Vol 11, Issue 3, Page No: 1435-1444, 2015.

Abstract:

We present different patterns of non-zero distinct integer solutions to the homogeneous quartic equation with six unknowns given by $(x^3 - y^3)z = (w^2 - p^2)R^2$. A few interesting properties among the solutions are also given.

11. **Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan & Ms.J.Shanthi et al.** –“An Interesting Diophantine Problem”, International journal of research in engineering and applied science, www.euroasiapub.org, IF: 5.981, ISSN: 2249-3905, Vol 5, Issue 12, Page No: 93-98, Dec 2015.

Abstract:

This paper concerns with an interesting Diophantine problem and aims at determining explicitly three distinct non-zero integers a, b, c such that the sum of any pair of them is a perfect square and twice the sum of the three integers is a perfect cube. Different methods have been considered to obtain the three required integers a, b, c . This shows that there are many triples in integers, each satisfying the considered kind of pattern among its members.

12. **Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan, Ms.J.Shanthi and S.Sofia Christinal.** –“An Interesting Integer Triple-II $a_0+a_1=p^2, a_0+a_2=q^2, a_1+a_2=r^2, a_0+a_1+a_2=7s^3$ ”, Open journal of applied & theoretical mathematics, <http://ojs.us/ojsatm/>, ISSN: 2455-7102, Vol 1, Issue 1, Page No: 74-78, Dec 2015.

Abstract:

We search for infinitely many non-zero integer triples (a_0, a_1, a_2) such that each of the expressions $a_0+a_1, a_0+a_2, a_1+a_2$ is a perfect square and sum of the above three expressions is even times cubical integer.

- 13. Dr. S .Vidhyalakshmi & Dr. M. A. Gopalan & Ms. A. Kavitha**–“An application of second order Ramanujan numbers”, Journal of Computing Technologies, <http://jctjournals.com/> SJIF: 3.017, ISSN:2278-3814, Vol 4, Issue 8, Page No: 40-41, 2015.

Abstract:

We search for four non-zero distinct integers such that the sum of any two of them is a perfect square by applying triple coincidence among second order Ramanujan numbers.

- 14. Dr. S .Vidhyalakshmi & Dr. M. A. Gopalan & Ms. A. Kavitha**–“Integral Solutions of the Octic Equation With Five Unknowns $(x - y)(x^3 + y^3) = 4(w^2 - p^2)T^6$ ”, International Journal of Mathematics and its Applications, <http://ijmaa.in/> IF: 0.564, peer reviewed, ISSN: 2347-1557, Vol 3, Issue 4-A, Page No: 1-7, 2015.

Abstract:

The non-homogeneous octic equation with five unknowns represented by the Diophantine equation $(x - y)(x^3 + y^3) = 4(w^2 - p^2)T^6$ is analyzed for its patterns of non-zero distinct integral solutions and seven different patterns of integral solutions are illustrated. Various interesting relations between the solutions and special numbers, namely, Pyramidal numbers, Pronic numbers, Stella octangular numbers, polygonal numbers, four dimensional figurate numbers are exhibited.

- 15. Dr. S.Vidhyalakshmi, Dr. M.A. Gopalan & Ms. J. Shanthi and Ms. A. Rukmani** –“An Interesting Diophantine Problem on Triples-II”, International journal of current multidisciplinary studies, www.journalijcms.com, IF: 3.339, peer reviewed, ISSN: 2455-3107 Vol 2, Issue 2, Page No: 130-133, Feb 2016.

Abstract:

This paper concerns with an interesting Diophantine problem and aims at determining explicitly three distinct non-zero integers a, b, c such that $a + 2b = \alpha^2, a + 2c = \beta^2, b + c = \gamma^2$ and sum of the three integers is a perfect square. Different methods have been considered to obtain the three required integers a, b, c . This shows that there are many triples in integers, each satisfying the considered kind of pattern among its members.

- 16. Dr. S. Vidhyalakshmi, Dr. M.A. Gopalan & Ms. J. Shanthi** -“On the Diophantine Equation of Degree Ten with Six Unknowns $3(x^2 - y^2)^3 + 4T^6P^2(x^2 - y^2) = (z^4 - w^4)P^2$ International journal of innovative engineering and technology, www.ijiset.com, IF: 4.332, peer-reviewed, ISSN: 2348-7968, Vol 3, Issue 5, Page No: 397-399, May 2016.

Abstract:

The paper aims at determining non-zero distinct integer solutions to the Diophantine equation of degree ten with six unknowns given by $3(x^2 - y^2)^3 + 4T^6 P^2(x^2 - y^2) = (z^4 - w^4)P^2$. A few interesting relations among the solutions are also exhibited.

- 17. Dr.M.A.Gopalan & Ms.J.Shanthi** –“On the Non-homogeneous Cubic Equation with Five Unknowns $(a + 1)^2(x^3 - y^3) = (2a + 1)(z^3 - w^3) + 6a^2 p^2 + 2a^2$ ”, International journal of modern sciences and engineering technology, www.ijmset.com, IF: 3.094, ISSN: 2349-3755, Vol 3, Issue 5, Page No: 32-36, 2016.

Abstract:

An attempt has been made to determine all possible integer solutions satisfying the non-homogeneous cubic equation with five unknowns give $(a + 1)^2(x^3 - y^3) = (2a + 1)(z^3 - w^3) + 6a^2 p^2 + 2a^2$.

- 18. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan & Ms.J.Shanthi**- “On Non-Homogeneous Octic Equation with four Unknowns $x^2 = y^3 + z^5 w^3$ ”, International journal of advanced and innovative research, www.ijair.jctjournals.com, IF:0.349, peer reviewed, ISSN: 2278-7844, Vol 5, Issue 1, 2016.

Abstract:

The non-homogeneous octic equation with four unknowns represented by the diophantine equation $x^2 = y^3 + z^5 w^3$ is analyzed for its patterns of non-zero distinct integral solutions and six different patterns of integral solutions are illustrated.

- 19. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan & Ms.J.Shanthi et al.** –“On the Ternary CubicEquation $3(x^2 + y^2) - 2xy + 2(x + y) + 1 = 123z^3$ ”, International journal of advanced and latest research in engineering science and technology, www.ijalrest.com, IF: 6.209, ISSN: 2456-0758, Vol 1, Issue 1, Pg. No.: Nil, 2016.

Abstract:

The ternary cubic Diophantine equation given by $3(x^2 + y^2) - 2xy + 2(x + y) + 1 = 123z^3$ is analyzed for its non-zero distinct integer points on it. Different patterns of integer points for the equation under consideration are obtained. A few interesting relations between solutions and special numbers are obtained.

- 20. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan & Ms.J.Shanthi** –“Gaussian Integer Solutions of $2(x^2 + y^2) = z^2$ »International journal of advanced and latest research in engineering science and technology, www.ijalrest.com, IF: 6.209, ISSN: 2456-0758, Vol 1, Issue 1, 2016.

Abstract:

The ternary quadratic Diophantine equation $2(x^2 + y^2) = z^2$ is considered and analysed for its Gaussian integer solutions. Also, knowing a solution, general formulas for generating sequence of Gaussian integer solutions for the above equation are presented.

- 21. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan & Ms.J.Shanthi et al.** –“A Connection between Polygonal Number and Special Rectangle”, International journal of advanced and latest research in engineering science and technology, www.ijalrest.com, IF: 6.209, ISSN: 2456-0758, Vol 1, Issue 1, 2016.

Abstract:

we make an attempt to find rectangles, for each of the area, semi perimeter and the perimeter are connected to a special polygonal number.

- 22. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan & Ms.J.Shanthi** –“Observation on the Biquadratic Equation with Five Unknowns $4x^3 + 4y^3 - 2x^2y - 2xy^2 = 23p^2(z^2 - w^2)$ Universal Journal of Mathematics, www.upro.org.in, IF: 0.254, Peer reviewed, ISSN: 2456-1312, Vol 1, Issue 2, Page No: 52-55, May 2016.

Abstract:

We present different patterns of non-zero distinct integer solutions to the non- homogeneous biquadratic equation with five unknowns given by $4x^3 + 4y^3 - 2x^2y - 2xy^2 = 23p^2(z^2 - w^2)$. A few interesting properties among the solutions are also given.

- 23. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan & Ms.J.Shanthi** – “A New Integer Sequence”, International Journal of recent trends in engineering & research, www.ijrter.com, IF: 3.344, Peer reviewed, ISSN(Online):2455-1457, Vol 2, Issue 6, Page No: 307-314, June 2016.

Abstract:

In this paper, a new integer sequence is developed by defining the recurrence relation $J_{n+2} = J_{n+1} + (k^2 + k)J_n$ with the initial conditions $J_0 = 0, J_1 = 1$. Various interesting relations among these numbers are exhibited. Also, Diophantine quadruples with property $D(k^{2n})$ are constructed. Some numerical examples are given.

- 24. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan & Ms.J.Shanthi** –“On Interesting Diophantine Problem”, International journal of multidisciplinary research and modern education, IF: 0.343, Peer reviewed, www.rdmodernresearch.org, ISSN(Online): 2454-6119, Vol 1, Issue 1, Page No: 1-3, 2015.

Abstract:

We search for non-zero distinct triples (such that each of the expressions is perfect square.

25. **Dr. S.Vidhyalakshmi, Dr. M.A.Gopalan & Ms.J. Shanthi** –“On the Cubic Equation with Four Unknowns $x^2 + 4z^2 = y^3 + 4w^3 + 6(x - y)^3$ ”, International Journal of mathematics trends and technology, IF: 1.355, Peer reviewed, <http://www.ijmtjournal.org>, ISSN: 2231-5373, Vol 20, Issue 1, Page No: 75-84, April 2015.

Abstract:

The sequences of integral solutions to the cubic equation with four variables are obtained. A few properties among the solutions are also presented.

26. **Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan & Ms.J.Shanthi and R.Karthika** –“Construction of Special Integer Triples”, International journal of applied research, www.allresearchjournal.com, IF: 5.2, Peer reviewed, ISSN(Online): 2394-5869, ISSN(Print): 2394-7500, Vol 2, Issue 2, Page No: 357-360, Jan 2016.

Abstract:

This paper concerns with interesting Diophantine problems on triples. A search is made on finding three non-zero distinct integers, namely a, b, c such that, each of the expressions $a+2b$, $b+c$ (or) $b-c$ is a perfect square and $a+2c$ is a cubical integer. Infinitely many such triples are obtained.

27. **Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan & Ms.J.Shanthi** –“Gaussian Integer Solutions for the Elliptic Paraboloid $x^2+y^2=10z$ ”, International journal of scientific engineering and applied science, www.ijseas.com, IF: 3.466, Peer reviewed, ISSN: 2395-3470, Vol 1, Issue 3, Page No: 303-307, June 2015.

Abstract:

The elliptic paraboloid represented by the ternary quadratic Diophantine equation $x^2+y^2=10z$ is considered and analysed for its Gaussian integer solutions. Also, knowing a solution, general formulas for generating sequence of Gaussian integer solutions for the above equation are presented.

28. **Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan & Ms.J.Shanthi and M.Bhuvaneshwari** -“On Bi-Quadratic Equation with Three Unknowns $10(x^2+y^2)-16xy=65z^4$ ”, International journal of research and current development, www.journalijrcd.com, Vol 1, Issue 2, Page No: 48-52, June 2015.

Abstract:

The ternary biquadratic non-homogeneous equation represented by the Diophantine equation $10(x^2+y^2)-16xy=65z^4$ is analysed for its patterns of non-zero distinct integral solutions. A few interesting relations between the solutions and special numbers are exhibited.

29. **Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan & Ms.J.Shanthi** –“ Gaussian Integer Solutions for the Elliptic Paraboloid $x^2+2y^2=4z$ ”, Internatioanl journal of engineering sciences and research

technology, www.ijesrt.com, IF: 3.785, Peer reviewed, ISSN: 2277-9655, Vol 4, Issue 7, Page No: 674-679, July 2015.

Abstract:

The elliptic paraboloid represented by the ternary quadratic Diophantine equation $x^2+2y^2=4z$ is considered and analysed for its Gaussian integer solutions. Also, knowing a solution, general formulas for generating sequence of Gaussian integer solutions for the above equation are presented.

- 30. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan & Ms.J.Shanthi-**“ A Connection between Rectangle and Dhuruva Numbers of Digits 3 and 5”, International journal of recent scientific research, www.recentscientific.com, IF: 5.971, Peer reviewed, ISSN: 0976-3031, Vol 7, Issue 2, Page No: 9234-9236, March 2016.

Abstract:

We search for rectangles such that $xy+k(x+y)+k^2=$ Dhuruva numbers of orders 3 and 5 respectively, in which x,y represent the length and breadth of the rectangle. Also, total number of rectangles satisfying the relation under consideration is also presented.

- 31. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan E.Premalatha and R.Sridevi** –“An Interesting Diophantine Problem on Triples –II”, Journal of computing technologies”, www.jctjournals.com, SJIF: 3.017, Peer reviewed, ISSN: 2278-3814, Vol 4, Issue 11, Page No: 18-19, 2015.

Abstract:

We search for three non-zero distinct integers a, b, c such that, if a non-zero integer is added to the sum of any pair of them as well as to their sum, the results are all squares.

- 32. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan & Ms.J.Shanthi** –“An Interesting Diophantine Problem”, Scholars Bulletin A multidisciplinary Bi-weekly journal, <http://schoarsbulletin.com>, Peer reviewed, ISSN(Online): 2412-897x, ISSN(Print): 2412-9771, Vol 1, Issue 7, Page No: 166-168, Oct 2015.

Abstract:

We search for non-zero distinct integer triples (a_0, a_1, a_2) such that each of the expressions a_0+a_1 , a_0+a_2 , a_1+a_2 , $2(a_0+a_1+a_2)$ is a perfect square.

- 33. Dr.M.A.Gopalan, N.Thiruniraiselvi and Sridevi** –“On the Ternary Cubic Equation $5(x^2+y^2)-8xy=74(k^2+s^2)z^3$ ”, Internatinal journal of multidisciplinary research and modern education, www.rdmodernresearach.org, Peer reviewed, ISSN(Online): 2454-6119, Vol 1, Issue 1, Page No: 317-319, 2015.

Abstract:

The ternary cubic Diophantine equation given by $5(x^2+y^2)-8xy=74(k^2+s^2)z^3$ is analysed for its non-zero distinct integer points on it. Different patterns of integer points for the equation

under consideration are obtained. A few interesting relations between solutions and special numbers are obtained.

- 34. Dr.M.A.Gopalan N.Thiruniraiselvi and R.Sridevi** -“Observation on the Biquadratic Equation with Five Unknowns $2(x^3+y^3)=19(z^2-w^2)p^2$ ”, Transactions on mathematics, www.fourin.org, ISSN: 2455-1856, Vol 2, Issue 1, Page No: 1-8, Jan 2016.

Abstract:

We obtain infinitely many non-zero integer quintuples (x,y,z,w,p) satisfying the bi-quadratic equation $2(x^3+y^3)=19(z^2-w^2)p^2$. Five different patterns of integer solutions to the above bi-quadratic equation are presented. A few interesting relations between the solutions and special numbers are obtained.

- 35. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan et al.** -“Construction of Irrational Gaussian Diophantine Quadruples”, International journal of engineering technologies and management research, www.ijetmr.com, IF: 1.745, Peer reviewed, ISSN: 2454-1907, Vol 1, Issue 1, Page No: 1-7, April 2015.

Abstract:

Given any two non-zero distinct irrational Gaussian integers such that their product added with either 1 to 4 is a perfect square, an irrational Gaussian Diophantine quadruple (a_0, a_1, a_2, a_3) such that the product of any two members of the set added with either 1 to 4 is a perfect square by employing the non-zero distinct integer solutions of the system of double Diophantine equations. The repetition of the above process leads to the generation of sequence of irrational Gaussian Diophantine quadruples with the given property.

- 36. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan V.Pandichelvi, P.Sivakamasundari, C.Priyadharsini**- “On the Negative Pell Equation $y^2=45x^2-11$ ”, International journal of pure mathematical science, www.scipress.com, Peer reviewed, ISSN: 2297-6205, Vol 16, Page No: 30-36, 2016.

Abstract:

The binary quadratic equation represented by the negative Pellian $y^2=45x^2-11$ is analysed for its distinct integer solutions. A few interesting relations among the solutions are also given. Further, employing the solutions of the above hyperbola, we have obtained solutions of other choices of hyperbolas, parabolas and special Pythagorean triangle.

- 37. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan E.Premalatha, S.Sofa christinal**-“On the Negative Pell Equation $y^2=72x^2-8$ ”, International journal of emerging technologies in engineering research, www.ijeter.everscience.org, IF: 4.225, Peer reviewed, ISSN: 2454-6410, Vol 4, Issue 2, Page No: 25-28, Feb 2016.

Abstract:

The binary quadratic equation represented by the negative pellian $y^2=72x^2-8$ is analysed for its distinct integer solutions. A few interesting relations among the solutions are also given. Further, employing the solutions of the above hyperbola, we have obtained solutions of other choices of hyperbolas, parabolas and special Pythagorean triangle.

- 38. Dr.K.Meena, Dr.M.A.Gopalan E.Bhuvanewari**–“On the Negative Pell Equation $y^2=60x^2-15$ ”, Scholars Bulletin a multidisciplinary Bi-weekly journal”, <http://scholarsbulletin.com>, Peer reviewed, ISSN(Online): 2412-897x, ISSN(Print): 2412-9771, Vol 1, Issue 11, Page No: 310-316, Dec 2015.

Abstract:

The binary quadratic equation represented by the negative pellian $y^2=60x^2-15$ is analysed for its distinct integer solutions. A few interesting relations among the solutions are also given. Further, employing the solutions of the above hyperbola, we have obtained solutions of other choices of hyperbolas, parabolas and special Pythagorean triangle.

- 39. Dr.K.Meena, Dr.S.Vidhyalakshmi C.Priyadharsini** –“On the binary quadratic Diophantine equation $x^2-5xy+y^2+30x=0$ ”, International journal of applied research, www.allresearchjournal.com, IF: 5.2, Peer reviewed, ISSN(Online): 2394-5869, ISSN(Print): 2394-7500, Vol 1, Issue 13, Page No: 789-792, Nov 2015.

Abstract:

The binary quadratic equation $x^2-5xy+y^2+30x=0$ represents a hyperbola. In this paper we obtain a sequence of its integral solutions and present a few interesting relations among them.

- 40. K.Meena, Dr.S.Vidhyalakshmi, S.Sofia Christinal** –“On the Binary Quadratic Diophantine Equation $x^2-4xy+y^2+9x=0$ ”, Journal of computing technologies, www.jctjournals.com, IF: 3.017, Peer reviewed, ISSN: 2278-3814, Vol 4, Issue 12, Page No: 41-42, 2015.

Abstract:

The binary quadratic equation $x^2-4xy+y^2+9x=0$ represents a hyperbola. In this paper we obtain a sequence of its integral solutions and present a few interesting relations among them.

- 41. Dr.K.Meena, Dr.S.Vidhyalakshmi, A.Rukmani**–“Observations on the Hyperbola $y^2=120x^2+1$ ”, Scholars Bulletin a multidisciplinary Bi-weekly journal, <http://scholarsbulletin.com>, Peer reviewed, ISSN(Online): 2412-897x, ISSN(Print): 2412-9771, Vol 1, Issue 9, Page No: 242-244, Nov 2015.

Abstract:

The binary quadratic equation representing the hyperbola $y^2=120x^2+1$ is analysed for its distinct integer solutions. A few properties among the solutions are presented Employing the

integral solutions of the quadratic equation under consideration, a special Pythagorean triangle is obtained.

- 42. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan, E.Premalatha, A.Rukmani-** “A Connection between Triangular Number and Frustum of the Cone”, Universal publishing and research organization, Peer reviewed, ISSN(Online): 2456-1312, Vol 2, Issue 2, Page No: 71-76, May 2016.

Abstract:

This paper concerns with the problem of obtaining the radii of the bottom and top circles of the frustum of the cone of given height ‘h’ in connection with the triangular number and the special characterization of the frustum of the considered cone.

- 43. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan, A.Rukmani-**“On the System of Double Diophantine Equations $a_0 - a_1 = q^2$, $a_0 a_1 \pm (a_0 - a_1) = p^2 + 1$ ”, Transactions on mathematics, www.fourin.org, ISSN: 2455-1856, Vol 2, Issue 3, Page No: 28-32, July 2016.

Abstract:

The system of double equations represented by $a_0 - a_1 = q^2$ and $a_0 a_1 \pm (a_0 - a_1) = p^2 + 1$ is analysed for its infinitely many integers solutions. A few examples are given. Some observations among a_0, a_1 are obtained.

- 44. Dr.K.Meena, Dr.S.Vidhyalakshmi, A.Rukmani** –“On the Negative Pell Equation $y^2 = 31x^2 - 6$ ”, Universe of emerging technologies and science, www.uniets.com, IF: 0.773, Peer reviewed, ISSN: 2349-655x, Vol 2, Issue 12, Dec 2015.

Abstract:

The binary quadratic equation represented by the negative pellian $y^2 = 31x^2 - 6$ is analysed for its distinct integer solutions. A few interesting relations among the solutions are also given. Further, employing the solutions of the above hyperbola, we have obtained solutions of other choices of hyperbolas, parabolas and special Pythagorean triangle.

- 45. Dr.K.Meena, Dr.S.Vidhyalakshmi C.Priyadharsini** –“On the System of Double Diophantine Equations $a_0 + a_1 = q^2$, $a_0 a_1 \pm 5(a_0 + a_1) = p^2 - 25$ ”, Open journal of applied & theoretical mathematics, <http://theojal.com>, IF: 3.41, ISSN: 2455-7102, Vol 2, Issue 1, Page No: 8-12, March 2016.

Abstract:

We search for infinitely many rectangles such that, in each rectangle, the semi perimeter is a square and the area minus five times its semi perimeter added with twenty five is a perfect square. A few numerical examples are given. Some observations are presented.

- 46. Dr.M.A.Gopalan, N.Thiruniraiselvi, K.Agalya**–“Solutions of the Homogenous Cubic Equation with Six Unknowns $(w^2 + p^2 - z^2)(w - p) = (k^2 + 2)(x + y)R^2$ ”, Jamal academic research journal: an Interdisciplinary, ISSN: 0973-0303, Special Issue (Feb 2016), Page No: 273-277.

Abstract:

We obtain finitely many non-zero integer sextuples (w,x,y,z,p,R) satisfying the cubic equation $(w^2+p^2-z^2)(w-p)=(k^2+2(x+y)R^2)$. A few interesting relations between the solutions and special polygonal numbers are obtained.

- 47. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan, E.Bhuvaneshwari** -“On the System of Double Diophantine Equations $a_0+a_1=q^2$, $a_0a_1\pm 4(a_0+a_1)=p^2-16$ ”, Jamal academic research journal: an interdisciplinary, ISSN: 0973-0303, Page No: 279-282, Special Issue (Feb 2016).

Abstract:

An attempt has been made to obtain infinitely many rectangles such that, in each rectangle, the semi perimeter is a square and the area minus four times its semi perimeter added with sixteen is a perfect square. A few numerical examples are given some observations are presented.

- 48. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan, N.Thiruniraiselvi**-“On the Generalized Fermat Equation $x^{2a+1} + y^{2a+1} = z^{2a}$ ”, Fundamental journal of mathematics and mathematical science, www.frdint.com, Peer reviewed, ISSN(Print): 2395-7573, Vol 5, Issue 1, Page No: 1-5, 2016.

Abstract:

This paper presents a method to determine the set of integer solutions to the generalized Fermat equation $x^{2a+1} + y^{2a+1} = z^{2a}$. Few interesting relations between the solutions are also given.

- 49. Dr.M.A.Gopalan, N.Thiruniraiselvi, Saradha kumar** -“On the Negative Pythagorean Equation $\frac{1}{x^2}, \frac{1}{y^2} = \frac{1}{z^2}$ ”, International journal of applied research, www.allresearchjournal.com, IF: 5.2, Peer reviewed, ISSN(Online): 2394-5869, ISSN(Print): 2394-7500, Vol 1, Issue 10, Page No: 687-688, Aug 2015.

Abstract:

Infinitely many non-zero distinct integer solutions for the negative Pythagorean equation $x^{-2} + y^{-2} = z^{-2}$ are presented. A few interesting properties among the solutions are also given.

- 50. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan, E.Premalatha, K.Agalya**-“An Interesting Diophantine Problem on Triples – III”, International journal of emerging technologies in engineering research, www.ijeter.everscience.org, IF: 4.225, Peer reviewed, ISSN: 2454-6410, Vol 3, Issue 2, Page No: 47-49, Nov 2015.

Abstract:

This paper concerns with an interesting Diophantine problem and aims at determining explicitly three non-zero distinct integers a, b, c such that, $a+b+N, a+c+N, b+c+N$ and $a+b+c+N$ is

a perfect square. A methods has been considered to obtain the three required integers a,b,c. This shows that there are many triples in integers, each satisfying the considered kind of pattern among its members.

- 51. Dr.K.Meena, Dr.M.A.Gopalan , E.Bhuvanewari, R.Preseena**–“On Quadratic Diophantine Equation with Five Unknowns $4w^2-x^2-y^2-z^2=t^2$ ”, International journal of advanced scientific research, www.newresearchjournal.com, IF(RJIF): 5.32, Peer reviewed, ISSN:2456-0421, Vol 1, Issue 2, Page No: 62-64, May 2016.

Abstract:

This paper aims at presenting general formulas for generating integer solutions of the quadratic equation in title based on its given integer solution.

- 52. Dr.K.Meena, Dr.S.Vidhyalakshmi E.Bhuvanewari, R.Preseena** –“On Ternary Quadratic Diophantine Equation $5(x^2+y^2)-6xy=20z^2$ ”, International journal of advanced scientific research, www.newresearchjournal.com, IF(RJIF): 5.32, Peer reviewed, ISSN:2456-0421, Vol 1, Issue 2, Page No: 59-61 May 2016.

Abstract:

The ternary homogeneous quadratic equation given by $5(x^2+y^2)-6xy=20z^2$ representing a cone is analysed for its non-zero distinct integer solutions. A few interesting relations between the solutions and special polygonal and pyramidal numbers are presented.

- 53. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan & Ms.J.Shanthi K.Agalya**–“On Interesting Triple Integer Sequences”, Scholars Bulletin A multidisciplinary Bi-weekly journal, <http://schoarsbulletin.com>, ISSN(Online): 2412-897x, ISSN(Print): 2412-9771, Peer reviewed, Vol 1, Issue 7, Page No: 169-171, Oct 2015.

Abstract:

We search for three non-zero distinct integers such that each of the triple $(x-y,z,x+y)$ forms Harmonic progression. A few interesting properties among the solutions are also presented.

- 54. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan, E.Premalatha, K.Agalya** –“An Interesting Diophantine Problem on Triples –I”, International archive of applied sciences and technology, IF: 0.876, Peer reviewed, ISSN(Online): 2277-1565, ISSN(Print): 0976-4828, Vol 7, Issue 1, Page No: 13-14, Mar 2016.

Abstract:

We search for three non-zero distinct integers a, b, c such that, if a non-zero integer is added to the sum of any pair of them as well as to their sum, the results are all squares.

55. Dr.S.Vidhyalakshmi, Dr.M.A.Gopalan, V.Geetha, A.Rukmani-“An Interesting Diophantine Problem on Triples –I”, International journal of emerging technologies in engineering research, www.ijeter.everscience.org, IF: 4.225, Peer reviewed, ISSN: 2454-6410, Vol 3, Issue 2, Nov 2015.

Abstract:

We search for three non-zero distinct integers a, b, c such that, if a non-zero integer is added to the sum of any pair of them as well as to their sum, the results are all squares.

Department of Microbiology

1. **Dr. K. Anandhi, Ms.G. Priya Gouri, Ms.R. Asha, Mr.M. Muthuselvam** - "Isolation and Identification of Wound Pathogens and Analysis Antibiotic Sensitivity Using Antiabiotics and Soaps", IJSR-International Journal of Scientific Research, www.worldwidejournals.com/ijsr/ peer reviewed, ISSN: 2277-8179, IF: 3.2416, Vol 4, Issue 7, Page No: 200-202, July 2015.

Abstract:

In the Present study 25 wound swabs were collected from burnt patients in Tiruchirappalli district Tamil Nadu. From the was bacterial species were isolated using Nutrient agar, MacConkey and Blood agar medium. The bacterial isolates were identified with the help of culture, morphological and biochemical characteristics. The bacterial isolates were confirmed as Streptococcus pyogenes, Proteus vulgaris, Pseudomonas aeruginosa and Staphylococcus aureus. The isolated bacterial species protein profile was also analyzed by SDS-PAGE. Seven bands were observed in Streptococcus pyogenes band range from 160-36 KDa. In bacteria, the maximum and minimum zone inhibition was observed in antibiotic ceftriazone and clindamycin respectively. The highest antibacterial activity was noted De'scab, Deltol, and Lifebouy against all bacterial isolates. At the same time Lifebouy highly inhibit the growth of proteus vulgaris (16±0.81 mm in diameter).

2. **Dr.S. Shanthi, Ms.V. Bharathi and Dr.G. Hemalatha et al-** "Phytochemical Analysis and Antibacterial Efficacy of Adathoda Vasica", World journal of pharmacy and pharmaceutical sciences, www.wjpps.com, IF: 6.041, ICV:6.21, peer reviewed, ISSN: 2278-4357, Vol 5, Issue 3, Page No: 799-808, Feb 2016.

Abstract:

Infectious diseases are the leading cause of death worldwide. Respiratory tract infection (RTI) is defined as any infectious disease that occur in the upper or lower respiratory tract. Respiratory tract is a frequent site of infection because it comes in direct contact with the environment and is exposed to airborne microorganisms, including viruses, bacteria, fungi and parasites. Upper respiratory tract infections (URTIs) include the common cold, laryngitis, pharyngitis, tonsillitis, acute rhinitis, acute rhinosinusitis and acute otitis media.

Leaves of Adathoda vasica (Family: Acanthaceae) has been used in Indian system of traditional medicine for the treatment of respiratory disorders. In the present investigation, the antibacterial efficacy of alcohol and aqueous extracts of Adathoda vasica were tested again respiratory tract pathogens especially Pseudomonas aeruginosa, Klebsiella pneumonia, Salmonella sp., Proteus mirabilis, Bacillus sp and their phytoconstituents were also analyzed.

3. **Ms.S. Bhuvaneshwari, Ms.G. Subashini, Ms.K. Chitra devi and Ms.K. Srividhya** – “Biosynthesis of Silver Nano Particles from Endophytic Bacteria, Antibacterial Activity and Molecular Characterization of Bacillus subtilis”, www.journalijar.com, IF: 5.336, peer reviewed, ISSN: 2320-5407, Vol 4, Issue 3, Page No: 1291-1297, March 2016.

Abstract:

This study highlights the ability of nitrate reducing Bacillus subtilis STBBP1 cell free extract used for the preparation of silver nanoparticles. The SEM graph revealed spherical shaped Nanoparticle in the range of 40-60nm. The antibacterial activity of silver Nanoparticles by Bacillus was investigated against various pathogenic organisms. Highest antibacterial activity was found in Escherichia coli (15mm) followed by Streptococcus pyogenes (11mm). The formation of silver Nanoparticles was monitored by UV – Vis spectra showed surface Plasmon resonance peak at 430 nanometer, SEM-EDX spectra showed the presence of element silver in pure form. FTIR proved the presence of biomolecule responsible for the reduction of silver ions and X-ray diffraction analysis confirmed that the obtained silver Nanoparticles were in crystalline form. It showed an array of absorbance bands in 600cm⁻¹. The molecular characteristic of Bacillus subtilis STBBP1 was evaluated by PCR amplification of 16srRNA and sequence were deposited in gene bank. This opens a new avenue of result were the Endophytic bacteria can also be used in the synthesis of Nanoparticles.

4. **Ms.G. Subashini, Ms.S. Bhuvaneshwari, Ms.K. Chitra devi and Ms.K. Vijayalakshmi** – “Isolation, Identification and Control of Bacteria and Fungal Microorganisms from Contaminated Currency Notes”, International Journal of advanced research, www.journalijar.com, IF: 5.336, peer reviewed, ISSN: 2320-5407, Vol 4, Issue 3, Page No: 467-472, March 2016.

Abstract:

Money is very important to human life as it facilitates the needs and currency notes are vital for goods and services worldwide. Paper currency is used repeatedly in exchange for goods and service and this are way the circulation of paper currency from one individual to another potentially spreads microorganisms. Contaminated different paper currency note samples were collected from hospital in Tirchirappalli, Tamilnadu. The samples were analysed in microbiologically. Both gram positive and gram negative bacteria were found on currency notes. Predominant bacteria found in 25 currency notes were streptococcus pneumonia present (36%), Bacillus subtilis (24%), Pseudomonas aeruginosa (18%), Escherichia coli (12%), and Klebsiella pneumonia (10%). Fungi were Aspergillus flavus (4%), Aspergillus fumigatus (8%), Aspergillus niger (4%) and Candida albicans (8%). DNA was separated by Agarose Gel Electrophoresis. The size of the DNA measured using molecular marker. The bands found at 9500 bp and 8000 bp respectively. The sensitivity tests were performed to detect the sensitivity of organisms against Standard disc placed. The maximum zone was observed in Escherichia coli and Streptococcus pneumonia against commercial antibiotics such as Chloramphenicol, Erythromycin. In fungi, the maximum and minimum zone of inhibition was observed in

antibiotic clotrimazole and Amphotericin B respectively. The maximum level of inhibition was present in 20 minutes UV treatment. Paper currency is commonly contaminated with microbes and this may play a role in the transmission of potentially harmful organisms. So cash should not be handled by children and should be kept away from food and cosmetics.

5. **Ms.G. Subashini, Ms.S. Bhuvanewari, Ms.Chitra devi and Ms.N. Kanmani**– “ Screening and Production of Biodegradable Plastics from Marine Bacillus SPP”, International journal of current research, www.journalcra.com, IF: 6.226, ICV: 6.24, peer reviewed, ISSN: 0975-833X, Vol 8, Issue 4, Page No: 29224-29229, Apr 2016.

Abstract:

Plastic is considered an individual gift of modern science and technology to mankind. Nowadays, plastics and synthetic polymers are mainly produced from petro chemical elements, which do not decompose, thus resulting in the environmental pollution. Bacterial plastic is usually defined as an exciting new area of research, where naturally synthesized bacterial polymer, such as the lipid storage material PHB is being used as raw materials for plastic based packaging materials. Poly- β -hydroxybutyrates (PHBs) are one such biopolymer, which are commonly found in soil and synthesized by a broad range of bacteria, during the limitation of nitrogen, calcium, magnesium, iron or essential vitamins. The present investigation includes isolation and identification of marine Bacillus sp. from seawater and screening of media components for maximum production of Poly- β -hydroxybutyrates. Twenty Bacillus sp. was isolated from seawater. Among 20 isolates, nine showed the maximum sudan black absorption, which indicated the highest production of Poly- β -hydroxybutyrates. Among nine isolates, 3 isolates were selected best isolates for the maximum production of poly- β -hydroxybutyrates, 2 isolates are *B. Subtilis* and one isolate identified as *B. Cereus*. The highest PHB production was observed at pH 8 by all three isolates, at 40°C for *B. subtilis* and 35°C for *B.cereus*. Glucose was found to be sole carbon source for the production of PHB by *B. subtilis*. Maltose was found best carbon source for the maximum production of PHB for *B. cereus*. The maximum amount of PHB production in ammonium sulphate for *B. subtilis* and yeast extract for *B. cereus*. *B. subtilis* isolates were produced the maximum PHB at 3% salinity while *B. cereus* was produced at 2% salinity. Poly- β -hydroxybutyrates biodegradable plastics. So definitely they can support quality lifespan of all living creatures including human being due to non-pollution environment.

6. **Ms.G. Subashini and Ms.S. Bhuvanewari and Ms. T. Suganya** – “Bio-Prospecting of Endophytic Bacteria from Medicinal Plant”, World journal of Pharmaceutical Research, www.wjpr.net, IF: 6.805, ICV: 6.21, peer reviewed, ISSN: 2277-7105, Vol 5, Issue 5, Page No: 1728-1740, May 2016.

Abstract:

Plants are generally associated with diverse microorganisms. Endophytic organisms are those that colonize the plant internal tissue showing no external sign of infection or negative

effect on there. Endophytic microbes from medicinal plants are good source of functional metabolites. Endophytic microorganisms can be derived from any part of the plant like bark, leaves, flowers, fruits, roots, seeds etc. In the present study, efforts have been made to isolate and physiological activity of endophytic bacteria inhabiting leaves of medicinal plants such as Kasarali (*Catharanthus roseus* L.), Thuthuvalai (*Solanum trilobatum* L.) and Tulsi (*Ocimum sanctum* L.) which are growing in the Trichy region. The density of endophytic populations recovered in nutrient agar medium, which varied from 4.26×10^5 to 1.34×10^5 CFUg⁻¹ per fresh weight. Colonization frequency and isolation rates 42.22, 37.78, 46.67% and 21.05%, 17.65% and 23.81% in kasarali, thuthuvalai and tulsi respectively. Among the 12 isolates, KA-1, KA-2, KA-3, TV-5, TV-7, TL-8, TL-9 AND TL-11 were identified as *Bacillus* sp. KA-4, TV-6 and TL-10 were identified as *Pseudomonas* sp and TL-12 as *Klebsiella* sp. Among the 12 isolates, 9 isolates had amylolytic, lipolytic and proteolytic activity with different zone of clearance. Among the 12 isolates, 11 isolates had cellulolytic activity with different zone of clearance. Among the 12 isolates, nine isolates showed antibacterial activity against either gram-positive or gram –negative bacteria. The endophytic bacterial extracts were more effectives in gram-positive bacteria than gram-negative bacteria. The MIC of ethyl acetate of endophytic bacterial isolates were ranged from 3.13 to 50 mg/ml. Endophytes isolated form medicinal plants may be beneficial to the host. The endophytic microorganisms are a very promising source for production of bioactive compounds.

7. **Ms.S.Bhuvanewari et al.** -“Molecular Profiling and Bacteriocin Production of Endophytic Bacteria Isolated from *Solanum trilobatum* L. Leaves”, International journal of current microbiology and applied science, ICV 2015: 85.95, www.ijemas.com, IF: 2.937, Peer reviewed, ISSN(Print): 2319-7692, ISSN (Online): 2319-7706, Vol 4, Issue 8, Page No: 539-546, 2015.

Abstract:

Bacteriocins are bacterial ribosomal synthesized antimicrobial peptides lethal to bacteria other than the producing strain. In the present investigation, a bacterial endophyte was isolated from *Solanum trilobatum* L. (*Solanaceae*) leaves. The isolated endophyte was identified as *Bacillus subtilis* (BMP01) by 16S rRNA gene sequence analysis. The production of bacteriocins of *Bacillus subtilis* (BMP01) was evaluated by using well agar method. Different concentrations of NaCl, yeast and tryptone extracts were selected as variables for maximum production of bacteriocin and significant effects of variables were observed on the production of bacteriocin.

8. **Ms.V. Bharathi, Dr.G. Hemalatha and Dr.S. Shanthi**-“Antihelminthic Activity and Phytochemical Screening of *Cucurbita Maxima* and *Momordica Charantia* Seeds”, International journal of institutional pharmacy and life sciences, www.ijipls.com, IF: 3.55, ISSN: 2249-6807, Vol 6, Issue 1, Page No 22-31, Feb 2016.

Abstract:

The present study deals with phytochemical and anthelmintic evaluation of *Cucurbita Maxima* (pumpkin) seeds and *Momordica charantia* seeds. This evaluation revealed the presence

of many phytochemical constituents. Crude tannis were isolated and identified using thin layer chromatography. All extracts were evaluated for anthelmintic activity. Momordica charantia Seeds extracts showed very good anthelmintic activity. Paralysis and death times of crude extracts were very close to the standard drug Albendazole.

9. **Ms.V. Bharathi, Dr.S. Shanthi and Dr.G.Hemalatha-** “In-Vitro Screening of Antibacterial Efficacy of Cadaba Fruticosa (L.) Against Common Human Pathogens”, World journal of pharmaceutical research, www.wjpr.net, IF: 6.805, ISSN: 2277-7105, Vol 5, Issue 4, Page No:783-791, Mar 2016.

Abstract:

Infectious diseases caused by Bacteria and Fungi are a growing global threat today, accounting for 50% of the death in tropical countries. Though, conventional drugs provide effective therapy against these infections, development of Multi Drug Resistance, high cost and adverse side effects of synthetic chemotherapeutics urged the researchers to search for an alternate, safe and natural remedy from enormous range of medicinal plants which is the treasure of India. In the current investigation, Cadaba fruticosa (L.) which is called as Vizhuthi, Adamorinika, Chikondi and Piluka in Tamil and Indian Cadaba in general is extracted with alcohol, chloroform and water and screened for its antibacterial activity against the common pathogens viz., S.aureus, Pseudomonas, Bacillus sp., E.coli. All the three extracts showed promising results in the control of pathogens. Alcohol fraction showed 17.4 mm zone of inhibition (ZOI), aqueous extract showed 16.8 mm zone of inhibition (ZOI) and chloroform fraction showed 11.9 mm zone of inhibition at 1600 µg concentration / well. S.aureus (17.4 mm) and E.coli (14.5mm) were highly sensitive to alcohol fraction. Pseudomonas was highly susceptible to chloroform fraction (14.7mm). In general, Bacillus was least sensitive to all the fractions.

Department of Physics

1. **Ms.S. Santhakumari et al** –“Thermodynamical Parameters, Adiabatic Compressibility Analysis of Amides Using Ultrasonic Velocity”, International journal of science and research, www.ijsr.net, IF(2015): 6.391, ICV:6.14, Peer reviewed, ISSN: 2319-7064, Jan 2015.

Abstract:

Measurement of ultrasonic velocity in non-aqueous solutions gives information about the behavior of solution such as molecular association and disassociation. The attraction and repulsion between the molecules of the components involved show considerable effect upon the physical and chemical properties of a solution such as density, viscosity and ultrasonic velocity. Sulphanilamide is the parent compound of all the sulfa-drugs which is important in urinary tract infections and meningococcal meningitis prophylaxis. Benzenesulphonamide is one of the sulfa drug used in the treatment of gastrointestinal, duodenal ulcer, neurological disorder. The passage of ultrasonic waves through solutions and liquids disturb the equilibrium between solute and solvent molecules. In the present work, non-aqueous solutions of both the samples have been prepared with different concentrations and the experiments were carried out from a low temperature of 5°C to a high temperature of 55°C. The various interactions occurring in the solutions are interpreted in terms of ion-ion and ion-solvent interactions. Internal pressure, free volume are the thermodynamical parameters to explain about the wealth of information about the state of liquids. The structural changes of molecules in the solution takes place due to the existence of electrostatic field between the interacting molecules. The arrangement of the molecules results in the effect of adiabatic compressibility. The analysis of the study reveals the structural changes occurring in the solution.

2. **Ms.S. Sujatha et al**– “Analysis of Transport Properties of Some Glycyl Peptides in Non-Aqueous Medium”, International journal of science and research, www.ijsr.net, IF (2015): 6.391, Peer reviewed, ISSN: 2319-7064, Jan 2015.

Abstract:

The thermodynamical parameters of three glycyl dipeptides have been analysed in non-aqueous medium of formamide at various molalities and temperatures. Peptides play a vital role in the field of medicine and Pharmaceutical industries. Peptides have been used in the study of protein structure and function. They are used in nutritional supplements. In view of their use, the study of structural changes due to transport properties gives an impetus and interest in the field of liquid state. The main advantage of considering the internal pressure in calculating the transport properties lies in the fact that it is experimentally measurable, and it depends on molar volume. In the present work, density, viscosity and ultrasonic velocity of Glycyl –L-Leucine, Glycyl-L- Valine and diglycine were measured in the temperature range of 5°C to 55°C. From the above value internal pressure, free volume were calculated. The results are analysed based on peptide amide interactions.

3. **Ms.R.G. Vidhya et al** - “Structural, Optical and Thermal Characterization of Calcium Tartrate Crystal Grown Under the influence of Magnetic Field”, International Journal of Mathematics and Physical Sciences Research, www.researchpublish.com, Peer reviewed, ISSN: 2348-5736, Vol 3, Issue 1, Page No: 9-15, April- Sep 2015.

Abstract:

Nowadays Great attention has been devoted to the growth and characterization of pure and doped tartrate crystals with the aim to identify new materials for practical purposes. The effects of dopants on various properties of single crystals are of great interest for solid state science. Several applications of calcium tartrate gel method in the presence and in the absence of the magnetic field. The cell parameters are obtained from single crystal XRD analysis. The crystals are characterized by FTIR spectroscopy and UV Spectroscopy. The influence of magnetic field on crystal stability is studied from Thermo gravimetry analysis (TGA) and differential scanning calorimetry (DSC) analysis. The study reveals the locking of water molecules in the lattice with different strengths. The decomposition is observed from the endothermic peaks of DSC.

4. **Ms.S. Santha kumari et al.**–“ Internal Pressure, Free volume and Adiabatic Compressibility Analysis of Amides in Non- Aqueous Medium”, IAJPS Indo American J of Pharm Sci, www.iajps.com, IF: 0.437, Peer reviewed, ISSN: 2349-7750, Vol 2, Issue 2, Page No: 587-592, July 2015.

Abstract:

Measurement of ultrasonic velocity in non-aqueous solutions gives information about the behavior of solution such as molecular association and disassociation. The attraction and repulsion between the molecules of the components involved show considerable effect upon the physical and chemical properties of a solution such as density, viscosity and ultrasonic velocity. Sulphantilamide is the parent compound of all the sulfa-drugs which is important in urinary tract infections and meningococcal meningitis profilaxes. Benzenesulphonamide is one of the sulfa drug used in the treatment of gastrointestinal, duodeny ulcer, neurological disorder are analyzed for the solution of the sample, in form made. The passage of ultrasonic waves through solutions and liquids disturb the equilibrium between solute and solvent molecules. In the present work non-aqueous solutions of both have been prepared with different concentrations and the experiments were carried out for a low temperature of 50°C to a high temperature of 55°C. The various interactions occurring in the solutions are interpreted in terms of ion-ion and ion-solvent interactions. Internal pressure free volume is the thermodynamical parameters to explain about the wealth of information about the state of liquids. The free volume is generalized aspects of the idea that each molecule is enclosed by its neighbors in a cell. The structural change of molecules in the solution takes place due to the existence of electrostatic field between the interacting molecules. The arrangement of the molecules results in the effect of adiabatic compressibility. The analysis of the study reveals the structural changes occurring in the solution.

5. Ms. N.Sharmila et al. - "Two new isatin derivatives 1-benzyl-4, 5, 6-trimethoxyindoline-2,3-dione and 1-benzyl-5-fluoroindoline-2, 3-dione", Acta Cryst –C IUCr Journals, journal.iucr.org/c, IF: 0.479, Peer reviewed, ISSN: 2053-2296, Vol C71, Page No: 975-978, Oct 2015.

Abstract:

Isatin (1 H-indole—2,3-dione) derivatives represent synthetically useful substrates which can be used to prepare a broad range of heterocyclic compounds. In the title compounds, C₁₈H₁₇NO₅, (I) and C₁₅H₁₀FNO₂ (II), the isatin ring systems are planar and form a dihedral angle of 73.04 (7)° in (I) and 76.82 (11)° in (II) with the benzyl groups. The bicyclic scaffolds in both compounds are almost superimposable, with an r.m.s deviation of 0.061 Å. The crystal structures of both derivatives are stabilized by C-H...O interactions. These contacts generate an R¹₂(7) ring motif in (I) and a C(7) chain motif in (II).

6. Ms.N. Sharmila et al. -"1-Benzyl-5-methylindoline-2,3-dione", IUCrData, iucrdata.iucr.org/x, peer reviewed, ISSN: 2414-3146, Vol 1, Issue 3, March 2016.

Abstract:

The title compound, C₁₆H₁₃NO₂, is an isatin (indole-2,3-dione) derivative. The isatin moiety is almost planar with an r.m.s. deviation of 0.022 Å, and its mean plane makes a dihedral angle of 74.19 (12)° with the benzyl ring. In the crystal, molecules are linked by C-H...O hydrogen bonds, forming C(6) chains propagating along the α -axis direction. The chains are linked via C-H... π interactions, forming slabs parallel to the ab plane. Within the slabs there are weak π - π interactions present involving inversion-related isatin moieties.

Department of Social work

1. **Ms.N. Sherrin Sophia and Ms.M. Rajeshwari** – “Quality of Life among Care Givers of Patients with Schizophrenia”, International Contemporary Research Journal in Management and Social Science, www.icrjmss.in, Peer reviewed, ISSN: 2349-7691, Vol 1, Special Issue 2, Page No: 73-79, Feb 2015.

Abstract:

This study aims to examine the quality of life of care givers of patients with schizophrenia. Seventy nine care givers of patients with schizophrenia, who were attending the Sowmanasya Hospital Outpatient service in Tiruchirappalli, were assessed using the Quality of Life Questionnaire (WHOQOL-BRIEF). The study revealed that quality of life is low among the caregivers. These results suggest a close monitoring of caregivers’ mental health and the provision of family intervention and psycho-social support.

2. **Ms.N. Sherrin Sophia and Dr.V. Sethuramalingam** – “Depression, Anxiety, and Stress among Visually Impaired Married Couples: A Review of Previous Studies”, International Contemporary Research Journal in Management and Social Science, www.icrjmss.in, Peer reviewed, ISSN: 2394-7691, Vol 1, Special Issue 1, PageNo: 56-61, Feb 2015

Abstract:

This paper is aimed at highlighting previous studies focused on people with low vision, rehabilitation services, self-management programmes and anxiety and depressive disorders among visually impaired people and institutionalized older people. However, studies about depression, anxiety and stress among visually impaired married couples are completely missing. This paper is an attempt to analyse the research gap which can be concentrated for further research and practice.

3. **Dr.K. Kavitha Maheswari and Ms.B. Surya** -“Study on Empowerment of Women Representatives in Local Self Government”, International Contemporary Research Journal in Management and Social Science, www.icrjmss.in, Peer Reviewed, ISSN: 2349-7691, Vol 1, Issue 1, Page No: 168-172, Feb 2015.

Abstract:

This is a descriptive aimed at understanding socio-economic development along with empowerment in the dimensions of decision making, adjustment, communication, and leadership abilities of local self governments. The study was conducted at Trichy district covering Mannachanallur blocks. Forty five respondents were selected by using convenient sampling technique. A Self prepared interview schedule was used for data collection. Simple percentage analysis was used for statistical analysis and interpretation. The details of the findings have been discussed in the full paper.

4. **Ms.N. Hemalatha and Ms.R. Sheelavathy** - “ A Study On Employee Turnover at Prime Star Fashions, Tirupur”, Journal of Business Management & Social Science Research (JBM &SSR), www.borjournal.com, IF: 3.828, Peer Reviewed, ISSN: 2319-5614, Vol 4, Issue 1, Page No: 312-316, April 2015.

Abstract:

Employee turnover means number of incoming and outgoing worker from and organization or company. In other words we can say when a new employee takes place of old employee it is called employee turnover in a period of time. The main objective of perusing the study is to assess the main reasons for employee turnover, to know the retention technique to avoid the employee turnover occur due to the low level pay scale, work environment, stress, delayed pay scale, lack of proper training, lack of transport facility, job pressure, boredom of the work, etc. The above reason may create dissatisfaction on job and lead to employee turnover. To study about the various expectations of the employee to continue in the organization work. The universe is 330 and the sampling taken by the researcher is 47. By the analysis the researcher found that the major reason for employee turnover is poor employer and employee relationship, also the major reason for the employee turnover. The tool used for the data collection was interview schedule and the research design used by the researcher was descriptive method. This study indicates that 89% of the respondents felt that poor employer employee relation should be maintain properly.

5. **Dr.K. Kavitha Maheswari and Ms.A. Subhashini** - “Socio Economic Conditions of Folk Artists”, International Journal of Applied Research, www.allresearchjournal.com IF: 5.2, peer reviewed, ISSN (Print): 2394-7500, E-ISSN: 2391-5869, Vol 1, Issue 12, Page No: 664-667, October 2015.

Abstract:

This descriptive study is to know the socio-economic profile of the respondents in the selected area and to analyse the socio-economic conditions of the respondents. The universe of this study constituted of folk artists in Thanjavur. Purposive convenient sampling was employed to collect the data, the sample size was 54. Those who met by the researcher who were performing in various programs like karagattam, kavadi attam, Therukoothu, Oyilattam, Kuravan Kurathi, Thappu etc. The researcher used a self prepared interview schedule for data collection. From the study it is revealed that the respondents are having insecured economic status, relying on unstable job nature, having health hazards and sexual harassment, educational backwardness and inability to give proper education to their children. Thus the study helped know the conditions of the folk artist. The study is concluded that the folk artists need support and encouragement in the society and family without partialities.

6. **Dr.K. Kavitha Maheswari and Ms.U. Kanagajothi** - “Alcoholism and Marital Adjustment”, International Journal of Applied Research, www.allresearchjournal.com, IF: 5.2, peer reviewed, ISSN(Print): 2394-7500, E-ISSN: 2391-5869, Vol 1, Issue 12, Page No: 973-976, October 2015.

Abstract:

Alcoholism is a serious medical disease with signs and symptoms that vary depending on the amount and frequency of consumption. Progressing alcoholism will significantly disrupt the lives of users and their families. In the present study, researcher has used the Descriptive Research design to describe the socio-demographic variables and the marital adjustment of the respondents. The universe of the present study consisted of married male alcoholics who are under de-addiction treatment at SOCSEAD de-addiction center, Tiruchirappalli, during April to June 2014. The universe of this study is infinite because the universe is not consistent in nature as all the inpatient and outpatients were taken in to the universe of this study. The analysis revealed that a little more than half (51.1 percentage) of the respondents had low level of marital adjustment. Remaining 48.9 percent of the respondents had high level of marital adjustment. It is also revealed that the marital adjustment among the respondents who are frequently consuming alcohol is very poor. There is significant relationship between the respondents' span of alcoholism and their marital adjustment. Hence longer the duration of alcohol dependency poorer would be the marital adjustment.

7. **Ms.E. Deepa and Ms.K. Shenbaham**-“ A Study on Problem Faced By The Children of Working Parents”, International Journal of Asian Academic Research Associates, Research, www.asianacademicresearch.org, ISSN: 2278-859X, peer reviewed, IF: 2.015, Vol 2, Issue 5, Page No: 11-20, Oct 2015.

Abstract:

Every mother is a working mother, whether in formal or informal employment self-employment in the home. The United Nation Economic Commission of America calculates that women carryout up to 75 percent of all agricultural work in addition doing 95 percent of domestic work. As a result of increasing industrial more women are looking away from home in large work places such as office factories, shops and hospitals, while continuing to take the main responsibility for child care. Most of the parent's don not give proper care for their own children. Now days children are facing many problems in the life cycle. Home the only place where all the needs of a growing child can be met. Love, affection and emotional security for a growing child are as important as food, clothing and shelter. The researcher has adopted descriptive Research design in this study to describe and the Problem faced by the children of working parents. The universe of this study constitutes the children those who are studying at St. John's school kattur, Trichy. The researcher collected data from fifty respondents by using purposive sampling method. The major findings will be discussed in full paper.

8. **Dr.K. Kavitha Maheswari and Ms.M. Aruna** -“ Impact of Family Interaction Pattern on Self Esteem Among Adolescent Students”, Journal of Management and Science, www.jms.nonolympictimes.org, peer viewed, ISSN :2250-1819, E-ISSN: 2249-1260, Vol 1, Special Issue, Page No: 100-107, Oct 2015.

Abstract:

This descriptive study is aimed to know the “Influence of family interaction pattern on self esteem among adolescent school students” was conducted at N.N. Ramanathan Lyyar high school. The universe of the study is 10th standard students of both the gender. Self prepared questionnaire along with standardized tool on family interaction pattern, self esteem were used to collect the data. From the analysis of the data by using statistical tools such as simple percentage analysis and correlation, it was revealed that there is no significant relationship between family interaction pattern and self esteem. Hence I this study, the family interaction pattern has no significant influence on self esteem of the respondents. Through there is no significant relationship between the selected variables, parents can constantly encourage their wards to improve their academic performance and their self esteem.

9. **Dr.K. Kavitha Maheswari and Ms.A. Priya** -“Self-Esteem among Street Children in Tiruchirappalli”, Journal of management and Science, www.jms.org, peer reviewed, ISSN: 2249-1260, Vol 2, Page No: 177-123, Oct 2015.

Abstract:

Street children is a term for children experiencing homelessness who live on the streets of a city, town or village. Homeless youth are often called street kids and street youth; the definition of street children is contested, but many practitioners and policymakers use UNICEF’s concept of boys and girls, aged under eighteen years, for whom “the street” (including unoccupied dwellings and wasteland) has become home and/or their source of livelihood, and who are inadequately protected or supervised. The research has adopted a descriptive research design to conduct this study. It attempts to know the socio- demographic characteristics and self esteem of the respondents. The universe of the study are the street children under care of SONTAM home, TMSSS Trichy district, To know the applicability of the interview schedule, a pretest was conducted with 5 inmates and there was no change in the format. Hence the pretested respondents were included in the sample. A total of 33 respondents were selected from the universe by census method. The researcher used a self prepared interview schedule on the social and psychological aspects of street children and a standardized tool on Self Esteem by Rosenberg. From this study it is revealed that a little less than half of the respondents 45.5% are having high self esteem. There are no proper guiding factors and the source of motivation makes the respondents to have low self esteem. The exposure level of the respondents is not so good when comparing other normal school going students at their age.

10. **Dr.K. Kavitha Maheswari and Ms.S. Devaki** - “Entrepreneurship- A tool for Women Empowerment”, Journal of management and Science, www.jms.nonolympictimes.org, , peer reviewed, ISSN: 2249-1260, Vol 2, Page No: 51-56, Oct 2015.

Abstract:

Women entrepreneur is regarded as a person who accepts a challenging role to quench her personality needs and to become economically independent by making suitable adjustments in both family and social life. They are constantly on the look-out for new and innovative ways which lead to strong economic participation. Their adeptness, skill and knowledge, their acumen in business and a pushing desire to do something positive are among the reasons for women to establish and manage organized industries and take up challenging ventures. Descriptive research design has been adopted for this research. It attempts to describe the economic status, leadership, decision making, communication, crisis management, empowerment and development orientation among the respondents along with their socio demographic characteristics. The universes of the study are rural women entrepreneurs of Thiruverumbur block Trichy District. A total of 50 respondents were selected from the universe using convenient sampling method. As the entrepreneurs are busy people and all the time they are busy with their work hence by considering the practical difficulties the researcher has used convenient sampling technique to select the respondents. The researcher used self-prepared interview schedule developed by researcher constituting 50 questions covering the aspects like. The detailed findings of this study in discussed in the full paper.

- 11. Dr.K. Kavitha Maheswari and M. Aruna** –“Gender Difference and Achievement Motivation Among Adolescent School Students”, International journal of applied research, www.allresearchjournal.com, IF: 5.2, peer reviewed, ISSN(Print): 2394-7500, ISSN(Online): 2394-5869, Vol 2, Issue 1, Page No: 149-152, Dec 2015.

Abstract:

Achievement is task-oriented behavior that allows the individual's performance to be evaluated according to some internally or externally imposed criterion that involves the individual in competing with others, or that otherwise involves some standard of excellence. Descriptive research has been done in this research describing the socio demographic characteristics the respondents along with their achievement motivation and also to find the gender difference with reference to their achievement motivation. The study was conducted at N.N. Ramanathan Iyyer high school, Nangavaram, Karur district. The universe of the study were 10th standard students of both gender belonged to the same school. There were totally 128 students who constituted the universe of the study. The researcher used census method to select the respondents. Here in this study all the 10th standard students of both the gender studying in N.N.Ramanathan Iyyer high school. Nangavaram, Karur district were included in the sample to collect the data. There were totally 128 respondents included in the present study. The major findings of this study revealed that a little more than half of the respondents (55.5%) were having low-level of achievement motivation and the remaining respondents (44.5%) having high level of achievement motivation. ‘Z’ Test was applied and it is inferred that there is significant difference between gender of the respondents with regard their to achievement motivation, the

calculated Z value=2:314 ($P<0.05$) is higher than the table value so the research hypothesis is accepted and the null hypothesis is rejected.

- 12. Ms.K. Shenbaham and Ms.S. Divya**, “A Study on Job Satisfaction Among Women Police”, International Journal of Applied Research, www.allresearchjournal.com, IF: 5.2, peer reviewed, ISSN(Print): 2394-7500, ISSN(Online): 2394-5869, Vol 2, issue 2, Page No: 336-338, Jan 2016.

Abstract:

Women in policing have been the subject of considerable study for the past 20 years. While women perform as well as men in various patrol assignments and situations, they still face a significant amount of disapproval from the male police personnel population. Citizens, however, have shown a greater acceptance of women in this male-dominated occupation and a greater confidence in women’s abilities to effectively perform difficult patrol tasks. In India, according to the latest statistics of the home ministry, women constitute 5.3 per cent of the country’s police forces. Tamil Nadu, Maharashtra and Chandigarh have a relatively better representation of women in the police. In 1997, the authorities in Tamil Nadu took advantage of the labour legislation to ensure that 33 per cent of the new police recruits were women. Female police officers comprise 29 per cent of the force in South Africa, 14 per cent in the United States of America, almost 30 per cent in Australia and 18 per cent in Canada. The purpose of the present research is to analyze the job satisfaction and problems of Women Police in Trichy City.

- 13. Ms.N. Sherrin Sophia and Ms.E. Vinotha** - “Self Esteem Among Commercial Sex Workers in Tiruchirappalli District”, Golden research thoughts, <http://aygrt.isrj.org>, IF: 3.4052(UIF), peer reviewed, ISSN: 2231-5063, Vol 5, Issue 7, Page No: 57-60, Jan 2016.

Abstract:

Sex workers who face stigma and social exclusion develop several mental health issues. It lowers a person’s self-esteem and distorts their self-image, leading to a feeling of not being capable or worthy of a better life situation. A well known work in psychology suggests that a sense of self efficacy (the ability to succeed in a particular situation, despite barriers) is important to motivate individuals to put in an effort and strive in the face of challenges. It is also necessary to increase an individual’s self-esteem in order to decrease their tendency to succumb to mental illness, addiction, theft, and prostitution. The present study aims to examine the level of self esteem among commercial sex workers in Health Education and Development Society(HEADS), Kulithalai.

- 14. Ms.N. Sherrin Sophia and Ms.P. Suganya** - “Depression, Anxiety and Stress among parents of Differently Abled Children in Tiruchirappalli”, Golden research thoughts, <http://aygrt.isrj.org>, IF: 3.4052(UIF), peer reviewed, ISSN: 2231-5063, Vol 5, Issue 7, Jan 2016.

Abstract:

The present study attempts to analyse the depression, anxiety and stress among the parents of differently abled children in Tiruchirappalli. The data were collected from 40 respondents through census method. A self prepared interview schedule was used along with a standardised scale (DASS) by Lovibond and Lovibond (1995) to measure the level of depression, anxiety and stress of the respondents. Majority (65%) of the respondents had high level of depression, 60% of the respondents had high level of anxiety, and nearly half of the respondents (48) had high level of stress.

15. **Ms.N. Sherrin Sophia et al.** - "Quality Of Life of Visually Impaired Married Couples: A Systematic Review", Golden research thoughts, <http://aygrt.isrj.org>, IF: 3.4052(UIF), peer reviewed, ISSN: 2231-5063, Vol 5, Issue 7, Page No: 1-6, Jan 2016.

Abstract:

Lot of research in this field looks at the impact of sight loss on quality of life of visually impaired such as employment, mobility, familial influence, life satisfaction, economic status and housing but research findings related to quality of life of visually impaired married couples have not been carried out to a great extent. The few studies that have investigated the quality of life of visually impaired did not take visually impaired married couples into account. Thus, the researcher has made an attempt to bring out the research gap that exists regarding the quality of life of visually impaired married couples in this study.

16. **Ms.E. Deepa and Ms.T. Nithyadharshini** – "A Study on Employee Retention Techniques", Golden research thoughts, <http://aygrt.isrj.org>, IF: 3.4052(UIF), peer reviewed, ISSN: 2231-5063, Vol 5, Issue: 7, Page No: 75-77, Jan 2016.

Abstract:

This paper aims to study the employee job satisfaction and retention technique. The universe of the study constitutes 250 employees in Kothari Sugar's and Chemicals Limited Kattur, Tiruchirappalli. From the universe 50 respondents were selected by using convenient sampling for the study. The result revealed that all of the respondents were male and 54% of them were graduates. 62% of the respondents were highly satisfied with their nature of work and 38% of the respondents were highly satisfied with their relationship with co-workers.

17. **Ms.K. Kavitha Maheswari and Ms.R. Keerthana** – "Medium of Instruction and Self-Esteem", Golden research thoughts, <http://aygrt.isrj.org>, IF: 3.4052(UIF), peer reviewed, ISSN: 2231-5063, Vol 5, Issue 7, Page No: 68-72, Jan 2016.

Abstract:

The present research is concerned with describing the socio demographic characteristics the respondents along with self-esteem and the influence of the variables on each other. From the universe of 256 students, 60 respondents were selected by the researcher by using stratified disproportionate random sampling technique. The researcher has collected data with the help of

a self prepared questionnaire along with a standardised tool on self-esteem. It was found that there is a significant difference between the Medium of education of the respondents with regard to their overall level of self-esteem. It was also found that the respondents from Tamil medium perceived better self-esteem than the respondents from English medium.

- 18. Ms.K. Kavitha Maheswari and Ms.A. Bhuvaneshwari** – “Psychosocial Impact of Infertility among Men - A Study”, Golden research thoughts, <http://aygrt.isrj.org>, IF: 3.4052(UIF), peer reviewed, ISSN: 2231-5063, Vol 5, Issue 7, Page No: 21-25, Jan 2016.

Abstract:

This study is aimed at describing infertility, treatment history, and infertility related psycho-social problems experienced by the men undergoing infertility treatment. The universe of the study is the men who are undergoing treatment at Janet Nursing Home, Puthur, Tiruchirappalli. The universe of the study is infinite in nature. A total of 30 respondents were selected from the universe using convenience sampling method. The researcher used self-prepared Interview schedule developed by the researcher constituting 47 questions related to socio demographic condition and the psycho-social problems experienced by them. It can be concluded that the men who are undergoing infertility treatment are having psycho-social problems similar to those of women. Proper psycho-social intervention will be of greater use to help them to get rid of these kinds of issues so that they can be psychologically healthy and fit to make use of the infertility treatment effectively.

- 19. Ms.K. Shenbaham** - “Culture and Lifestyle of Paliyan Tribes at Palani Hill, Dindigul District”, International Journal of Humanities and Social Science Research, www.socialresearchjournals.com, RJIF: 5.22, peer reviewed, ISSN: 2455-2070, Vol 2, Issue 3, Page No: 37-40, Feb 2016.

Abstract:

The Vedas described the existence of a people India. Who could have been Dravidians or perhaps pro Dravidians the cause's reports practices which later became and a part of a heritage Since 1901 revealed that aborigines primitives animists primitives tribal's the efforts of British administrators and missionaries and start in the year welfare was made by Mahatma Gandhi. The Paliyan, or Palaiyar or Pazhaiyar are Adivasi Dravidian people living in the South Western Ghats montane rain forests in South India, especially in Tamil Nadu and Kerala. They are traditional nomadic hunter-gatherers, honey hunters and foragers. Yams are their major food source. In the early part of the 20th century the Paliyans dressed scantily and lived in rock crevices and caves. Most have now have transformed to traders of forest products, food cultivators and beekeepers. Some work intermittently as wage labourers, mostly on plantations. They are included in the List of Scheduled Tribes in India.

20. Ms.N. Sherrin Sophia and Ms.S. Kabitha – “Life Satisfaction among Older Persons in Trichirappalli”, Golden research thoughts, <http://aygrt.isrj.org>, IF: 3.4052(UIF), peer reviewed, ISSN: 2231-5063, Vol 5, Issue 8, Page No: 1-3, Feb 2016.

Abstract:

The older population in india have become a burden to their families. They are abandoned least cared, physically and verbally abused and disrespected. This study has focused on Life satisfaction of the Aged people. The present study was carried out in St.Antony Old Age Home at Tiruchirappalli, 40 respondents were selected through simple random sampling technique. Life satisfaction scale (Havighurst,1961) was applied to collect the relevant data. Life satisfaction was found to be low among the respondents. Suitable suggestions have been provided to improve their satisfaction in life.

21. Ms.N. Sherrin Sophia and Ms. N. Janani – “Problem faced by women with polycystic ovary syndrome”, International Journal of Multidisciplinary Research and Development, www.allsubjectjournal.com, IF: 5.72, peer reviewed, ISSN(Print): 2349-5979, ISSN(Online): 2349-4182, Vol 3, Issue 2, Page No: 288-289, Feb 2016.

Abstract:

The present study had focussed on women with polycystic ovary syndrome. Women with PCOS had a lower self-esteem, a more negative self-image, depression and psychological distress owing to the physical appearance of hyperandrogenism, including obesity, hair loss, and excessive facial hair possibly by influencing a negative feminine identity. The relationships between psychological health aspects and the clinical characteristics of PCOS are found to be high. In this study 40 women who were under treatment at Janet Nursing Home, Tiruchirappalli were analyzed through purposive sampling technique. Majority of the respondents had high level of psychological distress. The results confirm that treatment of PCOS should tackle both physical and psychological complaints.

22. Dr.K. Kavitha Maheswari et al. – “Influence of Socio-Economic Status on Adolescents’ Achievement Motivation”, International Journal for Research in Social Science and Humanities research, ISSN: 2455-6114, peer reviewed, Vol 2, Issue 2, Page No: 14-22, Feb 2016.

Abstract:

Achievement motivation can be defined as the striving to increase or to keep as high as possible, one’s own capabilities in all activities in which a standard of excellence is thought to apply and where the execution of such activities can, therefore either succeed or fail. The researcher had adopted descriptive research design for the present study in order to assess the relationship between socio-economic status and achievement motivation. This study attempts to portray the socio-economic status, achievement motivation among the respondents and its interaction and influence on one another. The universe of the study comprises of all girl students, those who are studying twelfth standard in government higher secondary schools in

Pennagaram block of Dharmapuri district. The total strength of the students in the above mentioned groups as per the school register was 926 which formed the universe of the study. The sampling units of the study comprised of mathematics, science, commerce and vocational group. Sample from the four different strata each comprising 40 per cent was selected using stratified proportionate random sampling, the sample drawn from each stratum being proportional to the population size of the stratum. The total sample size for the study comprised of 370 respondents in all the four major groups. After analysis of the data it is revealed from the study that there is no significant relationship between socio economic status and achievement motivation.

- 23. Dr.K. Kavitha Maheswari** – “Study Involvement among Rural Adolescent Girls”, International Journal for Research in Social Science and Humanities, <http://internationaljournalsforresearch.com/index.php>, peer viewed, ISSN: 2455-6114, Vol 2, Issue 2, Page No: 1-13, Feb 2016.

Abstract:

The involvement of students in their scholastic pursuits (studies) is called study involvement. Involvement is defined as identification with the task to be accomplished. Interest in any field will make people to involve thoroughly. This involvement is decided by the psychological and environmental factors. For study involvement there are factors like the school, class room environment, the teacher and the individual interest make the students to be more successful in their studies. This descriptive study is to measure the study involvement among rural girl student. A sample of 370 respondents from the universe of 926 girl students was selected by using stratified proportionate random sampling technique. A self prepared questionnaire along with a standardised tool on study involvement was used to collect data. It was revealed from the analysis that nearly three fourth (70%) of the respondent's perceived average level of study involvement. 22.4 per cent of them had high involvement in studies and the rest of the (7.6 per cent) respondents perceived low study involvement. Thus majority of the respondents had average level of study involvement.

- 24. Ms.K. Shenbaham and Ms.A. Manonmani** - “A Study on Impact of Job Involvement towards Organizational Commitment and Job Satisfaction”, International Journal of Humanities and social science Research, www.socialresearchjournals.com, RJIF: 5.22, peer reviewed, ISSN: 2455-2070, Vol 2, Issue 3, Page No: 24-28, March 2016.

Abstract:

Job involvement is defined as the degree to which a person identifies psychologically with his or her work and the importance of the work in the person's total self-image. Employee work attitudes and found that while advice giving and advice receiving were positively related to job involvement, only advice receiving was positively related to work-unit commitment. Job involvement is strongly affected and can be perceived as a reflection of work experiences. Individuals, may become involved in their jobs in response to specific attributes of the work

situation. Job involvement as an attitude is an important variable that helps in maximizing organizational effectiveness. The higher the degree of job involvement of the members in the organization, greater the effectiveness. In order to improve the degree of job involvement, one must have a realistic view of what determines it. Among the various views on job involvement, the most realistic one would be that it is a function of personality and organizational climate. Job involvement may directly affect inter role conflict.

- 25. Ms.N. Sherrin Sophia and Ms. N. Janani** – “Partner Preferences among Devanga Chettiar Community Youth at Panruti, Tamil Nadu”, Golden research thoughts, <http://aygrt.isrj.org>, IF: 3.4052(UIF), peer reviewed, ISSN: 2231-5063, Vol 5, Issue 9, Page No: 1-4, Mar 2016.

Abstract:

Marriage has become a commercial business in India. Partner preferences have changed from genuine expectations to ridiculous expectations among the youth. Weddings have turned into veritable showpieces. The present study has focused on partner preferences for marriage among the youth at Devanga Chettair Community at Panruti, Tamil Nadu. A self prepared interview schedule was used to collect the data from 40 male respondents through purposive sampling technique. The findings revealed that 52% of the respondents preferred receiving customary gifts (dowry) from their respective partners, 66% of them preferred rich partners to lead a luxurious life after marriage, 66% of them preferred arranged marriages and 96% of the respondent’s expected their parents to consult with them about partner selection. Other major findings are discussed in the paper.

- 26. Ms.E. Deepa** – “A Study on Team Cohesiveness”, International journal of Applied Research, www.allresearchjournal.com, IF: 5.2, peer reviewed, ISSN (Print): 2394-7500, ISSN (Online): 2394-5869, Vol 2, Issue 5, Page No: 302-305, April, 2016.

Abstract:

The term ‘team’ comprises a group of people linked in a common purpose. Teams are especially appropriate for conducting tasks that are high in complexity and have many interdependent subtasks. A group in itself does not necessarily constitute a team. Teams normally have members with complementary skills and generate synergy through a coordinated effort, which allows each member to maximize his or her strengths and minimize his or her weaknesses. Theorists in business in the late 20th century popularized the concept of constructing teams. Differing opinions exist on the efficacy of this new management fad. Some see “team” as a four –letter work: overused and under –useful. Others see it as a panacea that finally realizes the human relations movement’s desire to integrate what that movement perceives as best for workers and as best for managers. Team Cohesiveness refers to the attractiveness which holds the members of the team together. It is the resultant power of a group to think and act as a single unit in pursuit of a common objective. Teams that are highly cohesive are capable of influencing individual behavior. Hence it becomes important to study

the cohesiveness among teams to ensure team effectiveness. All the Staffs working in “TEXON SYTEMS, TRICHY” (about 85 employees) constitute the universe for the purpose of the study. The researcher has adopted Stratified simple Random sampling method.

- 27. Ms.N. Sherrin Sophia and Ms.G. Nivetha** –“Subjective Well Being Among Older Persons at Tiruchirappalli”, International journal of applied research, www.allresearchjournal.com, IF: 5.2, peer reviewed, ISSN (Print): 2394-7500, ISSN (Online): 2394-5869, Vol 2, Issue 5, Page No: 730-732, Apr 2016.

Abstract:

This study was an attempt to analyse the subjective well-being of the aged people at St Antony’s Home for the Aged, Kattur, Tiruchirappalli. A sample of fifty two respondents was selected by using simple random sampling method for this study. Subjective well-being inventory by Rup Nagpal and Helmut Sell (1985) was adopted to collect the data. The present study is descriptive in nature. Majority (64%) of the respondent’s subjective well-being was found to be low and 37% of the respondent’s subjective well-being was found to be high. Educational system should concentrate on moral values of relationships and family bonding. Old age homes for the destitute aged should be encouraged and Government should take measures to provide decent accommodation with medical facilities. Adoption of the aged people should be encouraged among elite groups, celebrities and capable youth, to promote care and responsibility.

- 28. Ms.N. Sherrin Sophia and Ms.K.Rajalakshmi** – “Evil eye doll (Dhrishti Bommai) vendors at Trichirappalli district”, International journal of applied research, www.allresearchjournal.com, IF: 5.2, peer reviewed, ISSN (Print): 2394-7500, ISSN (Online): 2394-5869, Vol 2, Issue 5, Page No: 666-668, May 2016.

Abstract:

The Evil Eye Doll (Drishti Bommai) vendors at Gandhinagar, Tiruchirappalli district were analyzed to understand their living conditions. The data were collected from forty one respondents (head of the family) through census method. A self prepared interview schedule was used to collect the data from the respondents. It was observed that 68% had debts with an exorbitant interest which was very difficult for them to run their family, 68% were not satisfied with their income, 85% reported that evil eye dolls was no more an attractive object among urban and metropolitan residents, 75% agreed that child marriage was practiced in their community, it was surprising to observe that all female children were not allowed to go to school. Government can provide alternative jobs to support their livelihood Education and employment alone can improve their quality of life and prevent child marriages in future.

- 29. Ms.K.Shenbaham and Ms.K.Kavitha** – “Psychosocial problems of mother bringing up their mentally retarded children”, International journal of applied research,

www.allresearchjournal.com, IF: 5.2, peer reviewed, ISSN (Print): 2394-7500, ISSN (Online): 2394-5869, Vol 2, Issue 5, Page No: 578-584, April 2016.

Abstract:

Raising a child who is mentally challenged requires emotional strength and flexibility. The child has special needs in addition to the regular needs of all children, and parents can find themselves overwhelmed by various medical, care giving and educational responsibilities. Whether the special needs of the child are minimal or complex, the parents are inevitably affected. Support from family, friends, the community or paid caregivers is critical to maintaining balance in the home. One or both parents may feel as though they somehow caused the child to be disabled, whether from genetics, alcohol use, stress, or other logical or illogical reasons. This guilt can harm the parent's emotional health if it is not dealt with. Some parents struggle with "why" and experience a spiritual crisis or blame the other parent.

30. **Ms.K.Shenbaham** and **Ms.V.Hemalatha** – “Techniques of controlling employee absenteeism in Kothari sugars & chemicals limited”, International journal of applied research, www.allresearchjournal.com, IF: 5.2, peer reviewed, ISSN (Print): 2394-7500, ISSN (Online): 2394-5869, Vol 2, Issue 3, Page No: 370-374, Feb 2016.

Abstract:

Employee absenteeism is one of the most common workplace problems facing employers in today's workplace. Legitimate illnesses still account for the majority of employee absences, but some studies have shown that less than one-third of absences from the workplace are related to poor health. Most employers offer their workers vacation, sick leave, paid time off, or other kinds of paid and unpaid leave. While employers expect workers to miss a certain number of workdays each year, excessive absences can equate to decreased productivity and can have a major effect on company finances, morale and other factors. So the researcher selected this research study to understand the problem of absenteeism and how the employer can take effort to control this problem around the industry.

31. **Ms.K.Shenbaham** and **Ms.C.Priyanka** – “Empowerment of self-help group members”, International journal of applied research, www.allresearchjournal.com, IF: 5.2, peer reviewed, ISSN (Print): 2394-7500, ISSN (Online): 2394-5869, Vol 2, Issue 2, Page No: 420-422, Jan 2016.

Abstract:

Women constitute 48% of India population, so their development is essential for the process of the overall national development since women and development is one of the important principles of community development. The concept of women empowerment was introduced at the International Women's Conference at Nairobi in 1985. The term empowerment was defined as 'a distribution of social power and control of resources in favor of women'. Women empowerment is an important aspect in the process of development of a community. Women self-help group play a vital role in women empowerment because it makes the women socially

recognized, economically independent, psychologically developed and politically knowledgeable. Self-help groups provide enough opportunity for women to enhance their skills, express their talents and gain confidence in all spheres of life. This scientific paper deals with the perceived level of self-esteem among the self-help group animators of SEVAI-an organization working for women empowerment. The findings of this attempt show that majority of the respondents have high level of self-esteem and they are able to manage their self-help group activities as well as their family responsibilities. A significant percent of the respondents felt that they are self-reliant and agreed that self-help groups enable women empowerment. So as per this descriptive study woman empowerment is ensured through their participation in self-help groups.

Department of Tamil

1. **Dr. R. Vasuki** - சங்க இலக்கியத்தில் சிவ நெறிகள் ஒரு பார்வை, Journal of Classical Thamizh (செம்மொழித்தமிழ்), A bi-annual International Multilateral Tamil Journal, www.rajapublications.com, ISSN: 2321-0737, Vol 3, Issue 1, Page No: 62-66, Jan-Jun 2015.

முன்னுரை:

திருமுறைகளே தமிழில் சிவநெறி இலக்கியமாய் விளங்குகின்றன. திருமுறைகளின் தோற்றம், எந்த அளவு முன் தள்ளிப் பார்த்தாலும் (கி.பி) 3ஆம் நூற்றாண்டிற்கு முன்னே போகாது. அது பற்றியே அதற்கு பின்னவாய் சில நூற்றாண்டுகளை வரலாற்று ஆசிரியர்கள் சமய காலம் என்கின்றனர். ஆகவே, திருமுறைகளின் தோற்றக் காலத்தான் தமிழர்கட்குச் சிவநெறி அறிமுகம் ஆன காலமோ என மலைத்தல் கூடாது. ஏனெனில், சிவம், சிவன் என்னும் பெயர்கள் சங்க இலக்கியங்களில் காணப்படவில்லையென்றாலும், அவை சிவனையே தெளிவாகச் சுட்டும் பெயர்கள் என கருதப்படுகின்றன. அவை, முக்கட் செல்வர், பால்புரை பிறைநுதற் பொலிந்த சென்னி நீல மணிமிடற்று ஒருவன், வெள்ளேறு வலவயின் உயரிய பலர்புகழி திணி தோள் உமையமர்ந்து விளங்கும் இமையா நாட்டத்து மூவெயில் முருக்கிய முரண்மிகு செல்வன முதலாகப் பல பெயர்களில் சிவபெருமானது மாட்சிமைகள் பலவும் வெளிப்படையாகவே விளங்கக் கூறப்படுதலைக் காண்கிறோம். எனவே சங்க காலத்தில் தமிழர்க்குச் சிவன் மிகப் பழக்கமான பழங்கடவுள் என்பது தெளிவு.

2. **Dr. R. Vasuki** - உமர்கய்யாம் கவிதைகள் போக்கும் நோக்கும், நவீன தமிழ் ஆய்வு- Journal of Modern Tamil Research, A bi-annual International Multilateral Tamil Journal, www.rajapublications.com, ISSN: 2321-984x, Vol 3, Issue 1, Page No: 145-147, Apr-Sep 2015.

முன்னுரை:

கவிஞர் உமர்கய்யாம் கி.பி. 11ஆம் நூற்றாண்டில் பாரசீகத்தில் ஆப்கானிஸ்தானை ஒட்டிய குராசான் என்னும் பகுதில் நிஷபூர் நகரத்தில் கி.பி. 1048 – 1131இல் வாழ்ந்தவர். கவிதை, கணிதம், சோதிடம் ஆகிய துறைகளில் புலமை பெற்றவர். இவரது இயற்பெயர் கியாதுபீன் அபுல்பாத் உமார், தம் பெயரோடு கய்யாம் என்ற பெயரையும் சேர்த்துக் கொண்டார். கய்யாம் என்பதற்கு கூடாரம் செய்பவன் என்பது பொருள். மது, மாது, கவிதை இவைகள் தான் மகிழ்ச்சி தருபவை என்று நம்பி வாழ்ந்தவர். இவர் 215 கவிதைகள் எழுதியதாகக் கூறப்படுகிறது. இவரின் கவிதைகளை எட்வர்டு பிட்ஜரால்டு ஆங்கிலத்தில் மொழிபெயர்த்துள்ளார்.

தமிழில் திரு.வி.கல்யாணசுந்தரனார், தங்க செயராமன் ஆசை (கிரியா வெளியீடு) ஆகியோர் கவிதை வடிவில் மொழிபெயர்த்துள்ளனர். கவிஞர் உமர்கய்யாமின் கவிதைகளில் காணப்படும் பொதுமைக் கருத்துக்கள் இங்கு ஆராயப்படுகின்றன.

3. **Dr. A. Deivavalli** - புறனடைச் சூத்திரங்கள் வழி இலக்கண வளர்ச்சி நிலைகள், தமிழ் பொழில், ISSN 2348-1234, Vol 89, Issue 7, pages 246-249, July 2015.

முன்னுரை:

புறனடைச் சூத்திரங்கள் புதிதாகத் தோன்றக்கூடிய இலக்கணக் கூறுகளை மொழியில் சேர்த்துக் கொள்ள வழி செய்யும். தமிழ் மொழியை விளக்குவதற்குப் பல இலக்கண நூல்கள் தோன்றியுள்ளன. முதல்நூல் தொல்காப்பியமாகத் திகழ்கிறது. இந்நூலை அடியொற்றியே இலக்கண நூல்கள் தோன்றியுள்ளன.

எழுத்து நிலையிலான மாற்றங்களைப் பார்க்கும் போது தொல்காப்பியர் மூன்று சார்பெழுத்துகளைக் குறிப்பிட, பவணந்தி முனிவரும் வேறுசில இலக்கண நூலாரும் பத்து சார்பெழுத்துக்களைக் கூறுகின்றார்.

4. **Dr. A. Deivavalli** - தொல்காப்பியம் சொல்லதிகாரப் புறனடைச் சூத்திரங்கள், காவ்யா, International Quarterly journal, peer reviewed, www.kaavyaa.com, ISSN: 2277-9221, Vol 4, Issue 3, Page No: 90-91, July-Sep 2015.

முன்னுரை:

தமிழுக்குக் கிடைத்துள்ள இலக்கண நூல்களுள் மிகவும் தொன்மையானது தொல்காப்பியம் ஆகும். தமிழ்மொழியின் தொன்மையையும், தமிழ் இலக்கியத்தின் பழமையையும் எடுத்துக்காட்டும் சான்றாகத் திகழ்கின்றது. தொல்காப்பியரை அகத்தியரின் மாணாக்கர் பன்னிருவருள் தலைமாணாக்கர் என்பர். எழுத்ததிகாரம், சொல்லதிகாரம், பொருளதிகாரம் பற்றி விரிவாக ஆராய்ந்த நூல் தொல்காப்பியம் ஆகும்.