SHRIMATI INDIRA GANDHI COLLEGE
(Nationally Accredited at 'A' Grade By NAAC)
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Shrimati Indira Gandhi College
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SHRIMATI INDIRA GANDHI COLLEGE
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SHRI.S. KUNJITHAPATHAM, B.Com, B.L
SECRETARY

Our College has been accredited with 'A' Grade by NAAC for the 3rd cycle. This shows that we have been continuously working towards quality sustenance in all perspectives of higher education. We have to improve from the current level of academic standards to a higher level. That is more concentration must be given to teaching learning and research. I see that there is a significant rise in research activity as witnessed by this issue of SIGARIA. Faculty members involved in active research should motivate their fellow faculty to engage themselves in research.

SECRETARY

SHRIMATI INDIRA GANDHI COLLEGE

(Nationally Accredited with 'A' Grade by NAAC)

Chatram Bus Stand, Tiruchirappalli-2, TamilNadu, India.

Dr. S. VIDHYALAKSHMI, *M.Sc., M.Phil, B.Ed., Ph.D*   Phone: 0431-2702797

PRINCIPAL

FOREWORD

I am very happy to find that faculty have created a niche for themselves in research. Specific research areas and research problems have been identified. This research journal plays an integral part in disseminating details of research activities undertaken by various departments. Faculty and students of all departments are requested to pay more attention on research work carried out by others and contribute from their side towards research. I wish them all success in their endeavors.

PRINCIPAL

Email:vidhyasigc@gmail.com

INDEX

1. **Ms. K. Sujatha & Ms. V. Geetha**- "The Role of Management in the Banking Sector", Special Issue, ISSN: 0973-0303, Vol.1, Page No.115-118, August 2014.

Abstract:

As well known, in the economic literature the concept of market failure illustrates among other things necessity of a serious regulation framework be of more importance than the failure of other types of business firms because of the interconnectedness between banking institutions and its adjacent spill over the typically subjected to rigorous regulation framework of banking convergence to approach the pics risk management in terms of quantitative and qualitative indexes of be mechanism represents the most referential framework of micro prudential banking risk management of banking instruments and manager behavior in the context of efficiency.

Department of Business Administration

1. **Ms. A. Kavitha-** "Marketing Strategies for Logistics", Jamal Academic Research Journal an Interdisciplinary, ISSN: 0973-0303, Vol.2, Page No.285-286, Jan 2015.

Abstract:

In the papers authors showed actual topic concerning connection between marketing and logistics and their spheres. The paper is divided in to four main paragraphs which include: good's distribution and marketing instruments, logistics and logistic – marketing management. Marketing could not exist without logistics and logistics could not without marketing – this main point authors tried to improve in following papers. All positive and negative factors of relation between marketing and logistics were shown. This relation created modern management-logistic – marketing management.

2. **Ms. U. Lavanya-** "Marketing Strategies of small Scale Industries: A Review", Jamal Academic Research Journal an Interdisciplinary, ISSN: 0973-0303, Vol.2, Page No.287-288, Jan 2015.

Abstract:

The aim of the paper is to investigate the factors influence the price decision, selection of distribution channels by the SSI. In the era of Globalization small manufacturers are facing lot of problem in area of marketing mix such as product planning and positioning, pricing and distribution issues. The entrepreneur's perception

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3. **Ms. J. Saradha** – "Sustainable Development of Green marketing-challenges and opportunities", Jamal Academic Research Journal an Interdisciplinary, ISSN: 0973-0303, Vol.2, Page No.279-281, Jan 2015.

Abstract:

In the modern era of globalization, it has become a challenge to keep the customers as well consumers on fold and even keep our natural environment safe and that is the biggest need of the time. Consumers are also aware of the environmental issues like; global warming and the impact of environmental pollution. Green Marketing is a phenomenon which has developed particular important in the modern market and has emerged as an important concept in India as in other parts of the developing and developed world, and is seen as an important strategy of facilitating sustainable development. In this research paper, main emphasis has been made of concept, need and importance of green marketing. The paper describes the current Scenario of Indian market and explores the challenges and opportunities businesses have with green marketing.

4. **Ms. P. Shobana-** "Role of Organization in Welfare Measures for Employees", Jamal Academic Research Journal an Interdisciplinary, ISSN: 0973-0303, Vol.2, Page No.277-279, Jan 2015.

Abstract:

The outlook to Human Resource Management in India has witnesses sea-change in last two decades. Economic liberalization in 1991 created a hyper-competitive environment. As international firms entered the Indian market bringing with them innovative and fierce competitiveness, Indian companies were forced to adopt and implement innovative change in their HR practices. Increasing demand for skilled performance forced the companies' marketplace. The organizations have realized that their biggest asset is their employees and not the financial resources.

1. **Ms. P. Lakshmi Prabha – "**An Investigation of Adsorption of Manganese (II) on to the Glay collected from a Pond in Tiruchirappalli India", World Journal of Pharmacy and Pharmaceutical sciences, Peer Reviewed, Indexed, Impact factor:5.210, ICV: 5.76, ISSN: 2278-4357, http://www.wjpps.com, Vol. 4(6), Page No. 714-723, 2015.

Abstract:

Adsorption of manganese (II) ions by natural clay was studied by the batch mode technique. The influence of pH, particle size, contact time, initial concentration of the adsorb ate and temperature were experimentally verified. The results revealed that the adsorption of manganese (II) by natural clay is exothermic and also proved that th natural clay is effective in adsorption ion exchange process.

Department of Commerce

1. **Dr. B. Jayalakshmi – "**A study on the consumer Behavior Of edible Oil in pudukottai District of Tami Nadu", Research Explorer, ISSN:2250-1940, www.selptrust.org, Impact Factor: 0.389, Vol. 3(9), July- December 2014.

Abstract:

This study focused on consumer behavior of edible pudukottai district. Consumer Behavior research is vital in formulating marketing strategies because knowledge of the factors that influence consumer purchase can help in for giving suitable plan to increase market share Knowledge of the psychological and socio cultural factors operating on consumers enable the marketers to make prediction about the consumer's reaction to new products, price changes promotional campaigns and their needs and wants. Causing awareness and preference is essential in modern marketing. This study will help in identifying different marketing segments and shaping consumers desires and aspirations.

2. **Ms. A. Hemalatha** - "A Study on Antecedents of Brand Loyalty in the Toilet Soap Market", International Journal of Management, (ISSN 2277 – 5846) , Indexed, IF: 7.2230, http://www.theijm.com/, Vol. 5(10), Page No. 51-57, October 2014.

Abstract:

Winning brands are one of the most important ways for a company to achieve competitive advantage and superior performance. In the present scenario the main workings for the brand is sustenance, sustainability and sustained advantage to retains its customers and make them loyal users of the brand. One of the most significant challenges for the brand managers are understands the relationship between loyalty and its antecedents. In the toilet soap market no single brand enjoys maximum market share.

The study is descriptive and cross section in nature. The data collected from consumers of Tiruchirappalli. Both primary and secondary data were

considered for the study. The primary data were collected from the questionnaire. The questionnaire consists of six dimensions. The dimensions are Behaviors Loyalty, Attitudinal loyalty, Hedonic Value, Brand satisfaction, Brand equity, Brand value and Brand Trust. The questionnaire were distributed to consumers who made purchase of toilet sops in leading stores in Tiruchirappalli.

As brand loyalty is found to be combination of several components, all the antecedents considered for the study should be given equal importance. In toilet soap industry, a string brand builds the foundation of business performance. The results of path analysis shows that Brand satisfaction, Brand equity and Brand trust higher impact with behavior loyalty. Brand value and Hedonic value has higher impact with attitudinal loyalty.

3. **Ms. A. Hemalatha-** " A Study of Brand on Toilet Soaps Buying Behaviour of Female Consumers in Tiruchirappalli", International Association for Engineering and Management Education (IAEME), Peer Reviewed, www.iaeme.com, IF: 4.7830, Vol. 5(5), Page No. 11-21, Sep-Oct 2014.

Abstract:

Today, marketing is full of competition. Earlier the marketers used superiority in manufacturing or scale or sales for the winning the competition. But in the recent times, sheer superiority of manufacturing does not guarantee success. A good product is essential for entering into market but it is not sufficient. Quality products are every common in the market but very few products succeed. Even though, there are abundant products in the market, a very few products win the consumers heart and soul.

Women in today's market cannot be considered as a homogenous group. Their diversity in terms of psycho-social status must be accepted and taken into consideration by in the marketers in segmenting market. It has been recognized that women who work outside their home are a large

and growing market segment whose needs differ from those who are at home. Employment status has given a brand new dimension to hw segmentation practices female consumers, and its importance is likely to rise as more and more women go in for higher education and also aspire to work.

In the current era of choice of information, it is important to understand the significance of 'Brand Loyalty' as a concept in the marketing fraternity. The women's buying behaviors literature in developing countries is inadequate and ambiguous. The study identified the significant role of brand loyalty factors like services quality, Product quality and Brand name, price of products Design of the products promotion aspects and store environment towards brand loyalty on women's purchasing behavior toilet soaps in Tiruchirappalli.

The study identified that brand name influence brand loyalty towards toilet soaps. In the present changing buying behavior brand loyalty is important for any organization to ensure that their product is kept in minds of consumers and it will reduce the switching to other brands. Marketers should find it useful that loyalty factors that can be affect women buying behaviors market place, which can help in segmenting consumers and market for their brands and marketing communication.

4. **Dr. B. Jayalakshmi –** "Social Entrepreneurs an Overview", International Journal of Research and Business Innovation (IJRBI), Peer Reviewed, ISSN: 2321-5615, Impact factor: 1.53, http://www.ijrbi.in/about-ijrbi.html, Vol. 3(6), Page No: 104-107, Feb 2015.

Abstract:

Social entrepreneurs are society's change agents, creators of innovation that disrupt the status quo and transform our world. By identifying the people and programs already bringing positive change, we

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empower them to extend their reach, deepen their impact and fundamentally improve society.

They range from Jim Fruchterman of Benetech, using technology to address social problems such as the reporting of human rights violation, to john Wood of Room to Read, helping underprivileged children through literacy. They include Maria Terasa Leal, whose sewing cooperative in Brazil respects the environment and fair Labour Respects and practices, and Inderjit Kharuna who teaches homeless children in india at the train stations where they beg.

5. **Dr. B. Jayalakshmi –** "A Study on Edible Oil Sectors in India", SELP Journal of Social Science", ISSN: 0975-9999, http://www.selptrust.org/sjnl.aspx, Vol. VI(23), Page No:35-38, Jan-March 2015.

Abstract:

India is a leading user of edible oil after china and E U countries =, and per capita consumption of edible oil hovered around 14.4 kg per annum in 2013-2014. The country dependence on edible oil import increased over the recent years due to rapid rise in consumption and stagnant production. Over 60% of the country edible oil demand is met through imports. In order to reduce dependency on import and achieve self-sufficiency, The government of India has initiated several programmes to increases domestic oilseed production.

1. **Ms. K. G. Prasanna Sivagami- "**An Investigation of Women Lifecycle Stages and Their Influence on Food Shopping Behaviour", Zenith International Journal of Business Economics & Management Research, ISSN: 2249-8826, Impact Factor: 40134, Index Copernicus Value : 5.19, www.zenithresearch.org.in, Vol. 4(8), Page No: 86-98, August 2014.

Abstract:

Women across the world are expanding beyond traditional roles to influence decisions in the home, in business and in politics. Give such an important emerging role of women, it is so significant for the retail firms to identify, analyze the aggregate their shopping behavior across various category especially in food. This paper is an attempt to contribute to the body of knowledge of retail research with a focus on WLC stage and its influence on women food shopping behavior. Based on few demographic variables such as marital status, no. of children and status of children of the respondents were groped across 8 Women Life Cycle stages such as Single Adults, Married woman with no children, women with young children I (in family way), Women with Young Children II (with new born) Women with Young Children III (with toddler), Women with grownup children I(with school going child), Women with grownup children II(with college going child) and Women with later stage. Findings of the study indicates the preference of store format is different across the WLC stages and even within a particular food category the preference changes.

2. **Dr. J .Francis Mary and Ms. G. Rathika -** "Environmental Accounting and Firm Profitability" International Journal of Business Intelligence and Innovations, http://www.inderscience.com/, ISSN: 2348-4705, Vol. 1(1), Page No: 216-218, Sep 2014.

Abstract:

Accounting for environment helps in accurate assessment of costs and benefits of environmental preservation measures of companies (Scaltegger, 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). The Severity of environmental problems as a global phenomenon has its adverse impact on the quality of our life.. Measures are being taken both at the national and international level to reduce, prevent and mitigate its impact on social, economic nad political spheres. The emergence of corporate environmental reporting (CER) in India has been an important development, both for better environmental management and overall corporate governance. Global awareness of stakeholders on corporate environmental performance has already made traditional reporting redundant.

3. **Dr. J .Francis Mary and Ms. G. Rathika** - "Factors affecting The Share prices movement of Large IT Cap Companies an Empirical Study" Nehru Journal of Management and Research, ISSN: 2230-7974, Vol. 1(1), Page No: 216-218, Sep 2014.

Abstract:

Risk and income are always interrelated. The retail investors perceive that they should earn more but with less risk. Shares and stocks are one of the best investments an investor can make – if he picks the right ones. It is crucial to make the right choice. However, there is no specific rule for the selection if right shares. It could be noted that the time tested rules of investing would enable the investor to make his investment a profitable

one. From the study the Exchange rate fluctuation and Earnings per share are the two main factors that explain the share are the two main factors that explain the share price movement well.

4. **Dr. J .Francis Mary and Ms. G. Rathika** - "A Study on Exchange rate Movement and Stock Market Volatility", Nehru Journal of Management and Research, ISSN: 2230-7974, Vol. 1(13), Page No: 93-99, Dec 2014.

Abstract:

This paper analyzes the relationship between nifty returns and Indian rupee- US Dollar Exchange Rates. Several statistical tests have been applied in order to study the behavior and dynamics of both the series. The paper also investigates the impact of both the time series in each other. The period for the study has been taken from September, 2010 to September 2014, using daily closing indices. In this study, it was found that Nifty returns as well as Exchange Rates were non-normally distributed. Through unit root test, it was also established that both the time series, Exchange rate and Nifty returns, were stationary at the level from itself. Correlation between the two and Exchange Rates was found to be negative. Further investigation into the casual relationship between the Exchange variables using Granger Causality test highlighted unidirectional relationship between Nifty returns and Exchange Rates, running from the former towards the latter.

5. **Dr. S. Umaprabha-** "A study on Technical Analysis of stocks Listed in NSE with reference to Pharmaceutical industries" International Journal of Management (IJM) ISSN: 0976-6510, http://www.iaeme.com, Peer Reviewed, IF: 7.2230, Vol. 6(1),Page No. 79-86, January 2015.

Abstract:

Technical Analysis is the study of the stock market with respect to factors affecting the supply and demand of stocks helps to understand the

intrinsic value of shares and to know whether the shares are undervalued or overvalued. The stock market indicators would help the investor to identify major market turning points. This is a significant technical analysis of selected companies which helps to understand the price behavior of the shares, the signals given by them and the major turning points of the market price. Any investor or trader must certainly consider technical analysis as a tool whether to buy the stock at a particular point of time though it is fundamentally strong. The objective of this paper is to make a study on the technical analysis of selected stocks of Pharmaceutical sector and interpret whether to buy or sell them by using techniques. This in turn would help investors to identify the current trend and risks involved with the scrip on par with market. This study is purely based on data provided on stocks Exchange (NSE). For the purpose of analysis, techniques like Beta, Relative Strength Index and Simple Moving average are used and the strength of stock is inferred.

6. **Ms. A. Shanthi**- "The Volatility of stock prices as listed in use NSE with reference to banking sector", Jamal Academic Research Journal, ISSN: 0973-0303, Page No. 107-113, January 2015.

Abstract:

The Indian stock market has been assigned an important place in financing the Indian corporate sector. Volatility in the prices of stock, adversely affects individual earnings and the health of the economy. Volatility in the prices of stock can arise for several reasons. It is therefore important to understand the nature of volatility in the Indian stock Market using new sets of data and new methods of examining the behavior of volatility. This study examines the pattern of Volatility using the closing prices of stocks in banking sector as listed in the NSE. The major objectives of the study are, (i) to understand the volatility of stock prices with regard to the selected banking sector (ii) to identify the level of stock position of

selected banking sector (iii) to test the share price movement of selected banking sector. The data collected for the research is based on stock price, which are listed in NSE. This study was analyzed with the help of Augmented Dickey Fuller Test (ADE), Jung box statistics and Generalized Autoregressive conditional Heteroscedasticity (GARCH) technique in Reviews. The result of the study reveals the presence of volatility in the selected Banking sector. The descriptive statistics of banking sector's market return suggest that the volatility in stock market exhibits the persistence of volatility and its behavior.

7. **Dr. J. Francis Mary and Ms. G. Rathika** - "The single Index Model & The Construction of Optimal Portfolio with CNX Pharma Scripts" International Journal of Management (IJM) ISSN: 0976-6510, http://www.iaeme.com, IF: 7.2230, Vol. 6(1), Page No. 87-96, January 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.

8. **Dr. S. Umaprabha-** A Study on Emotional Intelligence and Leadership Styles in Bharat Heavy Electricals Limited(BHEL), Tiruchirappalli", International Journal of Human Resource Management and Research,

Abstract:

Effective leadership is critical for today's rapidly changing organizations. Emotional intelligence has been identified by some as a crucial element needed for this effective leadership. Emotional intelligence involves ability of self awareness, self-regulation, self-motivation and understanding one's emotions and managing relationships. A Leadership styles that can be exhibited by leaders at different fields. This paper attempts to identify the relationship between Leadership style and emotional intelligence. This study was conducted on employees of Bharat heavy Electricals Limited (BHEL), Tiruchirappalli. A structured Questionnaire was developed and modified to gather information. The results from this study continue to add to the knowledge base existing on emotional intelligence and its relationship to leadership.

9. **Dr. J. Francis Mary –"** Investor Risk Perception in Share Trading", INDO Global Journal of Applied Management Science, ISSN: 2320-7892, http://kongujournals.com/igjams.php, Vol. 3(1), Page No:109-113, April 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. Give 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 investor's 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 alternative and to develop a framework within which the investors risk profile can be viewed.

10. **Dr. S. Umaprabha-** "A Study in Measuring Effectiveness of Pay and Perquisites at Capegemini, Trichy", Indo Global Journal of Applied Management Science, ISSN: 2320-7892, http://kongujournals.com/igjams.php, Vol. 3(1), Page No: 105-108, April 2015.

Abstract:

Pay and Perquisites refers to the extrinsic rewards that employees receive in exchange for their work. It is composed of the base wage or salary and incentives or bonuses and any benefits "Pay and perquisites is a key factor in attracting and keeping the talent employees and ensuring that the organization has the competitive edge in an increasingly competitive world. The objectives of the study or to measure effectiveness of pay and Perquisites at Capgemini, Trichy and to analyze the satisfaction of workers to the regards to the various types of pay and perquisites and to identify the relation between performance and compensation package including benefits.

Department of Computer Science, Information Technology and Computer Applications

1. **Dr. M. Manimekalai, Ms. S. Rethinavalli, Dr. K. Meena-** "A Literature Review on polycystic Ovarian Syndrome and Data Mining techniques", International Journal of Advanced Research in Computer science and Software Engineering, www.ijarcss.com, ISSN: 2277-128X, IF: 2.5, peer-reviewed, Indexed, Vol. 4(12), Page No. 780-785, Dec 2014.

Abstract:

The women's in the age of reproduction, the heterogenous, complex and multifaceted disease called as PCOS affects about 5 to 10 % of the women. Metabolic syndrome called as hypertension, hyperinsulinemia, abdominal obesity and dyslipidemia and these are characterized along with the resistance of insulin like chronic anovulation, hyperandrogenism and polycystic ovaries which ends with the series disease like coronary disease, endometrial hyperplasia and type 2 diabetes mellitus these are long term consequences. Anovulatory infertility is commonly most caused by means of the one of the above. Depending on the ethnic background, the PCOS is variable with the phenotype of women and its mostly determined by metabolic alterations and obesity and it goes on to the postmenopausal age starting from the adolescence which change during the life span due to the PCOS with many number of attributes , an approach that used to store and manipulating the valued data for predicting the causes earlier and this process in information technology is called as data mining. In this paper, we have reviewed the causes syndrome of the PCOS, treatment for PCOS and the data mining techniques that used to predict the factors which leads to serve disease in future by means analyzing the important factors and classify them for better result.

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2. **Dr. M. Manimekalai, Ms. R. Ruth Anitha, and Ms. S. Aathi-** "Integrating and Classification of Facial Expressions to Children with Autism Spectrum Disorders", International Journal of Information & Computation Technology, Peer Reviewed, and ISSN: 0974-2239, http://www.irphouse.com, Vol.4 (1), Page No. 47-54, 2014.

Abstract:

Autism Spectrum Disorders a neuro-developmental disability in children is a cause of major concern. The children with ASDs find it difficult to express and recognize emotions which make it hard for them to interact socially. Conventional methods use medicinal means, special education and behavioral analysis. They are not always successful and are usually expensive. There is a significant need to develop technology based methods for effective intervention and cure. We propose an interactive game design which uses modern computer vision and computer graphics techniques. This game tracks facial features and uses tracked features to: 1) recognize the facial expressions of the player, and 2) animate an avatar, which mimics the player's facial expressions. The ultimate goal of the game is to influence the emotional behavior of the player.

3. **Dr. M. Manimekalai, and Ms. D. Dhivya-** "Enhancing Education among High- Functioning Children Autism using Data Mining", International Journal of Information Sciences and Application, Peer Reviewed, ISSN: 0974-2255, http://www.irphouse.com, Vol.6(1), Page No. 11-20, 2014.

Abstract:

Education of people with special needs has recently been considered as a key element in the field of medical education. Recent development in the area of information and communication technologies may enable development of collaborative interactive environment which facilitate early stage education and provide specialists with robust tools indicating the person's autism spectrum disorder level. Towards the goal of establishing an

enhanced learning environment for children with autism this paper attepts to provide a framework of a semi-controlled real-world environment used for the daily education of an autistic person according to the scenarios selected by the specialists. The proposed framework employs both real-world objects and Virtual environments equipped with humanoids able to provide emotional feedback and to demonstrate empathy. Potential examples and usage scenario for such environments are also described.

4. **Dr. M. Manimekalai, Ms. A.E. Aarthi Priya and Ms. S. Brindha-** "Evaluating the Behavioral and Developmental Interventions for Autism Spectrum Disorder', International Journal of Information Sciences and Application, Peer Reviewed, ISSN: 0974-2255, http://www.irphouse.com, Vol. 6(1), Page No. 1-10, 2014.

Abstract:

The number of children diagnosed with Autism Spectrum Disorder has increased in the past few years and the root cause of the symptom cannot yet be determined. The diagnosis today relies heavily on the observation of children's behaviors. This paper presents a technique to investigate the behavior factor associations, and to classify these relations using classification based on association. Our experiments used actual patient profile from two hospitals in Thailand. This dataset was categorized by doctors into two types. Autism and pervasive Development disorder these results show several interesting behavior patterns in autism disorder. These results provide valuable information for doctors to conduct further studies in the early intervention of autistic symptoms. The goal of our research is to develop a data analysis tool to aid doctors in the diagnosis process in the future.

5. **Dr. M. Manimekalai, Ms. S. Rethinavalli, Dr. K. Meena**- "A Novel Framework for Filtering the PCOS Attributes using Data Mining Techniques" International Journal of Engineering Research & technology , Peer Reviewed, ISSN: 2278-0181, www.ijert.com, IF: 1.76, Vol. 4(1), Page No. 702-706, Jan 2015.

Abstract:

From a large amount of Data, the significant knowledge has been discovered by means of applying some techniques and this kind of techniques in knowledge management process are known as Data mining techniques. And for a specific domain, a structure of knowledge discovery is called as data mining and it is used to solving the problems. The classes of unknown data are detected by the technique called classification. Neural networks, rule based decision trees, Bayesian are some of the existing methods used for the classification. Moreover, it is necessary to filter the irrelevant or unclosed attributes before applying any mining techniques. Embedded, Wrapper and filter techniques are different feature in selection techniques which is used for Filtering. The most common endocrinological issue which pretending the women are PCOS. The higher prevalence for the patients with PCOS are obese than the general population about 50%. The long-term morbidity is resulted by means of insulin resistance due to the condition of the metabolic element. This present research focuses the attributes selection techniques like information Gain Subset Evaluation and our proposed ,method Neural Fuzzy Rough Subset Evaluation for selecting attributes for the large number of attributes, and search methods like Best First Search is used for neural fuzzy rough subset evaluation, and Ranker method is applied for the information gain Evaluation.

6. **Ms. V. Mathimalar & Ms. S. Hemalatha** – "Secure data Aggregation using Efficient Key Management Technique in wireless Sensor Network",

International Journal of Computer Applications, **Peer Reviewed**, ISSN: 0975-8887, http://ijcaonline.org/, Vol. 8(9), March 2015.

Abstract:

Data aggregation is an effective technique in wireless Sensor Network because it reduces the number of pockets sent to sink and increases the lifetime of sensor network by aggregating the similar packets. This techniques 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 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 techniques is used for aggregate the total computation outputs and to identify the total number if failures within the environment.

7. **Dr. M. Manimekalai and Ms. S. Regha - "**Survey of Hardware Platform Available for Big Data Analytics Using K-means Clustering Algorithm", International Journal of Science and Research (IJSR), ISSN: 2319-7064, Peer Reviewed, ICV: 6.14, Impact Factor: 4.438, http://www.ijsr.net/index.php, Vol. 4(4), Page No: 2815-2820, April 2015.

Abstract:

The purpose of this paper is to provide an in-depth analysis of different platform available for performing big data analytics. This paper review the different hardware platforms available for big data analytics and assess the advantages and Negative aspects of each of these platforms based on various metrics such as scalability, data I/O rate, fault tolerance, Concurrent

processing, data size supported and iterative task support. In addition to the hardware, a detailed description of the software frameworks used within each of these platforms is also discussed along with their strengths and Weakness. Some of the critical characteristics described here can potentially aid the readers in making an informed decision about the right choice of platforms depending on their computational needs. Using a star ratings table, a rigorous qualitative comparison between different platforms is also discussed for each of the six characteristics that are critical for the algorithms of big data analytics.

8. **Ms. N. Vijayalaksmi and Dr. K. Meena – "**Analysis of Factors Causing Infertility in Women using statistical Analysis and Association Rule Mining", Indian Journal of Public Health Research & Development, Peer Reviewed, http://www.ijphrd.com/, Vol.6(2), Page No:112-117, April-June 2015.

Abstract:

Statistical Hypothesis Testing methods and Association Rule Mining through frequent Item-set mining have been use to analyze and mine knowledge on significant factors causing infertility in women. Even though there are a number of factors causing infertility in women, only there significant factors namely Age, Body Mass Index and Thyroid Stimulating Hormone Levels during prenatal periods have been taken for analysis. Sample data was collected from the case sheets of outpatients visiting a fertility centre and maternity Hospital at Trichy. Out of several independent attributes preliminary study. The aim of the study is to assess the significance of the said factors in the light of fertility in women. Common attributes have been considered among an equal sample size of fertile and infertile outpatients. The results of the study show that he attributes considered are significant in determining fertility of women both individually

and together. It is found that age significantly influences Body Mass Index and Thyroid Stimulating Hormone Levels. It is also found that obesity triggers changes on hormonal levels.

9. Ms. D. Meenakshi and Ms. V. Karthigadevi- "Literature Review of Image Compression Technique", International Journal of Computer Science & Engineering Technology, ISSN: 2229-3345, Vol. 6(5), Page No: 286-288, May 2015.

Abstract:

Image compression is an efficient technique to reduce the size of graphical file and also reduce storage requirement area. Image compression makes the faster transmission process as well as provides larger bandwidth and also provides security for the data transmission. In this paper provides basic information about image compression techniques and its types and also give the benefits related to these compression techniques. In addition to reduces the instant time necessary used for images to be send in excess of the Internet otherwise downloaded as of Web pages.

10. Dr. M. Manimekalai and Ms. S. Regha – "Rapid and Sensitive Dot Matrix Methods for Genome Analysis", International Journal of Computer science Engineering (IJCSE), Peer Reviewed, ISSN: 2319-7323, http://www.ijcse.net, Vol. 4(4), Page No: 113-115, July 2015.

Abstract:

Dot- matrix plots are widely used for similarity analysis of biological sequences. Many algorithms and computer software tools have been developed for this purpose. Two dot matrix comparison methods have been developed or analytical of large sequences. The methods initially locate similarity regions between two sequences using a fast word search algorithm, followed with an explicit comparison on these regions. The methods produce high quality dot-matrix plots with low background noise.

Space requirements are linear, so the algorithms can be used for comparison of genome size sequence.

Simple sequence Repeats (SSR) or micro satellites are becoming standard DNA markers for genome analysis and are being used as markers in marker assisted breeding. De novo generation of microsatellite marker through laboratory- based screening of SSR enriched genomic libraries is highly time consuming and expensive. A tandem repeat in DNA is two or more adjacent, approximate copies of a pattern of nucleotides. Tandem repeats Finder is a program "**to locate and display tandem reports in DNA sequences".** In order to use the program, the user submits a sequence in FASTA format.

1. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.G. Sumathi – "**Special $D(k^2 + 1)$ DIo – quadruple Involving Jacobsthal Lucas and Thabit – Iban-Kurrah Numbers", International Journal of Mathematics Trends and Technology, ISSN: 2231-5373, http://www.ijmttjournal.org, Peer Reviewed, Indexed, Vol. 11(2), Page No. 77-80, Jul 2014.

Abstract:

We Search for three distinct integers a,b,c such that product of any two from set added with k-times their sum and increased by $k^2 + 1$ is a perfetc square. Also, we show that the triple can be extended to the quadruple with property $D(k^2 + 1)$

2. **Dr. M.A. Gopalan, Ms. T.R. Usharani, and Dr. S. Vidhyalakshmi-** "Homogeneous Bi-Quadratic Equation with four Unknowns $(x + y)(x^3 + y^3) = 52z^2w^2$", Scholars Journal of Physics, Mathematics and Statistics, Peer Reviewed, ISSN: 2393-8056, Indexing and Abstracting- Google Scholar, Journal Index Net, Cite Factor, World Cat, Research Bible, Indian Citation Index, http://saspjournals.com/sjpms, Vol. 1(2), page No. 48-52, 2014.

Abstract:

We obtain infinitely many non-zero integer quadruples satisfying the Biquadratic equation with four unknowns. Various interesting properties among the values of X,Y,Z and W are presented.

3. **Dr. M.A. Gopalan, Ms. T.R. Usharani, and Dr. S. Vidhyalakshmi-** "Integral Solutions of the Ternary cubic Equations $5(x^2 + y^2) - 9xy + x + y + 1 = 35z^3$", International Journal of Research in Engineering and Technology, ISSN: 2321-7308, IF: 2.375, Peer Reviewed, IC Value: 5.20, http://ijret.org/, Vol. 3(11), Page No. 449-452, Nov-2014.

Abstract:

The ternary cubic equation $2(x^2 - y^2)(2(x^2 + y^2) - 3xy) = 11(z^2 - w^2)T^2$ is considered for determining and its non-zero distinct integral solutions Employing the linear transformations x=u+v, y=u-v (u≠v≠0) and employing the method of factorization in complex conjugates, different patterns of integral solutions to the ternary cubic equation under consideration are obtained. In each pattern, interesting relations among the solutions, some special polygonal, pyramidal numbers and cengtral pyramidal numbers are exhibited.

4. **Dr. M.A. Gopalan, Ms. T.R. Usharani, and Dr. S. Vidhyalakshmi**- "Homogenous Bi-Quadratic Equation with five unknowns $2(x^4 - y^4) = z(p^3 + q^3)$", International Journal of Mathematics Research, ISSN: 0976-5840, http://www.ripublication.com/, Vol. 6(3), Page No. 245-251, 2014.

Abstract:

We obtain infinitely many non-zero integer quadruples satisfying the Biquadratic equation with four unknowns. Various interesting properties among the values of X,Y,Z and W are presented.

5. **Dr. M.A. Gopalan, Ms. S. Mallika, and Dr. S. Vidhyalakshmi**- "Integer Points on the Hyperbola $x^2 - 4xy + y^2 + 16x = 0$", Scholars Journal of Physics, Mathematics and Statistics, Peer Reviewed, ISSN: 2393-8056, Indexing and Abstracting- Google Scholar, Journal Index Net, Cite Factor, World Cat, Research Bible, Indian Citation Index, http://saspjournals.com/sjpms, Vol. 1(2), page No. 81-83, 2014.

Abstract:

The binary quadratic equation $x^2 - 4xy + y^2 + 16x = 0$ representing hyperbola is considered. Different patterns of solutions are obtained. A few relations between the solutions are exhibited.

6. **Dr. M.A. Gopalan, Dr. S. Vidhalakshmi, Ms. S. Mallika**- "Integral Solutions of $x^3 + y^3 + z^3 = 3xyz + 14(x + y)w^3$", International Journal of Innovative Research and Review, ISSN:2347-4424, http://www.cibtech.org/jirr.htm, Vol. 2(4), Page No. 18-22, 2014.

Abstract:

The non- homogeneous equation represented by $x^3 + y^3 + z^3 = 3xyz + 14(x + y)w^3$ is analyzed for its non-zero distinct integral solutions. Four different methods have been presented for determining the integral solutions of the non-homogeneous biquadratic equation under consideration. Employing the integer solutions, a few relations between the solutions and special polygonal numbers are presented. Also, knowing an integer solution formula for generating sequence of solutions are given.

7. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi, and Ms. M.Revathi-** " On the ternary Quadratic Diophantine Equation $X^2 + Y^2 = 29Z^2$", Bulletin of mathematics and Statistics Research, Peer Reviewed, ISSN: 2348-0580, http://www.bomsr.com, Vol. 2(3), Page No. 301-305, 2014.

Abstract:

The ternary quadratic homogeneous equation representing homogeneous cone given by $X^2 + Y^2 = 29Z^2$ is analyzed for its non-zero distinct integer points on it. Four different patterns of integer points satisfying the cone under consideration are obtained. A few interesting relations between the solutions and special numbers patterns namely polygonal number and Nasty number are presented. Also knowing an integer solution satisfying the given cone, three triples of integers generated from the given solution are exhibited.

8. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi, and Ms. D.Maheswari-** "On the binary Quadratic Diophantine Equation $x^2 - 7xy + y^2 + 5x = 0$", International Journal of Engineering Sciences and research technology, Peer reviewed,

Abstract:

The binary Quadratic Diophantine Equation $x^2 - 7xy + y^2 + 5x = 0$ representing hyperbola is considered and analyzed for its integer points. A few interesting relations satisfied by x and y are exhibited.

9. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.A. Kavitha- "Integr**al solutions of the Heptic Equation with five variables $x^3 - y^3 + (x^2 + y^2) + z^3 - w^3 = 2 + 11(x - y)p^6$ ", International Journal of Innovative Research in Technology, Peer Reviewed, Impact Factor: 2.1, ISSN: 2341-6002, http://www.ijirt.org/, Vol. 1(11), Page No:297-302, 2014.

Abstract:

The non-homogenous Diophantine equation of degree seven with five variables represented by $x^3 - y^3 + (x^2 + y^2) + z^3 - w^3 = 2 + 11(x - y)p^6$ is analyzed for its non-zero distinct integer solutions. A few interesting relation between the solutions and special numbers namely Polygonal numbers, Pyramidal numbers, centered Polygonal numbers are exhibited.

10. **Dr. M.A. Gopalan, Dr. S. Vidhalakshmi, Ms. S. Mallika- "On Ternary** Quadratic Diophantine Equation$8(x^2 + y^2) - 15xy = 80z^2$", Bulletin of Mathematics and Statistics Research, (Peer Reviewed) http://www.bomsr.com/, ISSN: 2348-0580, Vol. 2(4), Page No. 429-433, 2014.

Abstract:

The ternary quadratic homogeneous equation representing homogeneous cone given by $8(x^2 + y^2) - 15xy = 80z^2$ is analyzed for its non-zero distinct integer points on it. Employing the integer solutions, a few relations between the solutions and special polygonal numbers are presented. Also, knowing an integer solution formula for generating sequence of solutions are given.

11. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi, & Ms. A. Kavitha –** "On a Family of D(1) Strong Rational Diophantine quadruples", International Journal of innovative Research and Review, ISSN: 2347-4424, http://www.cibtech.org, Vol. 2(3), Page No. 8-12, July-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.

12. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi and Ms. J. Shanthi-** "On Ternary Quadratic Diophantine Equation $3(x^2 + y^2) + 5xy + x + y + 1 = 15z^2$ ", International Journal of Innovative Science, Engineering& Technology, Peer reviewed, ISSN: 2348-7968, http://www.ijiset.com, IF: 1.07, Vol. 1(6), Page No. 212-215, August 2014.

Abstract:

The ternary quadratic equation representing non-homogenous cone given by $3(x^2 + y^2) + 5xy + x + y + 1 = 15z^2$ is analyzed for its non-zero distinct integer points integer points on it. The different patterns of integer points satisfying the cone under consideration are obtained. A few interesting relations are between the solutions and special numbers patterns are presented.

13. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.A. Kavitha –** " Construction of D(5) – Dio Quadruples", International Research Journal of mathematics , Engineering & IT, Peer Reviewed, Impact Factor: 2.868, http://www.aarf.asia, ISSN: 2349-0322, Vol. 1(4), Page No. 16-20, August 2014.

Abstract:

This paper concerns with the study of constructing special D(5) Dio quadruples (a,b,c,d) such that the product of any two elements of the set their sum and five is a perfect square.

14. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi and Ms. J. Shanthi**- "A Method of Finding Solutions to the Cubic equation $x^3 + px^2 + qx + r = 0$", Scholars Journal of Engineering and Technology, Peer Reviewed, http://saspublisher.com/, ISSN: 2347-9523, Vol. 2(4c), Page No. 632-633, 2014.

Abstract:

A method of finding real and complex solutions to the cubic equation $x^3 + px^2 + qx + r = 0$ is illustrated through solving quartic equation.

15. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.S. Geetha – "**Integer points on the homogenous Cone $7x^2 - 2y^2 = 10z^2$ ", Scholars Journals of Engineering and Technology (SJET), Peer Reviewed, ISSN: 2321-435X, www.saspublisher.com, ICV: 4.21, Indexed, Vol. 2(4C), Page No: 645-649, 2014.

Abstract:

The ternary quadratic $7x^2 - 2y^2 = 10z^2$ representing a homogenous cone is analyzed for its non-zero distinct integral points. A few interesting properties among the solutions are polygonal numbers are presented. Given an integral solution, sox different triples of integers generating infinitely many integer solutions are exhibited.

16. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.T. Geetha=** "Observations on the Hyperbola $Y^2 = 72X^2 + 1$ ", Scholars Journal of Physics, Mathematics and Statistics, ISSN: 2393-8056, Peer Reviewed, http://www.saspublishers.com, Vol. 1(1), Page No: 1-3, 2014.

Abstract:

The binary quadratic equation $Y^2 = 72X^2 + 1$ ", is considered and a few interesting properties among the solutions are presented. Employing the

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

17.   **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.T. Geetha- "**On the Hyperbola $ax^2 - (a-1)y^2 = a, a > 1$ ", International Journal of Engineering Research- Online, Peer Reviewed, http://www.ijoer.in, Impact Factor: 3.601, ISSN:2321-7758, Vol. 2(6), Page No:144-146, 2014.

Abstract:

The binary quadratic equation representing hyperbola given $ax^2 - (a-1)y^2 = a, a > 1$ is analyzed for determining its non-zero distinct integer points. The recurrence relations satisfied by x and y are given. A few interesting relations among the solutions are presented.

18.   **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi and Ms. J. Shanthi-** "Lattice Points on the Homogeneous Cone$8(x^2 + y^2) - 15xy = 56z^2$", Scholars Journals of Physics, Mathematics and Statistics, ISSN: 2393-8064, http://saspjournals.com/, Peer Reviewed, Vol. 1(1), Page No. 29-32, 2014.

Abstract:

The ternary quadratic equation $8(x^2 + y^2) - 15xy = 56z^2$ representing a cone is analyzed for its non-zero distinct integer points on it. Employing the integer solutions, a few interesting relations between the solutions and special polygonal numbers are presented. Also knowing an integer solution, formulas for generating sequence of solutions are given.

19.   **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi, & Ms. A.** Kavitha – " On the Quintic Equation with three Unknowns $a(x^2 + y^2) - (2a - 1)xy = (k^2 + (4a - 1)s^2)^n z^5$", International Journal of Mathematics Trends and Technology- ISSN:2231-5373, http://www.ijmttjournal.org, IF.2.369, Peer Reviewed, Vol. 14(1), Page No. 55-58, Oct 2014.

Abstract:

We obtain infinitely many non-zero integer triples (x,y,z) satisfying the quintic equation $a(x^2 + y^2) - (2a - 1)xy = (k^2 + (4a - 1)s^2)^n z^5$. A few interesting relations between the solutions and special numbers are presented.

20. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi, Ms. R. Maheswari-** "On homogeneous Ternary Quadratic Diophantine Equation$4(x^2 + y^2) - 7xy = 16z^2$", Scholars Journal of Engineering and Technology, ISSN: 2321-435X, www.saspublisher.com, Vol. 2(5A), Page No. 676-680, 2014.

Abstract:

The ternary quadratic equation representing homogenous cone given by $4(x^2 + y^2) - 7xy = 16z^2$ is analyzed for its non-zero distinct integr points on it. Five different patterns of integer points satisfying the cone under consideration are obtained. A few properties among the solutions and polygonal numbers are presentd.

21. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi, Ms. D. Maheswari-** "Observations on the hyperbola$y^2 = 34x^2 + 1$", Bulletin of Mathematics and Statistic Research, Peer Reviewed, http://www.bomsr.com, ISSN: 2348-0580, Vol. 2(4), Page No. 414-416, 2014.

Abstract:

We obtain infinitely many non-zero integer solutions (x,y,z) satisfying the non-homogenous quintic equation with seven $y^2 = 34x^2 + 1$unknowns given by Various interesting relations between the solutions and special numbers, namely, polygonal numbers, stella numbers, Octahedral numbers, Jacobsthal numbers, Jacobsthal lucas numbers, Keynea numbers, Centered pyramidal numbers are presented.

22. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi, Ms. K.Lakshmi-** "Observation on the Non-Homogeneous Ternary Biquadratic Equation $x^2 - 2xy + 3y^2 =$

$3y^2 = (k^2 + 2s^2)z^4$", International Journal of advanced Research in Science, Engineering and Technology, ISSN: 2350-0328, www.ijarset.com, Vol. 1(5), Page No. 291-294, Dec 2014.

Abstract:

We obtain infinitely many non-zero integer solutions (x,y,z) satisfying the non-homogenous quintic equation with seven $y^2 = 34x^2 + 1$ unknowns given by Various interesting relations between the solutions and special numbers, namely, polygonal numbers, stella numbers, Octahedral numbers, Jacobsthal numbers, Jacobstha lucas numbers, Keynea numbers, Centered pyramidal numbers are presented.

23. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi, Ms. K.Lakshmi-** " On the Homogeneous cubic Equation with four unknowns $x^3 + x^2y + xy^2 + y^3 = 2z(k^2 + s^2)T^2$", Universe Emerging Technologies and Science , Peer Reviewed, ISSN: 2349-655X, IF:0.272, www.uniets.com, Vol. 1(IV), Page No. 1-4, Dec 2014.

Abstract:

We obtain infinitely many non-zero integer solutions (x,y,z, T) satisfying the Homogeneous cubic equation with four unknowns given by $x^3 + x^2y + xy^2 + y^3 = 2z(k^2 + s^2)T^2$ various interesting relations between the solutions and special numbers are presented.

24. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi, & Ms. A. Kavitha –** "On the non-homogeneous sextic equation with three unknowns $3(x^2 + y^2) - 5xy = 36z^6$", Universe of Emerging Technologies and Science, ISSN: 2349-655X, IF: 0.272, www.uniets.com, Vol.1(IV), Page No. 1-3, Dec 2014.

Abstract:

The sextic non-homogenous equation with three unknowns represented by the Diophantine equation $3(x^2 + y^2) - 5xy = 36z^6$ is nalyzed 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.

25. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi, & Ms. A. Kavitha –** "Special Dio-Quadruples with Property D(2)", The International Journal of Science & Technologies ", ISSN: 2321-919X, www.theijst.com, Vol. 2(5), May 2014.

Abstract:

This paper concerns with the study with the study of constructing a special Dio-quadruples (a,b,c,d) such that the product of any two elements of the set added with their sum and increased by two is a perfect square.

26. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi, & Ms. A. Kavitha** – "On the Ternary cubic equation $5(X^2 + Y^2_{-9XY} + X + Y + 1 = 23Z^3$", International Journal of Information Research and Review, ISSN: 2349-9141, Vol.1(10), Page No. 099-101, Oct 2014.

Abstract:

The ternary cubic Diophantine equation is analyzed for its infinitely many non-zero distinct integral solutions. A few interesting properties among the solutions are presented.

27. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.A. Kavitha –** "On the Integral points of the Bi-Quadratic Equation with Four Unknowns$(x - y)(x^2 + y^2) + (x^2 - xy + y^2)z - 12zw^2$", Scholars Journal of Physics,Mathematics and Statistics, Peer Reviewed, ISSN:2393-8064, http://saspjournals.com, Vol. 1(2), Page No.45-47, Sep-Nov 2014.

Abstract:

The Bi-quadratic Equation with four unknowns given by $(x - y)(x^2 + y^2) + (x^2 - xy + y^2)z - 12zw^2$ is analyzed for its patterns of non-zero distinct

integral solutions. A few interesting relations between the solutions and special polygonal numbers are exhibited.

28. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.A. Kavitha** – "On the Integral Solutions of the Binary Quadratic Equation $x^2 = 15y^2 - 11^t$ ", Scholars Journal of Physics, Mathematics and Statistics, Peer Reviewed, ISSN: 2393-8064, http://saspjournals.com, Vol. 2(2A), Page No.156-158, Sep-Nov 2014.

Abstract:

The binary quadratic Diophantine equation represented by $x^2 = 15y^2 - 11^t$ t odd is analyzed for its non- zero distinct integer solutions. Employing the lemma of Brahamagupta, Infinitely many integral solutions of the above Pell equation are obtained. The recurrence relations on the solutions are also presented. A Few interesting relations among the solutions are given. Further there exist no integer solutions when t is given.

29. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.A. Kavitha** – "In the Integral Solutins of the Binary Quadratic $x^2 = 4(k^2 + 1)y^2 + 4^t, k, t \geq 0$", Bulletin of Mathematics and Statics Research, ISSN: 2348-0580, Peer Reviewed, http://www.bomsr.com, Vol. 2(1), 2014.

Abstract:

The binary quadratic Diophantine equation represented by $x^2 = 4(k^2 + 1)y^2 + 4^t, k, t \geq 0$ is analyzed for its non-zero distinct integer solutions. Employing the lemma of Brahmagupta, infinitely many integral solutions of the above Pell equation are obtained. The recurrence relations on the solutions are also presented. A Few interesting relations among the solutions and special number patterns namely, polygonal numbers are also given. Further employing the integer solutions of the considered Pell equation, a special pattern of Pythagorean triangle is obtained.

30. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi-** "Integer Points on the Homogenous Cone $7x^2 - 2y^2 = 10z^2$", Scholars Journal of Engineering and Technology, Peer Reviewed, ISSN: 2347-9523, www.saspublisher.com, Vol. 2(4c), Page No.645-649, 2014.

Abstract:

The ternary quadratic $7x^2 - 2y^2 = 10z^2$", representing a homogenous cone is analyzed for its non-zero distinct integral points. A few interesting properties among the solutions and polygonal numbers are presented. Given an integrer solution, six different triples of integers generating infinitely many integer solutions are exhibited.

31. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi-** "Observations on the Hyperbola $y^2 = 72x^2 + 1$", Scholars Journal of Physics,Mathematics and Statistics, ISSN:2393-8064, http://saspjournals.com, Vol. 2(2A), Page No.156-158, Sep-Nov 2014.

Abstract:

The binary quadratic equation $y^2 = 72x^2 + 1$ is considered and a few interesting properties among the solutions are presented. Employing the integral solutions of the equations are under consideration, a special Pythagorean triangle is obtained.

32. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi-** "On the Hyperbola $ax^2 - (a-1)y^2 = a, a > 1,$ ", International Journal of Engineering Research, Peer Reviewed, Vol. 2(6), http://www.ijoer.in, 2014.

Abstract:

The binary quadratic equation representing hyperbola given $ax^2 - (a-1)y^2 = a, a > 1,$ is analyzed for determining its non-zero distinct integer points. The recurrence relations satisfied by X and Y are given. A few interesting relations among the solutions are presened.

33. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi and Ms. J. Shanthi**- "Integral Points on the Hyperbola $x^2 - 4xy + y^2 + 11x = 0$", Bulletin of Mathematics and Statistics Research, A Peer Reviewed International Research Journal, ISSN: 2348-0580, http://www.bomsr.com, Vol. 2(3), Page No. 327-330, 2014.

Abstract:

This paper concerns with the problem of obtaining infinitely many non-zero distinct integer solutions of the binary quadratic Diophantine equations representing hyperbola given by $x^2 - 4xy + y^2 + 11x = 0$ Employing the lemma of Brahmagupta, infinitely many integral solutions of the above equations are obtained. The recurrence relations on the solutions are presented. A Few interesting relations among the solutions are also given.

34. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms. K.Lakshmi – "** Integral Solution of the Bi-quadratic Equation with Five unknowns $(x + y)^2 + xy + (z + w)^2 - zw = (5a^2 + 3b^2)p^4$ ", International journal of Innovative Research in Technology, ISSN: 2349-6002, Peer Reviewed, http://www.ijirt.org/, Impact Factor: 2.1, Vol. 1(10), Page No: 47-52, 2014.

Abstract:

We obtain infinitely many non-zero integer quintuples (x,y,z,w,P) satisfying the biquadratic equation with five unknowns $(x + y)^2 + xy + (z + w)^2 - zw = (5a^2 + 3b^2)p^4$. **Different** approaches for finding the solution to the given equation are obtained.

35. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi and Ms. J. Shanthi**- " On the Hyperbola $(a + 1)x^2 - ay^2 = 3a + 3, a > 0$", Global Journal of Engineering Science and Researches, ISSN: 2348-8034, Peer Reviewed, http://www.gjesr.com/, Vol. 1(10), Page No. 1-3, December 2014.

Abstract:

The binary quadratic Diophantine equations offer an unlimited field for research because of their variety [1,2]. For an extensive review of various

problems one may refer[3-25]. This communications concerns with yet another interesting binary quadratic equation $(a + 1)x^2 - ay^2 = 3a + 3, a > 0$ representing hyperbola for determining its infinitely many non zero integral solutions. Also, a few interesting relations among the solutions are presented.

36. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.A. Kavitha-** "On the Non-homogenous sextic Equation with three unknowns $3(x^2 + y^2) - 5xy = 36z^2$ " Universe of Emerging Technologies and Science, ISSN: 2349-655X, Impact Factor: 0272, Peer Reviewed, http://www.uniets.com/, Vol. 1(7), Page No: 1-3, December 2014.

Abstract:

The sextic non-homogenous equation with their unknowns represented by the Diophantine equation $3(x^2 + y^2) - 5xy = 36z^2$ 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 Numbers are Exhibited.

37. **Dr. M.A. Gopalan, Ms. T.R. Usharani, and Dr. S. Vidhyalakshmi-** "Integral Solution of Homogeneous Bi-quadratic equation with five unknowns $2(x^2 - y^2)(2(x^2 + y^2) - 3xy) = 11(z^2 - w^2)T^2$", International Journal of Information Research and Review, Peer Reviewed, IF: 1.125, Vol.2(1), Page No.284-288, Jan 2015.

Abstract:

We obtain infinitely many non-zero integer quadruples satisfying the Bi-quadratic equation with four unknowns. Various interesting properties among the values of X, Y, Z and W are presented.

38. **Dr. M.A. Gopalan, Ms. T.R. Usharani, and Dr. S. Vidhyalakshmi-** "Integral Solutions of the Binary Equation $x^2 - 3xy + y^2 + 5x = 0$", Bulletin of Mathematics and Statistic Research, ISSN: 2348-0580, http://www.bomsr.com, Peer Reviewed, Vol. 3(1), Page No. 8-12, 2015.

Abstract:

The binary quadratic equation $x^2 - 3xy + y^2 + 5x = 0$ represents a hyperbola. In this paper we obtain a sequence of its integral solutions and present a few interesting relations among them.

39. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi, Ms. K. Lakshmi-** " Integral Solution of the non-homogenous Quintic Equation with seven Unknowns $xy(x^2 + y^2) - zw(z^2 + w^2) = 4\sigma^2\,XYT^3$", International Journal in Physical & Applied Sciences, ISSN: 2394-5710, http://www.ijmr.net.in, Vol. 2(1), Page No.8-15, Jan 2015.

Abstract:

We obtain infinitely many non-zero integer solutions (x,y,z,w,X,Y,T) satisfying the non-homogenous quintic equation with seven unknowns given by $xy(x^2 + y^2) - zw(z^2 + w^2) = 4\sigma^2\,XYT^3$ Various interesting relations between the solutions and special numbers, namely, polygonal numbers, stella numbers, Octahedral numbers, Jacobsthal numbers, Jacobsthal lucas numbers, Keynea numbers, Centered pyramidal numbers are presented.

40. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi, Ms. K.Lakshmi-** "Integer Solution of the non-homogeneous Bi-quadratic Equation with six unknowns $x^4 - y^4 - 8zw = 2T(p^2 + 1)$", International Journal of Information Research and Review, ISSN: Vol. 2(1), Page No.294-300, Jan 2015.

Abstract:

We obtain infinitely many non-zero integer sextuples (x,y,z,w,P,T) satisfying the biquadratic equation with six unknowns $x^4 - y^4 - 8zw =$

$2T(p^2 + 1)$. Various interesting properties among values x,y,z,w,P and t are presented.

41. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.A. Kavitha-** "Integral Solutions of the Non-homogenous Heptic Equation with five Unknowns $x^3 - y^3 - (x^2 + y^2) + z^3 - w^3 = 2 + 15p^7$", International Journal of Recent Scientific Research, Peer Reviewed, Impact Factor: 5.114, ICV:5.72, http://www.recentscientific.com/welcome-ijrsr, Vol. 6(2), Page No., Feb 2015.

Abstract:

The non-homogenous Diophantine equation of degree seven with five unknowns represented by $x^3 - y^3 - (x^2 + y^2) + z^3 - w^3 = 2 + 15p^7$ is analyzed for its non-zero distinct integer solutions . A few interesting relations between the solutions and special numbers namely polygonal numbers, Pyramidal numbers, centered Polygonal numbers are exhibited.

42. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi and Ms. T.Geetha –** "In the Negative Pell Equation $y^2 = 105x^2 - 5$", International Journal of Applied Research, Peer Reviewed, ISSN: 2249-55X, IF:2.1652, http://www.theglobaljournals.com, Vol.1(3), Page No. 09-10, 2015.

Abstract:

The negative Pell Equation represented by the binary quadratic equation $y^2 = 105x^2 - 5$ is analyzed for its non-zero distinct integer solutions of the equations. A few interesting relations among the solutions are presented. Employing the solutions of the equations under consideration, The integer solutions for a few choices of hyoerbola and parabola are obtained.

43. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi and Ms. T.Geetha-** "Observations on Negative Pellian $y^2 = 86x^2 - 5$", International Journal of Applied Research, Peer Reviewed, ISSN: 2249-55X, IF:2.1652, http://www.theglobaljournals.com, Vol.1(3), Page No. 86-87, 2015.

Abstract:

The binary quadratic equation $y^2 = 86x^2 - 5$ is considered and a few interesting properties among the solutions are presented. Employing the integral solutions of the equation under consideration a special Pythagorean triangle is formed.

44. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi and Ms. J. Shanthi-** "Observations on the Biquadratic Equation with five Unknowns $2(x - y)(x^3 + y^3) + x^4 - y^4 = 2(z^2 - w^2)p^2$ ", Universe of Emerging Technologies and science, IF: 0.272, ISSN: 2349-635X, Vol. 2(1), Page No. 1-4, Jan 2015.

Abstract:

We obtain infinitely many non-zero integer solutions (x,y,z,w,p) satisfying the bi-quadratic equation with five unknowns $2(x - y)(x^3 + y^3) + x^4 - y^4 = 2(z^2 - w^2)p^2$ given by Various interesting relations between the solutions and special numbers, namely, polygonal numbers, stella numbers, Octahedral numbers, Jacobsthal numbers, Jacobstha lucas numbers, Keynea numbers, Centerd pyramidal numbers are exhibited.

45. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi and Ms. J. Shanthi-** **"**Observations on the Hyperbola $y^2 = 35X^2 + 1$ ", International Journal of Applied Research, ISSN: 2394-7500, Peer reviewed, www.allresearchjournal.com, Impact Factor:3.4, Vol. 1(4), Page No"108-110, 2015.

Abstract:

The binary quadratic equation $y^2 = 35X^2 + 1$ is analyzed for its non-zero distinct integer solutions. A few interesting relations among the solutions are presented. Some interesting relations connecting the solutions and

polygonal numbers are presented. Employing the integral solutions of the equation under consideration, a special Pythagorean triangle is obtained.

46.　　**Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi and Ms. J. Shanthi-** "On the Negative Pell Equation $y^2 = 15x^2 - 6$ ", Scholars Journal of Physics, Mathematics and Statistics, ISSN:233-8056, http://saspjournals.com/sjpms, Peer Reviewed, Vol. 2(2A), Page No: 123-128, Mar-May 2015.

Abstract:

The negative Pell equation represented by the binary quadratic equation $y^2 = 15x^2 - 6$ is analyzed for its non-zero distinct integer solutions. A few interesting relations among the solutions are presented. Employing the solutions of the equation under consideration, the integer solutions for a few choices of hyperbola and parabola are obtained.

47.　　**Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi and Ms. J. Shanthi-** "On the Ternary Quadratic Diophantine Equation $6z^2 = 6x^2 - 5y^2$ ", International Journal of Engineering Technology and Management Research, **ISSN - 2454-1907,** http://www.ijetmr.com/, Page No: 1-9, 2015.

Abstract:

The ternary homogeneous quadratic equation given by $6z^2 = 6x^2 - 5y^2$ representing a cone is analyzed for its non-zero distinct integer solutions. A few interesting relations between the solutions the solutions and special polygonal and pyramidal numbers are presented. Also, given a solutions, formulas for generating a sequence of solutions based on the given solutions are presented.

48.　　**Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi and Ms. J. Shanthi-** "Observations on the Quadratic Equation with six unknowns $(x^3 - y^3)z = (w^2 - p^2)R^2$ ", Global Journal of Pure and Applied Mathematics,

Abstract:

We present different patterns of non-zero distinct integer solutions to the homogeneous quadratic 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.

49. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi and Ms. J. Shanthi-** "On the Cubic Equation with Four unknowns $x^3 + 4z^3 = y^3 + 4w^3 + 6(x - y)^3$ ", International Journal of Mathematics Trends and Technology, http://www.ijmttjournla.org, ISSN: 2231-5373, Vol. 20(1), Page No:75-83, April 2015.

Abstract:

The Diophantine equation offer an unlimited field for research due to their variety [1-2]. In particular, one may refer [3-14] for cubic equation with three unknowns. In [15-19] cubic equation with four unknowns are studied for its non-trivial integral solutions. This communication concerns with the problem of obtaining non-zer integral solution of cubic with four variables is given by$x^3 + 4z^3 = y^3 + 4w^3 + 6(x - y)^3$. A few properties among the solutions and special numbers are presented.

50. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi and Ms. J. Shanthi-** "Gaussian Integer Solutions for the Elliptic Parabaloid $x^2 + y^2 = 10z$ ", International Journal of Scientific Engineering and Applied Science, ISSN: 2395-3470, Peer Reviewed, http://ijseas.com/, Vol. 1(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 analyzed for its

Gaussian integer solutions. Also, knowing a solution, general formulas generating sequences of Gaussian integer solutions for the above equation are presented.

51. **Dr. M.A. Gopalan, Dr. S. Vidhyalakshmi and Ms. D. Maheswari-** "Observations on the Quintic Equation with five unknowns $x^4 - y^4 = 37(z^2 - w^2)p^3$ International Journal of applied Journal, ISSN: 2394-7500, Impact Factor: 3.4, www.allresearchjornal.com, Vol. 1(3), Page No. 78-81, 2015.

Abstract:

The quintic Equation with five unknowns $x^4 - y^4 = 37(z^2 - w^2)p^3$ is analyzed for infinitely many non-zero distinct integral solutions. A Few interesting properties among the values of x,y,z,w,p and special numbers namely, polygonal, pyramidal, Centered pyramidal Star Stella octangular and Jacobsthal numbers are presented.

52. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms. K.Lakshmi –"** On the Non-Homogeneous Sextic Equation $x^4 + 2(x^2 - w)x^2y^2 + y^4 = z^4$ International Journal of Multidisciplinary Research and Development, www.allsubjectjournal.com, Peer Reviewed, Indexed, Impact Factor: 3.762, ISSN:2349-4182, Vol. 2(3), Page No:786-787, 2015.

Abstract:

We obtain infinitely many non-zero integer quadruples (x,y,z,w) satisfying the non-homogeneous sextic equation with four unknowns $x^4 + 2(x^2 - w)x^2y^2 + y^4 = z^4$ various interesting properties among the values of x,y,z and w are presented.

53. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.A. Kavitha –** "Integral Solutions of the heptic equation with five unknowns $(x^2 - y^2)[c^2(x^2 + y^2) - 2(c^2 - 1)xy] = (2c^2 + 3)[X^2 - Y^2]Z^5$ " International Journal of Engineering and Applied Sciences, ISSN:2394-3661, Peer Reviewed,

Abstract:

The non-homogeneous Diophantine equation of degree seven with five variables represented by $(x^2 - y^2)[c^2(x^2 + y^2) - 2(c^2 - 1)xy] = (2c^2 + 3)[X^2 - Y^2]Z^5$ is analyzed for its non-zero distinct integer solutions. A few interesting relation between the solutions and special numbers namely polygonal numbers, Pyramidal Numbers, centered polygonal numbers are exhibited.

54. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms. K.Lakshmi – "**On the Homogeneous Quintic Equation with seven unknowns $xy(x^2 + y^2) + zw(z^2 + w^2) = (X^2 + Y^2)T^3$ ", International Journal Innovative Science and Modern Engineering, ISSN: 2319-6386, http://www.ijisme.org/, Indexed, Peer Reviewed, Impact factor: 1.071, Vol. 3(6), Page No: 12-15, May 2015.

Abstract:

We obtain infinitely many non-zero integer quadruples (x,y,z,w, X, Y, T) satisfying the non-homogeneous quintic equation with seven unknowns given by $xy(x^2 + y^2) + zw(z^2 + w^2) = (X^2 + Y^2)T^3$ various interesting relations between the solutions and special numbers, namely polygonal numbers, pyramidal numbers, stella octangular numbers, octahedral numbers, Jacobsthal numbers, Jacobsthal lucas number, keynea numbers, Centered pyramidal numbers are presented.

55. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.A. Kavitha- "**Integral Solutions of the Heptic Equation with five unknowns $x^3 - y^3 + 2(z^3 - w^3) = 3(z - w) + 6(k^2 + 2s^2)T^7$", International Journal of Applied Research, Peer Reviewed, Impact Factor:3.4, www.allresearchjournal.com, Vol. 1(3), Page No.82-85, 2015.

Abstract:

The non-homogenous Diophantine equation of degree seven with five unknowns represented by $x^3 - y^3 + 2(z^3 - w^3) = 3(z - w) + 6(k^2 + 2s^2)T^7$, is analyzed for its non-zero distinct integer solutions . A few interesting relations between the solutions and special numbers namely polygonal numbers, Pyramidal numbers, centered Polygonal numbers are exhibited.

56.   **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.K. Lakshmi-** "On the homogeneous Bi-quadratic equation with four unknowns$(x + y + z)xyz = w^2 + 2z^2$ ", International Journal of Applied Research, ISSN: 2394-7500, www.allresearchjournal.com, Impact Factor: 5.2, Peer Reviewed, Vol. 1(4), Page No. 251-253, 2015.

Abstract:

The binary quadratic equation $(x + y + z)xyz = w^2 + 2z^2$ is studies for its non-trivial integral solutions. The recurrence relations satisfied bythe solutions x and y are given. A few interesting properties among the solutions are presented.

57.   **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.S. Mallika-** "Formation of sequences of Irrational Gaussian Diophantine Quadruples with the Property D(4) and D(1)", International Journal of Engineering Mathematics and Computer Sciences, ISSN: 2321-5143, http://innovativejournal.in/ijemcs/index.php/ijemcs, Vol. 4(3), Page No: 1-7, 2015.

Abstract:

The paper concerns with the study of constructing irrational Gaussian Diophantine quadruples (c1, c2, c3, c4) such that the product of any two members of the set added with either 1 or 4 is a perfect square.

58.   **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.S. Mallika-** "On Sequences of Irrational Gaussian Diophantine Quadruples", International Journal of Mathematical Sciences & Applications, ISSN: 2230-9888, www.journalshub.com, Peer Reviewed, Vol. 4(1), Page No:128-135, Jan-June 2014.

Abstract:

This paper concerns with the study of the constructing irrational Gaussian Diophantine quadruples (c_1,c_2,c_3,c_4) such that the product of any two members of the set added with either 1 or 4 is a perfect square.

59.   **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.S. Mallika-** "Non-Homogenous Cubic Equation with Three Unknowns $3(x^2 + y^2) - 5xy + 2(x + y) + 4 = 27z^2$ ", International Journal of Engineering Science & Research Technology, ISSN: 2277-9655, http://www.ijesrt.com, IF: 3.785, Peer Reviewed, Vol. 3(12), Page No: 138-141, Dec 2014.

Abstract:

The non-homogenous cubic equation with three unknowns represented by $3(x^2 + y^2) - 5xy + 2(x + y) + 4 = 27z^2$ is analyzed for finding its non-zero distinct integral solutions. Three different methods have been presentedfor determining the integral solutions of the non-homogeneous cubic equation under consideration. Employing the integral solutions of the above equation, a few interesting relations between special numbers are exhibited.

60.   **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.D. Maheswari-** "Observations of the Bi-quadratic Equation with five unknowns $(X - Y)(x^3 + Y^3) = 39(W^2 - Z^2)P^2$ ", International Journal of Multidisciplinary Research and Development, Peer Reviewed, Indexed, Impact Factor: 3.762, www.allsubjectjournal.com, ISSN: 2349-4182, Vol. 2(5), Page No: 83-86, May 2015.

Abstract:

The Bi-quadratic Diophantine Equation with five unknowns $(X - Y)(x^3 + Y^3) = 39(W^2 - Z^2)P^2$ is analyzed for its infinitely many non-zero distinct integral solutions. A few interesting properties among the values of x,y,z,w,p and special numbers namely, polygonal, Centered pyramidal, Jacobsthal numbers and four dimensional figurate numbers are presented.

61. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.D. Maheswari-** " On Ternary Quadratic Diophantine Equation $2(x^2 + y^2) - 3xy = 43z^2$ ", JP Journal of Mathematical Science, Peer Reviewed, ISSN: 2248-9851, http://www.iphsci.com, Vol. 13(1), Page No: 9-23, 2015.

Abstract:

The ternary quadratic equation $2(x^2 + y^2) - 3xy = 43z^2$ representing cone is analyzed for its distinct integer points on it. Employing the integer solutions, a few relations between the solutions and special polygonal numbers are presented.

62. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.D. Maheswari-** " On homogenous Ternary quadratic Diophantine Equation $a(x^2 + y^2) - bxy = 4a^2, b \neq 2a \ a(x^2 + y^2) - bxy = 4az^2, b \neq 2a$ ", International Journal of Applied Research, ISSN: 2394-7500, Peer Reviewed, IF: 5.2, http://www.allresearchjournal.com/, Vol. 1(6), Page No: 88-91, 2015.

Abstract:

The ternary quadratic homogenous equation representing homogenous cone given by $a(x^2 + y^2) - bxy = 4a^2, b \neq 2a \ a(x^2 + y^2) - bxy = 4az^2, b \neq 2a$ is analyzed for its non-zero distinct integer points on it. Six different patterns of integer point satisfying the cone consideration are obtained. A few interesting properties among the solutions and polygonal numbers are presented.

63. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.T. Geetha-** "On ternary quadratic Diophantine equation$2x^2 - 7y^2 = 25z^2$", International Journal of Applied Science, ISSN: 2394-7500, www.allresearchjournal.com, Peer Reviewed, Impact Factor:3.4, Vol. 1(4), Page No: 111-114, 2015.

Abstract:

The ternary quadratic Diophantine equation representing cone given by $2x^2 - 7y^2 = 25z^2$ is analyzed for its non-zero distinct integer points. A few interesting relations between the solutions and special figurate numbers are obtained.

64. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.T. Geetha-** "On the Ternary quadratic Diophantine equation $5(x^2 + y^2) - 2xy = 20z^2$ ", International Journal of Multidisciplinary Research and Development, ISSN: 2349-4182, Impact Factor: 3.762, www.allsubjectjournal.com, Peer Reviewed, Indexed, Vol. 2(4), Page No:211-214, April 2015.

Abstract:

The ternary homogeneous quadratic equation give by $5(x^2 + y^2) - 2xy = 20z^2$ representing a cone is analyzed for its non-zero distinct integer solutions. A few interesting relations between the solutions and special polygonal and pyramidal numbers are presented. Also, given a solution, a formula for generating a sequence of solutions based on the given solutions is presented.

65. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.T. Geetha-** "On the ternary quadratic Diophantine Equation $x^2 + y^2 = z^2 - 4n$ ", Universe of Emerging and Science, ISSN: 2349-655X, Impact Factor: 0.272, Peer Reviewed, Vol. II (IV), Page No: 1-3, April 2015.

Abstract:

The ternary quadratic $x^2 + y^2 = z^2 - 4n$ representing a homogenous cone is analyzed for its non-zero distinct integral points. A few interesting properties among the solutions are presented.

66. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.T.R. Usharani-** "On the negative pell equation $y^2 = 35x^2 - 19$ ", International Journal of Research and Review, ISSN: 2349-9788, www.gkpublication.in, Peer reviewed, Indexed, Vol. 2(4), Page No: 183-188, April 2015.

Abstract:

The negative pell equation represented by the binary quadratic equation $y^2 = 35x^2 - 19$ is analyzed for its non-zero distinct integer solutions. A few interesting relations among the solutions are presented. Employing the solutions of the equation under consideration, the integer solutions for a few choices of hyperbola and parabola are obtained.

67. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.T.R. Usharani-** "Observation on the Hyperbola $y^2 = 110x^2 + 1$ ", International Journal of Multidisciplinary Research and Development, ISSN:2349-4182, www.allsubjectjournal.com, Peer Reviewed, Impact Factor: 3.672, Vol. 2(3), Page No: 237-239, 2015.

Abstract:

The binary quadratic equation $y^2 = 110x^2 + 1$ is considered and a few properties among the solutions are presented. Employing the integral solutions of the quadratic equation under consideration, a special Pythagorean triangle is obtained.

68. **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.T.R. Usharani-** "Observations on the hyperbola $y^2 = 90x^2 + 1$", International Journal of Multidisciplinary Research and Development, ISSN:2349-4182, www.allsubjectjournal.com, Peer Reviewed, Impact Factor: 3.672, Vol. 2(3), Page No: 350-352, 2015.

Abstract:

The binary quadratic equation $y^2 = 90x^2 + 1$ is considered and a few properties among the solutions are presented. Employing the integral

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

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69.   **Dr.M.A. Gopalan, Dr.S. Vidhyalakshmi and Ms.A. Kavitha-** "On the Ternary Quadratic Diophantine Equation $3(x^2 + y^2) - 2xy = 4z^{2}$", International Journal of Engineering Sciences & Management, Peer Reviewed, Impact Factor: 3.1145, ISSN:2277-5528, http://www.ijesmjournal.com/, Vol. 5(2), Page No: 11-18, April –June 2015.

Abstract:

The ternary homogeneous quadratic equation given by $3(x^2 + y^2) - 2xy = 4z^2$ representing a cone is analyzed for its non-zero distinct integer solutions. A few interesting relations between the solutions and special polygonal and pyramidal numbers are presented. Also, given a solution, formula for generating a sequence of solutions based on the given solutions is presented.

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1. **Ms. C. Vinodhini, Mr. R. Ravikumar, and Mr. S. Sudhakar -** "Characterization of nif Geni Present in Nitrogen Fixing Bacteria Isolated from Root Nodules", Research Journal of Biological Sciences, Peer reviewed, ISSN: 1815-8846 (Print), http://medwelljournals.com/, Page No: 3-9, April- June 2014.

Abstract:

Biological nitrogen fixation represents the major source of nitrogen in agricultural soils including those on arid regions. The major nitrogen-fixing systems are symbiotic systems which play a significant role in improving the fertility and productivity of low nitrogen soils. In the presentstudy, Rhizobium isolated from root nodules of leguminous plants were characterized for the presence of Nif genes. Three separate experiments were conducted to study the effect of Rhizobium on the growth of vigno mungo. First experiment was conducted using seeds coated with slurry by paper sheet experiment. He second was done using Arachis hypogeaue using slurry soil from Vigno mungo and third was conducted using Citrus auratifolia which was amended with slurry soil from Arachis hypogeaue. In all these three Experiments the growth of plants as seen in leaves, roots and shoot length seem to be significantly high when compared to unamended soil. Genomic DNA was isolated form rhizobium and it was amplified by PCR to analyze the presence of the Nif gene.

2. **Ms. C. Vinothini, Mr. R. Ravikumar, and Mr. S. Sudhakar** - "Biodegradation of petroleum and Crude oil by pseudomonas puita an bacillus cereus", International Journal of Current Microbiology and applied science, ISSN: 2319-7709, http://www.ijcmas.com, Vol. 4(1), Page No. 318-329, 2015.

Abstract:

Microbial degradation of petroleum hydrocarbons is one of the major practices in natural decontamination process. In the present study crude oil degradation were analyzed using isolated bacterial strains. Bacterial strains were isolated from the crude oil contaminated soil sample. The selected two bacterial strains were named as OBI and DB2. These organisms were identified based on the cultural, morphology and biochemical characteristics and results of DBI and DB2. The crude oil degradation of isolated bacterial strains was analyzed based on the growth of crude oil containing medium. The growth ability was measured at 1st and 7th days after inoculation. The crude oil on the growth of Vignamungo by pot culture experiments were analyzed the germinating and growth ability in the different experimental groups' showed that Pseudomonas putida have more efficient than bacillus cereus.

Department of Physics

1. **Ms. N. Sharmila-** "Crystal Structure of 4-amino-a-(4-methyl-benzy) pyridinium bromide", Act Cryst –E IUCr Journals, journals.iucr.org/e, Open Access, Vol. E70, Page No. o7293-o1294, Nov 2014.

   Abstract:

   The titled molecular salt,$C_{13}H_{15}N_2$. Br^- , crystallized with two independent ion pairs (A and B) in the asymmetric unit. In the captions, the planes of the pyridine and benzene rings are inclined to one another by 79.32(8) and 82.30 (10)^0 in Ion pairs A and B, respectively. In the crystal, he anions and captions are connected by the N-H… Br hydrogen bonds, forming a centrosymmetric tetramer –like unit enclosing and R^4_8 (16) ring motif. These units are linked via C-H …. Br hydrogen bonds forming a three dimensional network.

2. **S. Santhakumari-** " Comparative Study of Specific Acoustic Impedance and Transport Properties of Sulfa Compounds using Ultrasonic Velocity", International Journal of Pharmaceutical Sciences and Research, ISSN: 2320-5148, IF: 3.5, ICV: 5.1, Peer reviewed, Vol. 5(9), Page No. 3775-3778, 2014.

   Abstract:

   Measurement of ultrasonic velocity in non-aqueous solution 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 he physical and chemical properties of a solution such as density, viscosity and ultrasonic velocity. The ultrasonic velocity data combining with density and viscosity provides the standard means for determining the acoustical parameters and internal pressure, free volume. The specific acoustic impedance in solutions can be used as a tool to estimate the strength of intermolecular attraction. Internal pressure(πi) and free volume (Vf) are

the transport properties, which are useful in understanding the intra and inter molecular interactions. Internal pressure gives an idea of the solubility characteristics. Sulphanile amide is a parent compound and also the hypotent antibiotic which is important in urinary tract infections and meningococcal meningitis prophylaxes. Another sample Sulphadizine is the sulphonamide potent antibiotic and it is a competitive inhibitors of the bacterial enzyme dihydropterate synthesis.

3. **S. Santhakumari- "**Internal Pressure, Free volume and Adiabatic Compressibility Analysis of Amides in Non-aqueous Medium", Indo American Journal of Pharmaceutical Sciences, ISSN:2349-7750, Peer Reviewed, Impact Factor: 1.35, http://www.iajps.com/, Vol. 2(2), Page No: 587-592, 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 sultja-drug which is important in urinary tract infections and meningococcal meningitis proifilaxes. Benzensulphonamide is one of the sultja-drug used in the treatment of gastrointestinal, duodenyl ulcer, neurological disorders are analyzed for the solution of the sample, informamide. The passage of ultrasonic waves through solution and liquids disturb the equilibrium between solute and solvent molecules. In the present work non-aqueous solutions of both have been prepared with different interaction occurring in the concentration and the experiments were carried out from a low temperature of 5° C to a high temperature of 55° C. The various interaction occurring in the solutions are interpreted

in terms of non-ion and ion –solvent interaction. Internal pressure free volume is the thermo dynamical parameter to explain about the wealth of information about the state of liquids. The free volume is generalized aspect of the idea that each molecule is enclosed by its neighbors in a cell. The structural change of molecule in the solution takes place due to the existence of electrostatic field between the interacting molecules. The arrangements of the molecules results in the effect of adiabatic compressibility. The analysis of the study reveals the structural changes occurring in the solutions.

4. **Ms. S. Sujatha** – "An Analysis of Specific Acoustic Impedance, Apparent Molal Volume and Transport Properties of Non-Aqueous Solutions of Peptides, International Journal of Science and Research, ISSN: 2319-7064, Index Copernicus Value for 2013: 6.14, IF: 4.438, www.ijsr.net, Page No. 236-238, Jan 2015.

Abstract:

Ultrasonic investigations in non-aqueous solutions of peptides provide useful information in understanding the Physico-chemical properties of the interacting components. Peptides and amino acids are used as probe molecule to understand the complex nature protein. It is recognized that he study of the behavior of model compound of proteins like amino acids and peptides as solutions help in understanding the factors governing the thermodynamic stability of the native structure of proteins. The analysis of ultrasonic velocity, transport properties and other related parameters were successfully employed at different temperature and concentrations to understand the structural changes occurring in the solutions.

Department of Social Work

1. **Dr. K. Kavitha Maheswari-** "Study on Self Concept among Rural Girl Students", International Research Journal Science, ISSN:2319-3565, Peer Reviewed, http://www.isca.in/, Indexed, Vol. 3(7), Page No. 29-35, July 2014.

Abstract:

The self concept is the individual's perception of her abilities and her status and roles in the outer world. There is a casual relationship between the self concept and the rate of learning and achievement. It is the one of the important determinants of achievement motivation. The ideal self is important for higher aspiration and high future performance. The students self concept will decide what goal suit him and how she should strive for their realization and it will also determine her level of aspiration. This descriptive study is an attempt to know perceived level of self concept among the rural girl students in Pennagaram block of Dharmapuri District. There were 370 respondents selected by using stratified proportionate random sampling technique constituted the sample. The researcher used questionnaire pertaining to personal data along with self concept questionnaire developed by Dr. Rajkumar Saraswat. Major findings of this study revealed that more than half of the respondents had high self concept. As per the study results it is understood that no socio demographic variables has influence over the respondents self concept except the course of study.

2. **Dr. K. Kavitha Maheswari-**"Study on Quality of Work Life Among the Employees of Cement Industry", Journal of International academic Research for Multidisciplinary", ISSN: 2320-5083, www.jiarm.com, Impact Factor: 1.625, Peer Reviewed, Vol. 2(9), Oct 2014.

Abstract:

The descriptive study is an attempt to know about the quality of work life among the employees of Dalmia cements, Ariyalur, Tamil Nadu.

Quality of work life means "the degrees to which members of a work organization are able to satisfy important personal needs through their experience in the organizations. The total size of the universe consists of 400 employees of the production unit. The researcher selected 120 employees as sample for the study. The researcher used questionnaire developed by, Santhosh Dhar, Upinder Dhar, Rishu Roy(2005). It was found that more than half of the respondents perceived high level of quality of work and its dimensions like proactive, human relations, learning organization and work life balance. Through the analysis it was revealed that there is no significant difference and qualification differences with regard to their overall quality of life and its dimensions.

3. **Dr. K. Kavitha Maheswari-** "Rural Girl Student's Attitude Towards Education", Journal of Business Management & Social Science Research, ISSN:2319-5614, www.borjournals.com, Vol. 3(10), Page No. 66-72, Oct 2014.

Abstract:

Individual's attitude towards education is essential for their educational aspiration. It will determine their study involvement, hard work and perseverance in turn results in successful academic life. There are factors influencing adolescents attitude toward education, these are peer attitudes, Parental attitudes, grades which indicate academic success or failure the relevance or practical value of various courses, attitudes toward teachers, administrators, academic and disciplinary policies, success in extracurricular activities and degree of social acceptance among classmate. This descriptive study is an attempt to know he rural girl students attitude toward education. The universe of the study comprises of all girl student those who are studying twelfth standard in government higher secondary schools in the academic year June 2009-April 2010 in Pennagaram block of Dharamapuri district,

Tamil Nadu. By using stratified proportionate random sampling techniques there were totally 370 respondents selected from the universe of 926 students. The study was conducted with 12th standard students of Government Higher Secondary Schools revealed that more than half (61.9%) of the respondents had low attitude towards education and the rest of the 38.1 per cent of the respondents had high attitude towards education.

4. **Mrs. N. Sherrin Sophia**- "Caregiver Burden In Families of Patients with Schizophrenia", Indian Journal of Applied Research, ISSN: 2249-555X, Impact Factor: 2.1652, Peer Reviewed, http://www.theglobaljournals.com/, Indexed, IC Value : 6.44, Vol. 4(2), Page No. 78-81, Dec 2014.

Abstract:

    Schizophrenia is a severe form of mental illness that affects about 7 per 1,000 of the adult population. It is estimated that globally about 29 million people have Schizophrenia. The burden of care giving is a complex multifaceted construct which may defy a uniformly agreed simple definition. Caregiver burden refers to a psychological state that ensures from the combination of physical work and emotional and social pressure involved in caring. This study aims to examine the burden of family members of patients with Schizophrenia. Seventy nine family members of patients with Schizophrenia who were attending Sowmanasya Hospital outpatients service in tiruchirappalli, were Caregiver Burden Scale by Thara, Padmavati, Kumar & Srinivasan - 1998. The study revealed that caregivers show a very high degree of burden. These results suggest a close monitoring of caregivers mental health and he provision of family intervention and psycho-social support.

5. **Ms. N.Sherrin Sophia-** "Quality of Life HIV infected People at Perambalure", Indian Journal of Applied Research, ISSN: 2249-555X, Impact Factor: 2.1652, Peer Reviewed, http://www.theglobaljournals.com/, Indexed, IC Value: 6.44, Vol. 4(12), Page No. 82-84, Dec 2014.

Abstract:

Many of the HIV Patients struggle with numerous social problems such as stigma, poverty, depression also from mental and social health point of view and cause numerous problems in useful activities and interests of the patients. This present study aims to analyze the quality of life of HIV infected persons at perambalur. WHOQOL-HIV BREF was adopted to collect the data from 44 respondents. The study reveals that quality of Life was low among the respondents.

6. **Mrs. K. Shenbagam-** "A Study on Self-esteem Among Engineering Students", Indian Journal of Applied Research, ISSN: 2249-555X, Impact Factor: 2.1652, Peer Reviewed, http://www.theglobaljournals.com/, Indexed, IC Value: 6.44, Vol. 4(2), Page No. 85-87, Page No. 63-65, Dec 2014.

Abstract:

Engineering is a design- oriented subject. Design involves problem solving. If you become a good problem solver, every branch of engineering offers you job opportunity. As the field of engineering incorporates new technologies, the appropriate scope of undergraduate education in engineering continues to grow. It appears unlikely that course breadth can widened to accommodate this growth, at every institution, increasing the length of the undergraduate engineering curriculum. Therefore, with increases in breadth must come sacrifices in depth of coverage for many subjects. The term self-esteem is used to describe a person overall sense of self-worth or personal value. Self-esteem is often seen as a personality trait, which means that it tends to be stable and enduring. Self-esteem

can involve a variety of beliefs about the self, such as the appraisal of one's own appearance, beliefs emotions and behaviors.

7. **Mrs. K. Shenbagam-** "A study on Effectiveness of Grievance Handling Mechanism at Swatik Apparels, Erode", Indian Journal of Applied Research, ISSN: 2249-555X, Impact Factor: 2.1652, Peer Reviewed, http://www.theglobaljournals.com/, Indexed, IC Value: 6.44, Vol. 4(2), Page No. 85-87, Dec 2014.

Abstract:

A grievance is any discontent or feeling of unfairness and in the workplace, it should be pertaining to work. A grievance is more deep-seated than complaint. Complaints are expressions of grievances, but grievance is deep on the foundation of employer-employee relationship and employment-related. The researcher adopted descriptive research design. Data was collected from 50 employees through random sampling design. The primary data for this study was collected with help of the questionnaire. The secondary data was collected from the books and journals for reference. The major findings will be discussed in the full paper.

8. **Mrs. K. Vijaya** – "A Study on Psychosocial Problem Faced by Hiv/aids Patients", Indian Journal of Applied Research, ISSN: 2249-555X, Impact Factor: 2.1652, Peer Reviewed, http://www.theglobaljournals.com/, Indexed, IC Value: 6.44, Vol. 4(2), Page No. 48-50, Dec 2014.

Abstract:

AIDS is Acquired Immune Deficiency Syndrome. It is a serious illness that slowly attacks and destroys the body's immune system making it vulnerable to infections and cancers which normally do not affect healthy people. The exact limits of incubation period is the time limit between infection with HIV, and the development of an AIDS defining condition. Based on the available records, it can be a period between five months

the time of HIV infection of 15 years and even more. This is because HIV virus causing AIDS was discovered about 15 years ago. One may in a better position to provide more accurate time period after passing through say, another decade of fighting the HIV virus. In the opinion of Frumkin and Leonard a median incubation period, longer than 10 years would indicate a decline in progression of AIDS. There are several reasons why progression of disease could decline in the near future. Treatment improvements in antiretroviral therapy, and prevention of opportunistic infection could influence could influence the progression of disease. Modifications of behaviors that decrease the chances of encountering unidentified factors that might accelerate that activity of HIV, improved medical care and the evolution of HIV to less pathogenic strains are also available. At present is difficult to detect an increasing median incubation period to AIDS, although it is possible that with time, any or all of these different forces may contribute to substantial increase in the time of infection to clinically apparent disease. The researcher adopted descriptive research design. Data was collected from 40 responds through systematic random sampling. The primary data for this study was collected with help of the interview schedule. The secondary data was collected from the books and journals for reference. The major findings will be discussed in the full paper.

9. **Mrs. E. Deepa**- "A study on Job stress among married Nurse", Indian Journal of Applied Research, ISSN: 2249-555X, Impact Factor: 2.1652, Peer Reviewed, http://www.theglobaljournals.com/, Indexed, IC Value: 6.44, Vol. 4(2), Page No. 552-554, Dec 2014.

Abstract:

Nurses work in an environment that is constantly changing to provide the best care for patients. Because they will actually spend more face-to face time with a patient than doctors, nurses must be particularly skilled

at interacting with patients, putting them at ease, and assisting them in their recovery. It is often said that physicians cure, and nurses care. The researcher has adopted descriptive design in this study to describe and analyses the stress level of the married nurses in the hospital setting. The data for this study has been collected through primary random sampling for collecting data from the respondents. The data for this study has been collected from the library and computer. The major findings will be discussed in the full paper.

10. **Dr. K. Kavitha Maheswari-** "A Study on Human Resource Development Climate Prevalent among the Sales Segment of Pharmaceutical Companies", Indian Journal of Applied Research, ISSN: 2249-555X, Impact Factor: 2.1652, Peer Reviewed, http://www.theglobaljournals.com/, Indexed, IC Value: 6.44, Vol. 4(2), Page No. 48-50, Dec 2014.

Abstract:

Human resource development is concerned with the provision of learning and development opportunities that support the achievement of business strategies and improvement of organizational, team and individual performance. Climate, this is an overall feeling that is conveyed by the physical layout, the way employees interact and the way members of the organization conduct themselves with outsiders. It is provided by an organization.HRD Climate is an integral part of organizational Climate. The study titled "Study on Human Resource Development Climate prevalent among the sales segment of pharmaceutical companies" in Erode was conducted with the primary objective of assessing the Human Resource Development climate among different pharmaceutical companies. For this study the researchers used descriptive research design. The universe of the study constituted of 750 medical and sales representatives from various pharmaceutical companies. Among them 100 representatives were selected by using

purposive sampling. The researcher used questionnaire developed by C.N daftuar, were used for collecting data from the respondent. The researcher by means of statistical tools has analyzed and the data comes out with following finding: Among the employees more than half of them perceived higher level of Human Resource Development Climate. HRD climate plays a very important role in the success of any organizations because directly or indirectly it affects the performance of the employees. If the HRD climate is good then the employees will contribute their maximum for the achievement of the organizational objectives.

11. **Dr. K. Kavitha Maheswari-** "Marital Life Satisfaction among Alcoholics", Indian Journal of Applied Research, ISSN: 2249-555X, Impact Factor: 2.1652, Peer Reviewed, http://www.theglobaljournals.com/, Indexed, IC Value: 6.44, Vol. 4(2), Page No. 48-50, Dec 2014.

Abstract:

The World Health Organization (WHO) has defined alcoholics as excessive drinkers whose dependence alcohol has attained such a degree that they show noticeable disturbance or an interference with their mental and bodily health, their interpersonal relations and their smooth social and economics functioning, or who show the signs of such development. This descriptive study is aimed to assess the marital satisfaction among the alcoholic in Tiruchirappalli district, Tamil Nadu. The universe of the present study consisted of married alcoholic under de-addiction and detoxification treatment at SOCSEAD de-addiction center during the month of June 2014. The total number of registered in patients admitted in the SOCSEAD during the period of study from June 2014 to July 2014 was 90. All the patients were included in the study by using census method. The tools selected in accordance with the aim and objective of the study. If consisted of self prepared Socio-demographic interview schedule along with marital satisfaction scale by funk, J.L &

Rogger, R,D (2007). The Major findings of the study are: A little more than ½ (51.1%) of the respondents had low level of marital satisfaction. Remaining 48.9% of the respondents had high level of marital satisfaction, the respondents span of alcoholism and alcohol consumption frequency has significant influence on the marital life satisfaction.

12. **Dr. K.Kavitha Maheswari –** "A Study on Factors affecting Quality of work Life Among the Employees of Cement Industry", Indian Journal of Applied Research", ISSN: 2249-555X, Impact Factor: 2.1652, Peer Reviewed, http://www.theglobaljournals.com/, Indexed, IC Value: 6.44, Vol. 4(2), Page No. 17-19, Dec 2014.

Abstract:

This descriptive study is an attempt to know about the quality of work life among the employees of Dalmia cements, ariyalur, Tamil Nadu. Quality of work life means "the degree to which members of a work organization are able to satisfy important personal need through their experience in the organization. The total size of the universe consists of 400 employees of the production unit. The researcher selects 120 employees as sample for the study. The researcher used standard questionnaire developed by santhish dhar, Upinder Dhar, rishu Roy(2005). It was found that more than half of the respondents perceived high level of quality of work life and its dimensions like proactive, human relations, learning organizations and work life balance. Through the analysis it was revealed that there is no significant influence of monthly income, experience, designation and tenure of employment on overall quality of work life among the respondents.

2015

AREAS FOR RESEARCH

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✠ **Data mining**
✠ **Bio Informatics**
✠ **Image Processing and Pattern Recognition**
✠ **Computer Applications using Discrete Mathematical Tools**

COMMERCE

✠ **Marketing**
✠ **Inventory Management**
✠ **Finance Management**
✠ **Effective Management & Administration**

MICROBIOLOGY

✠ **Agricultural Microbiology**
✠ **Mycology**
✠ **Environmental Microbiology**

BIOCHEMISTRY

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✠ **Immunology Endocrinology Enzymes / Cancer Biology**
✠ **Techniques , Molecular Biology**
✠ **Clinical Biochemistry , Food & Nutrition**

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