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SYSTEMATIC MAINTENANCE OF BLOCK CHAIN ENABLED INTELLIGENT HEALTHCARE MONITORING SCHEME USING INTERNET OF THINGS

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Fall Detection in Elderly Care System Based on Group of Pictures

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Fall detection is a serious problem in elder people. Constant inspection is important for this fall identification. Currently, numerous methods associated with fall detection are a significant area of research for safety purposes and for the healthcare industries. The objective of this paper is to identify elderly falls. The proposed method introduces keyframe based fall detection in elderly care system. Experiments were conducted on University of Rzeszow (UR) Fall Detection dataset, Fall Detection Dataset and MultiCam dataset. It is substantially proved that the proposed method achieves higher accuracy rate of 99%, 98.15% and 99% for UR Fall detection dataset, Fall Detection Dataset and MultiCam dataset, respectively. The performance of the proposed method is compared with other methods and proved to have higher accuracy rate than those methods.

Keywords: Optical flow; group of pictures; foreground segmentation.

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FABRICATION OF ZNS THIN FILMS BY NEBULIZER SPRAY PYROLYSIS TECHNIQUE FOR SOLAR CELL APPLICATIONS

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ABSTRACT

In the present work, Zinc Sulphide was prepared by nebulizer spray pyrolysis technique on glass substrates at varying deposition temperatures. For Zinc Sulphide thin films the temperature was optimized to be 350°C. The structural, morphological, optical and electrical properties of the as deposited ZnS thin films were studied for solar cell application and the results are discussed.

Key words: Spray Pyrolysis, ZnS, XRD, SEM, EDAX, AFM, UV-VIS.

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Anti-diabetic, Anti-oxidant, Fluorescence and Filter Characterizations of Bis Glycine Lithium Bromide Monohydrate (BGLBMH) Macro and Nano-scaled Crystals

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ABSTRACT

Introduction: Crystals are meant for versatile applications and utility in all fields and mainly in electronic and biofields.

Aim: Our aim, the present investigation is focused on Bis Glycine Lithium Bromide Monohydrate (BGLBMH crystals), its synthesis and the various characterizations.

Methodology: BGLBMH Macro crystals are put in order by slow evaporation solution growth method and nanocrystal by milling method. The Single-crystal XRD, Powder XRD analysis, filter, anti-diabetic and anti-oxidant (AD and AO) studies were performed here.

Result: The single-crystal XRD study reveals the macro-crystalline lattice parameters with a, b, c in Å as 7.5397, 17.4174, 8.2727 and β as 118.14o as the system is monoclinic with a space group of P21/c. The macro and nano scales are analyzed for fluorescence spectral activity. The crystals speciality is THG and shows the SHG NLO value of 1.25 times that of KDP because of the strongest H bonds and the bandgap is 3.08 eV which is 403 nm as emission FL value for macro scaling and 397 nm for nano scaling with a bandgap of 3.12 eV. The nano outline of BGLBMH crystals is 250 nm and 34 nm correspondingly for the initial and final one.

Conclusion: The BGLBMH have good scope for anti-diabetic by the Glycine, bromide presence and have increased in inhibition as concentration increases and the IC value as 37.5 for macro and in a nano form, it is 30.4. Also, the AD - nm variations will have good efficiency when the size of the sample decreases from 250 to 34 nm. The BGLBMH macro and nanocrystals are used in filter applications also as the data are represented and concluded with the inferences and reported with the utilities for electronic and pharma utilities.

Key Words: AD, AO, Crystals, Fluorescence, Influx, Nano

INTRODUCTION

Complexes of glycine have recently attracted attraction due to their potential applications in ferroelectricity,[1-3] dielectric properties[4] and nonlinear optical properties.[5-9] Nonlinear optical materials[10-14] are very important for the current researchers due to their importance for producing the second and third harmonic generations.[15-17] Single-crystal X-ray beam structure arrangement examination uncovers that the hydrated type of glycine lithium bromide takes shape in the monoclinic framework, with spacegroup $P2_1/c$. Fluorescence, filter utility and AD and AO work for BGLBMH macro and nano scalings.[18-22].

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Growth, characterizations, and the structural elucidation of diethyl-2-(3-oxoiso-1,3-dihydrobenzofuran-1-ylidene)malonate crystalline specimen for dielectric and electronic filters, thermal, optical, mechanical, and biomedical applications using conventional experimental and theoretical practices

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ABSTRACT

The single crystals of diethyl-2-(3-oxoiso-1,3-dihydrobenzofuran-1-ylidene) malonate (D23DYM) were grown successfully and efficiently by the standard slow evaporation method. The lattice cell parameters by XRD analysis also confirmed that the crystal system is Triclinic with the space group of Pī. The FTIR spectrum portrays the presence of major and active functional groups in D23DYM. The thermal studies explained the two major weight losses between 107 and 153 °C and 153 and 800 °C for D23DYM have been observed. It is very clear that the hardness profile of D23DYM increases with increase in load which

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RESEARCH ARTICLE

Screening and Evaluation of Biodegradability of Polythene by Soil Bacteria

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ABSTRACT

Increase in plastics has resulted in the degradation of environment and other life forms because of its non-degradable property and persistent presence in the soil. The rise in plastics may lead to various changes in the regulation and recycling of waste resources. In order to avoid such problems, plastics are now degraded biologically with the help of microbes. The present study deals with the isolation of such potent bacteria, isolated from various soils that are capable of degrading plastics. Five different strains of bacteria such as ***Streptococcus, Staphylococcus, Clostridium, Proteus*** and ***Pseudomonas*** species were isolated from various soil sources and identified based on their morphological characters and biochemical test results. The biodegradability of 10 micron plastics by these bacterial strains were determined for 15 days and it was found that ***Pseudomonas sp.*** was able to reduce the plastics by 70% whereas ***Clostridium sp***. did not degrade the plastics. Biodegradation of plastics by bacteria can be made most efficient by altering the factors that govern the process. It promises a reduction in plastic pollution in the future. Hence it is recommended to perform the enzymatic test of plastic samples, and production of isolated enzyme in large scale for degradation of plastic material.

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J Mater Sci: Mater Electron

Synthesis, growth, XRD, NLO, CHNSO, structure by theoretical approach, dielectric, absorbance, photoconductivity and bio studies of 4-(4-Acetyl-5-Methyl-1H-1, 2, 3-Triazol-1-yl) Benzonitrile crystals for optical, opto-electronic, and photonics utilities

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ABSTRACT

4-(4-Acetyl-5-Methyl-1H-1, 2, 3-Triazol-1-yl) Benzonitrile—AMHTYB crystal is effectively synthesized and grown successfully by slow-evaporation technique. The grown sample is monoclinic in nature which is identified by single-crystal XRD data analysis and its chemical formula is identified to be $C_{12}H_{10}N_4O$. From the NLO study, the titled crystal is found to be 1.24 times than that of the crystal of KDP for NLO-SHG efficiency and is good for the optical applications. The AMHTYB crystal is subjected to dielectric and photoconductivity study, the synthesized crystal is a -ve photoconductive type of material and is of good material for electronic industry based on its effect on dielectrics. The absorbance cut-off is identified by UV–visible spectrum as 291 nm and the energy gap as 4.27 eV by Tauc's plot for photonic effectiveness; the elemental calculations by CHNSO and by theoretical manner and the structural revelation by

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Synthesis, growth, XRD, NLO, CHNSO, structure by theoretical approach, dielectric, absorbance, photoconductivity and bio studies of 4-(4-Acetyl-5-Methyl-1H-1, 2, 3-Triazol-1-yl) Benzonitrile crystals for optical, opto-electronic, and photonics utilities

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ABSTRACT

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Anti-diabetic, Anti-oxidant, Fluorescence and Filter Characterizations of Bis Glycine Lithium Bromide Monohydrate (BGLBMH) Macro and Nano-scaled Crystals

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ABSTRACT

Introduction: Crystals are meant for versatile applications and utility in all fields and mainly in electronic and biofields.

Aim: Our aim, the present investigation is focused on Bis Glycine Lithium Bromide Monohydrate (BGLBMH crystals), its synthesis and the various characterizations.

Methodology: BGLBMH Macro crystals are put in order by slow evaporation solution growth method and nanocrystal by milling method. The Single-crystal XRD, Powder XRD analysis, filter, anti-diabetic and anti-oxidant (AD and AO) studies were performed here.

Result: The single-crystal XRD study reveals the macro-crystalline lattice parameters with a, b, c in Å as 7.5397, 17.4174, 8.2727 and β as 118.14o as the system is monoclinic with a space group of P21/c. The macro and nano scales are analyzed for fluorescence spectral activity. The crystals speciality is THG and shows the SHG NLO value of 1.25 times that of KDP because of the strongest H bonds and the bandgap is 3.08 eV which is 403 nm as emission FL value for macro scaling and 397 nm for nano scaling with a bandgap of 3.12 eV. The nano outline of BGLBMH crystals is 250 nm and 34 nm correspondingly for the initial and final one.

Conclusion: The BGLBMH have good scope for anti-diabetic by the Glycine, bromide presence and have increased in inhibition as concentration increases and the IC value as 37.5 for macro and in a nano form, it is 30.4. Also, the AD - nm variations will have good efficiency when the size of the sample decreases from 250 to 34 nm. The BGLBMH macro and nanocrystals are used in filter applications also as the data are represented and concluded with the inferences and reported with the utilities for electronic and pharma utilities.

Key Words: AD, AO, Crystals, Fluorescence, Influx, Nano

INTRODUCTION

Complexes of glycine have recently attracted attraction due to their potential applications in ferroelectricity,[1-3] dielectric properties[4] and nonlinear optical properties.[5-9] Nonlinear optical materials[10-14] are very important for the current researchers due to their importance for producing the second and third harmonic generations.[15-17] Single-crystal X-ray beam structure arrangement examination uncovers that the hydrated type of glycine lithium bromide takes shape in the monoclinic framework, with spacegroup $P2_1/c$. Fluorescence, filter utility and AD and AO work for BGLBMH macro and nano scalings.[18-22].

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Anti-diabetic, Anti-oxidant, Fluorescence and Filter Characterizations of Bis Glycine Lithium Bromide Monohydrate (BGLBMH) Macro and Nano-scaled Crystals

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Key Words: AD, AO, Crystals, Fluorescence, Influx, Nano

INTRODUCTION

Complexes of glycine have recently attracted attraction due to their potential applications in ferroelectricity,[1-3] dielectric properties[4] and nonlinear optical properties.[5-9] Nonlinear optical materials[10-14] are very important for the current researchers due to their importance for producing the second and third harmonic generations.[15-17] Single-crystal X-ray beam structure arrangement examination uncovers that the hydrated type of glycine lithium bromide takes shape in the monoclinic framework, with spacegroup $P2_1/c$. Fluorescence, filter utility and AD and AO work for BGLBMH macro and nano scalings.[18-22].

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Synthesis of metal oxide nanoparticles doped poly 3 anisidine nanocomposites with enhanced electrocatalytic activity for methanol oxidation

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ABSTRACT

We have explored the nanocomposites as a potential catalyst material in acid medium for the electro-oxidation of methanol. Electrochemical impedance studies have shown that the R_{ct} value of (Poly-3-Anisidine) P3A/GCE is lower than the modified P3A-metal oxide doped electrodes. In the case of doped metal oxides, we claim, this validates the slow electron transfer mechanism. Compared to P3A-MnO_2, P3A-Fe_2O_3 catalysts, the as-synthesized P3A-Cr_2O_3 displays an expanded electrochemically active surface region, substantially enhanced catalytic activity and improved stability for methanol oxidation reaction (MOR).

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1. Introduction

Direct Alcohol fuel cells (DAFCs) are one of the most promising energy conversion devices, due to their environmental friendliness and high energy conversion efficiency. Among various DAFCs, Direct methanol fuel cells have attracted increasing interest because of their potential applications in portable electronic devices[1–3]. Electrocatalytic applications which utilize conducting polymers is expected to offer a potential significant increase in efficiency[4]. Synthetic polymers were considered as insulators before the development of the idea of doping concept [5]. After this, the concept has been entirely changed. Intrinsically conducting polymers could conduct electricity of the order near to that of metal oxide nanoparticles by doping process[6]. Conjugated polymers like Polyanisidine, Polyaniline, Polypyrrole, Polyindole, Polythiophenes have numerous potential applications in electrical and electronics field[7]. Polyaniline and its derivatives (ortho methoxyaniline, meta methoxyaniline, para methoxyaniline) have much attention due to their easy synthesis methods and also offer good yield at low cost[8]. Very few electrocatalytic applications of poly-3-anisidine (P3A) (poly meta methoxyaniline) have been found in literature. Metal oxide nanoparticles doped polymer modified electrodes have been recently recognized to have potential applications in electrocatalysis.

In the present work we report the synthesis of novel poly-3-anisidine (P3A) using potassiumperdisulphate ($K_2S_2O_8$) as oxidant. The synthesized metal oxides and nanocomposites are exhibit excellent optical and electrical property. The phase of the synthesized sample with crystallites size was measured from X-ray diffraction (XRD) analysis. This study focuses on the synthesis of P3A nanocomposites using Cr_2O_3, MnO_2 and Fe_2O_3 nanoparticles for the applications of electro catalytic oxidation of methanol.

2. Experimental details

2.1. Synthesis of metal oxide nanoparticles

For synthesis of Cr_2O_3 nanoparticle, $K_2Cr_2O_7$ (2.5 g), starch (2.5 g), deionized water (100 mL) was uniformly mixed together

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Symmetric Prime and Symmetric Semiprime Ideals in Symmetric Semirgroups

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Abstract: In this note we introduce the notion of Symmetric Prime and Symmetric Semiprime ideals in Symmetric Semiroups and we define completely symmetric prime and completely symmetric semiprime ideals also we derive some results based on the above concepts.
Keywords: Symmetric semigroup (SSG)-Ideals, SPr- Ideals, SSPr- Ideals, Product Compo of SSG, CSPr –Ideals, CSSPr-Ideals, C-System, PCC-System, Symmetric Complement Group.

1. Introduction

Prime Ideals play very important role in semigroups and are rooted from prime numbers of the integers.Especially ,it is cornerstone on commutative rings and topological semigroups.In [7],[8],[9] introduced the concept of Symmetric Semirings and Symmetric Semigroups, and symmetric semigroup ideals.Here, we introduce the notion of Symmetric Prime and Symmetric Semiprime ideals in Symmetric Semiroups and we define completely symmetric prime and completely symmetric semiprime ideals also we derive some results based on the above concepts.

2.Preliminaries

We define a new operation in composition mapping on S_3, that is called as plus circle compo, its satisfying the conditions in [8].

Definition 2.1 *(S_3,o)* Symmetric Semigroup

A non empty set S in S_3 together with a binary operation 'o' is called (S_3,o) symmetric Semigroup if 'o' is associative in (S_3,o) that is $eo(p_1op_2) = (eop_1)op_2$ *for some* $e,p_1,p_2 \epsilon (S_3,o)$.
Similarly$(S_3, +^o)$ Symmetric semigroup also satisfies $e+^0(p_1+^0p_2) = (e+^0p_1)+^0p_2$ *for some* $e,p_1,p_2 \epsilon (S_3,+^0)$.

3.Main Results

Definition 3.1 *(S_3,o)& $(S_3, +^o)$ –Commutative SSG*
If $p_1 o p_2 - p_2 op_1$,& if $p_1 +^o p_2 - p_2 +^o p_1$,we say that p_1 and $p_2$commute with each other ; if $p_1 o p_2 - p_2 op_1$ & if $p_1 +^o p_2 - p_2 +^o p_1$ for all elements $p_1, p_2 \in S$,we call S is commutative SSG.

Example 3.2

(i) Let S be a SSG of $(S_3, +^o)$. The elements of $S = \{ e, p_1, p_2 \}$. Then we have

A New Set of Soft Generalized*β −Locally Closed Sets in Soft Topological Spaces

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Abstract : We present a new set of soft generalized* β −locally closed set ($here\ after\ mentioned\ as, g^*\beta^s - lc$), $soft\ g^*\beta - lc^*$set ($here\ after\ mentioned\ as, g^*\beta^s - lc^*$), $soft\ g^*\beta - lc^{**}$ ($here\ after\ mentioned\ as, g^*\beta^s - lc^{**}$) sets in STS. Further to the above, the relation between the other notions connected with the forms of $soft - lc$ sets and some properties are studied.

Keyword:$g^*\beta^s$ −closed set, $g^*\beta^s - lc$ set, $g^*\beta^s - lc^*$set,$g^*\beta^s - lc^{**}$set.

AMS Subject Classification (2010): 54A40,54C05,54C08

1. Introduction

Initially the concept of generalized closed sets were introduced by Levine [3] in topological spaces in 1970. Molodtsov [4] pioneered the study of soft set theory as a new mathematical tool and confronted the fundamental results of the soft sets in 1996. Soft set theory has become an important application and it has become a significant tool for dealing with uncertainties integral with the problems in many scientific fields. Soft topological spaces(STS) are defined over an initial universe with a fixed set of parameters and was introduced by MunazzaNaz& Muhammad Shabir [5]. Also in 2015 Kannan [2] introduced soft generalized-locally closed sets in STS. The authors [6,7] introduced the concept of generalized star β-closed sets in TS and soft $g^*\beta$-closed sets in STS.We define $g^*\beta^s - lc$ set, $g^*\beta^s - lc^*$set, $g^*\beta^s - lc^{**}$sets in STS. Also we have introduced the new concept of $g^*\beta^s lc - continuous\ and\ g^*\beta^s lc - irresolute$ functions and we have discussed some properties. The straightforward proof of the theorems is omitted. For the concepts of STS we refer [1,2,6,7,9].

2. Soft $g^*\beta$ −Locally Closed sets

Definition: 2.1 A soft subset $(\mathcal{F}, E)$ of a STS $(\mathcal{U}, \tau, E)$is said to be a soft-$g^*\beta$ −locally closed set (here after called as,$g^*\beta^s - lc$ set) if $(\mathcal{F}, E) = (Q, E) \cap (S, E)$ where (Q, E) is $g^*\beta^s$ −open (briefly,$g^*\beta^s O$) and (S, E) is $g^*\beta^s$ −closed set (briefly,$g^*\beta^s C$).
It is denoted by $g^*\beta^s - lc(\mathcal{U}, \tau, E)$.

Definition: 2.2 A soft subset $(\mathcal{F}, E)$ of a STS $(\mathcal{U}, \tau, E)$is said to be a $g^*\beta^s - lc^*$set if there exists a $g^*\beta^s O$ set (Q, E) and soft closed (briefly,$\mathcal{C}^s$) set(S, E) of $\mathcal{U}$ such that $(\mathcal{F}, E) = (Q, E) \cap (S, E)$.
It is denoted by $g^*\beta^s - lc^*(\mathcal{U}, \tau, E)$.

Symmetric Prime and Symmetric Semiprime Ideals in Symmetric Semirgroups

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Research Article

Vertex Magic Labeling On V_4 for Cartesian product of two cycles

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Abstract: Let V_4 be an abelian group under multiplication. Let $g: E(G) \to V_4$. Then the vertex magic labeling on V_4 is induced as $g^*: V(G) \to V_4$ such that $g^*(v) = \prod_u g(uv)$ where the product is taken over all edges uv of G incident at v is constant. A graph is said to be V_4 - magic if it admits a vertex magic labeling on V_4. In this paper, we prove that $C_m \times C_n, m \geq 3, n \geq 3$, Generalized fish graph, Double cone graph and four Leaf Clover graph are all V_4 -magic graphs.

Keyword: Vertex magic labeling on V_4, V_4 -magic graph, Four Leaf Clover Graph.

AMS subject classification (2010): 05C78

1. Introduction

For a non-trivial abelian group V_4 under multiplication a graph G is said to be V_4 -magic graph if there exist a labeling g of the edges of G with non-zero elements of V_4 such that the vertex labeling g^* defined as $g^*(v) = \prod_u g(uv)$ taken over all edges uv incident at v is a constant.

Let $V_4 = \{i, -i, 1, -1\}$ we have proved that the Cartesian product of two graphs,Generalized fish graph, Happy graph,Four Leaf Clover Graph are all
V_4 -magic graphs.

2. Basic Definition

Definition: 2.1Cartesian Product of Two graphs

Cartesian product of two graphs G, H is a new graph GH with the vertex set $V \times V$ and two vertices are adjacent in the new graph if and only if either $u = v$and u' is adjacent to v' in H or $u' = v'$ and u is adjacent to v in G.

Definition: 2.2Generalized Fish Graph

The generalized fish graph is defined as the one point union of any even cycle with C_3. It is denoted by $GF(2n, 3)$. It has $2n + 2$ vertices and $2n + 3$ edges.

Theorem: 2.3 Cartesian product of two cycles $C_m \times C_n$ is a V_4-magic graph with $m, n \geq 3$.

Proof:

Let $V(C_m \times C_n) = \{v_j: 1 \leq j \leq m\} \cup \{v_j' : 1 \leq j \leq m\} \cup \{v_j'' : 1 \leq j \leq m\} \cup \{v_j''' : 1 \leq j \leq m\}$

$E(C_m \times C_n) = \{v_j v_{j+1} : 1 \leq j \leq m\} \cup \{v_j' v_{j+1}' : 1 \leq j \leq m\} \cup \{v_j'' v_{j+1}'' : 1 \leq j \leq m\} \cup \{v_j''' v_{j+1}''' : 1 \leq j \leq m\} \cup \{v_j v_j' : 1 \leq j \leq m\} \cup \{v_j' v_j'' : 1 \leq j \leq m\} \cup \{v_j'' v_j''' : 1 \leq j \leq m\} \cup \{v_j''' v_j : 1 \leq j \leq m\}$

$[v_{m+1} = v_1;\ v_{m+1}' = v_1';\ v_{m+1}'' = v_1'';\ v_{m+1}''' = v_1''';\ v_0 = v_m;\ v_0' = v_m';\ v_0'' = v_m'';\ v_0''' = v_m''']$

Case 1: Let $m, n \geq 3$ and both are even.

Let us define $g: E(C_m \times C_n) \to \{i, -i, -1\}$ as

$g(v_j v_{j+1}) = i when j is odd\ ;\ 1 \leq j \leq m$

$g(v_j v_{j+1}) = -i when j is even\ ;\ 1 \leq j \leq m$

$g(v_j' v_{j+1}') = i when j is odd\ ;\ 1 \leq j \leq m$

$g(v_j' v_{j+1}') = -i when j is even\ ;\ 1 \leq j \leq m$

$g(v_j'' v_{j+1}'') = i when j is odd\ ;\ 1 \leq j \leq m$

$g(v_j'' v_{j+1}'') = -i when j is even\ ;\ 1 \leq j \leq m$

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V_4-Vertex Magic Labeling for Hypercubes

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Abstract

This article deals with the investigation of V_4-vertex magic labeling on Hypercube, Double edge connected path union of hypercubes, Double edge connected open star of hypercubes and Double edge connected open star of path union of hypercubes.

Keyword: $DEC\ P_mQ_n, DECS(m,Q_n), DEC\ S(m,P_n,Q_n), Q_n$.

AMS subject classification (2010): 05C78

1. Introduction

For a non-trivial abelian group V_4-under multiplication a graph G is said to be V_4- magic graph if there exists a labeling g of the edges of G with non-zero elements of V_4-such that the vertex labeling g^* defined as $g^*(v) = \prod_u g(uv)$ taken over all edges uv incident at v is a constant.

Let V_4={i,-i,1,-1}

This article deals with the investigation of V_4- vertex magic label on Hypercube, Path union of hypercube, Union of Overlapping open star of Hypercube, Overlapping open star of path union of Hypercube.

2. Preliminaries

Definition 2.1: A graph obtained by replacing each vertex of $K_{1,n}$ except the apex vertex by the graph $G_1, G_2, \dots, G_n$ is known as an Open star of graphs which is denoted by $S(G_1, G_2, \dots, G_n)$. If we replace each vertex of $K_{1,n}$ except the apex vertex by a graph G.

(i.e) $G_1 = G_2 = \cdots = G_n$

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FUZZY *s*-DOMINATING ENERGY

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Abstract

The energy of a graph is defined as the sum of the absolute values of eigenvalues of its adjacency matrix. The absolute value of the largest eigenvalue is called the spectral radius of the graph. This article introduces *s*-dominating energy in simple connected crisp graphs and extends the same to connected fuzzy graphs. Also *s*-dominating energy of a complete fuzzy graph is determined and bounds on fuzzy *s*-dominating energy are acquired.

1. Introduction

Eigenvalues and Eigen vectors of matrices have huge real life applications. Steiner domination number in crisp graphs has been studied from [7]. Also domination in fuzzy graphs was studied from [2]. The close relation between eigenvalues of dominating matrix and dominating energy are expounded in [3], [4] and [5]. The different types of energies of fuzzy graphs are explicated in [1] and [8]. These studies lead us to introduce Steiner dominating energy (i.e.) *s*-dominating energy in crisp graphs and is then extended to fuzzy graphs.

2010 Mathematics Subject Classification: 05C72, 05C69, 51E10.

Keywords: fuzzy *s*-dominating matrix, fuzzy *s*-dominating eigen values, fuzzy *s*-dominating spectrum.

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A STUDY OF WOMEN EMPLOYMENT IN SERVICE SECTOR IN RADHAPURAM TALUK OF TIRUNELVELI DISTRICT

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ABSTRACT

Participation of women in economic activity in India is widespread from times immemorial. Women constitute almost half of any country's human endowment. They play a vital role in social growth. An employed woman, plays a dual role, that of a housewife, a financial contributor to the family, many a time, the sole earner. The present study is empirically focusing on the factors governing the employment pattern of women labour, their status and satisfaction, their motivational forces and the socio-economic conditions of the women labour in the service sector in Radhapuram Taluk of Tirunelveli district.

A sample of 140 working women is chosen for the study by adopting a simple random sampling method. Out of these 140 working women, 12 types of women working in the service sector such as teacher, doctor, nurse, telecommunication, housekeeping, bank staff, hotel and restaurant, travel agent, salesgirls, beauty parlour, tailoring and xerox and DTP have been taken for the study. For analysing the primary data and the secondary data, mean, standard deviation, 't' test, chi-square test, and Garrett's ranking statistical tools have used. The meaning of 't' was measured to determine the significant difference in women's satisfaction in the service sector based on family. The estimated value of 't' was found to be 0.5184, lower than the table value of 1.97, which is essential at the level of 0.05. The null hypothesis is thus acknowledged, and it is assumed that there is no substantial difference in the satisfaction of women in the service sector and the form of family.

Keywords: economic growth, economic necessity, human resources, motivational forces, entrepreneurship.

A STUDY OF WOMEN EMPLOYMENT IN PRIVATE SECTOR BANKS IN TIRUNELVELI DISTRICT

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ABSTRACT

In any economy, the banking sector is critical to agriculture, small businesses, and various industries. This paper examines the work satisfaction of female bank employees in Tamilnadu's Tirunelveli District. The critical goals of the research areas are listed below.

1. *To study the socio-economic status of women private bank employees.*
2. *To examine the employment status of women in private sector banks.*
3. *To understand the reasons for joining the banking sector*
4. *To find the occupational stress and health problems faced by women employees*
5. *To examine job satisfaction of women in private sector banks.*

The study is based on primary and secondary sources. The primary data relates to January 2021. The questionnaire was distributed through online Google forms to 150 women private bank employees in lockdown due to Covid 19. Secondary facts have collected from books, journals, newspapers, the internet and bulletins. Percentage, standard deviation, Garret ranking method, multiple regression analysis, chi-square test, and probability analysis used. Hence education, length of service and monthly salary are the predictor variables of job satisfaction in private sector banks. Therefore, this study covers a wide range of independent variables that significantly influence the job satisfaction of female employees working in private banks through an investigation. Besides, the private sector banks must regularly conduct work-life balance and family counselling programmes for their female employees. Also, the private sector banks should encourage discussions with their female employees through social media to understand and meet their work-life balance aspirations and needs.

Keywords: Banking sector, backbone, economic development, job satisfaction, work-life balance.

TREND AND GROWTH STATUS OF MICROFINANCE IN INDIA - A REVIEW

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Abstract:

Every continent and country have recognised and adopted Micro Finance as an anti-poverty programme. As the Micro Finance movement spreads around the world, more and more groups are offering loans to the needy. Introducing self-employment generation schemes that assist people earn money and become more efficient at earning their own living through microfinance programmes allows small loans to be made to the lowest of the poor. In addition to lending, microfinance programmes offer services such as training and development. Using Self Help Groups (SHGs) and Joint Liability Group (JLG) with banks, Micro Finance is a cost-effective and complementary method of rural credit disbursement that promotes the quick and timely availability of institutional credit in an economical and effective manner and in small funds without an excessive legal and procedural framework. Progress in MFI outreach and extension in India has been impressive. Microfinance and MFI outreach in India are examined in this research in light of this setting. It is found that the trend coefficient was found to be statistically significant for MFI loan disbursed by India. It includes an average MFI Loan Disbursed and MFI disbursed amount increased by 18.51 percent and by 13.92 percent respectively per annum during the study period. Thus, the growth rates are 13.97 percent and 10.85 percent for MFI Loan Disbursed and MFI Disbursed Amount, respectively. In the case of in Bank Loan Disbursed to SHGs, the trend coefficient was found to be statistically significant. It indicates, on average, the quantity in the Bank Loan Disbursed to SHGs that had increased by 6.82 percent annum over the study period. The growth rate is found to be 6.38 percent for India Bank Loan Disbursed to SHGs. R^2 indicates a variation explained by the time variable nearly from 61 percent to 79 percent on the dependent variable. The Indian government and the Reserve Bank of India must take the necessary steps to

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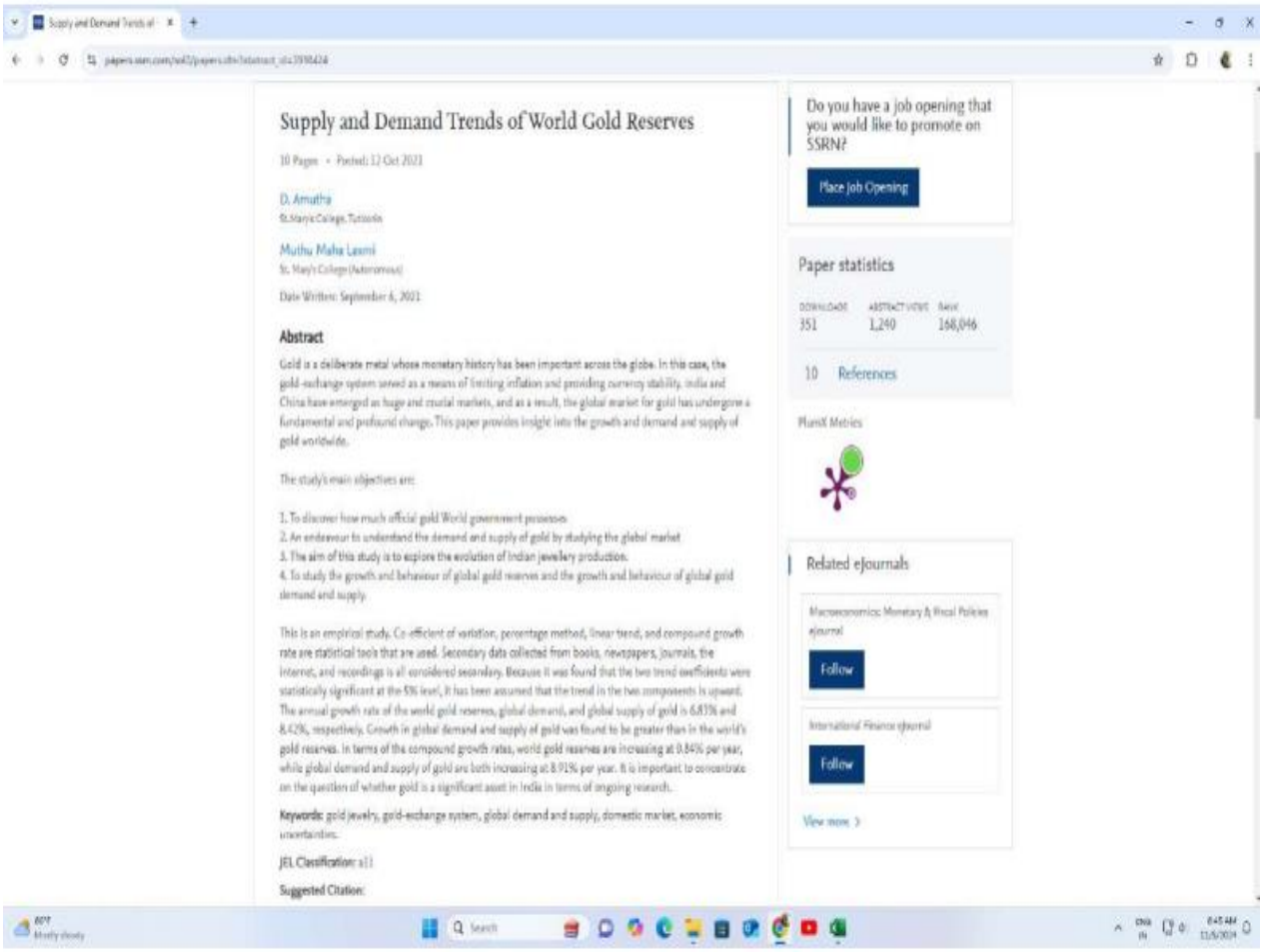

Supply and Demand Trends of World Gold Reserves

10 Pages • Posted: 12 Oct 2021

D. Amutha
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Muthu Maha Laxmi
St. Mary's College (Autonomous)

Date Written: September 6, 2021

Abstract

Gold is a deliberate metal whose monetary history has been important across the globe. In this case, the gold-exchange system served as a means of limiting inflation and providing currency stability. India and China have emerged as huge and crucial markets, and as a result, the global market for gold has undergone a fundamental and profound change. This paper provides insight into the growth and demand and supply of gold worldwide.

The study's main objectives are:

1. To discover how much official gold World government possesses
2. An endeavour to understand the demand and supply of gold by studying the global market
3. The aim of this study is to explore the evolution of Indian jewellery production.
4. To study the growth and behaviour of global gold reserves and the growth and behaviour of global gold demand and supply

This is an empirical study. Co-efficient of variation, percentage method, linear trend, and compound growth rate are statistical tools that are used. Secondary data collected from books, newspapers, journals, the internet, and recordings is all considered secondary. Because it was found that the two trend coefficients were statistically significant at the 5% level, it has been assumed that the trend in the two components is upward. The annual growth rate of the world gold reserves, global demand, and global supply of gold is 6.83% and 8.42%, respectively. Growth in global demand and supply of gold was found to be greater than in the world's gold reserves. In terms of the compound growth rates, world gold reserves are increasing at 0.84% per year, while global demand and supply of gold are both increasing at 8.91% per year. It is important to concentrate on the question of whether gold is a significant asset in India in terms of ongoing research.

Keywords: gold jewelry, gold-exchange system, global demand and supply, domestic market, economic uncertainties.

JEL Classification: s11

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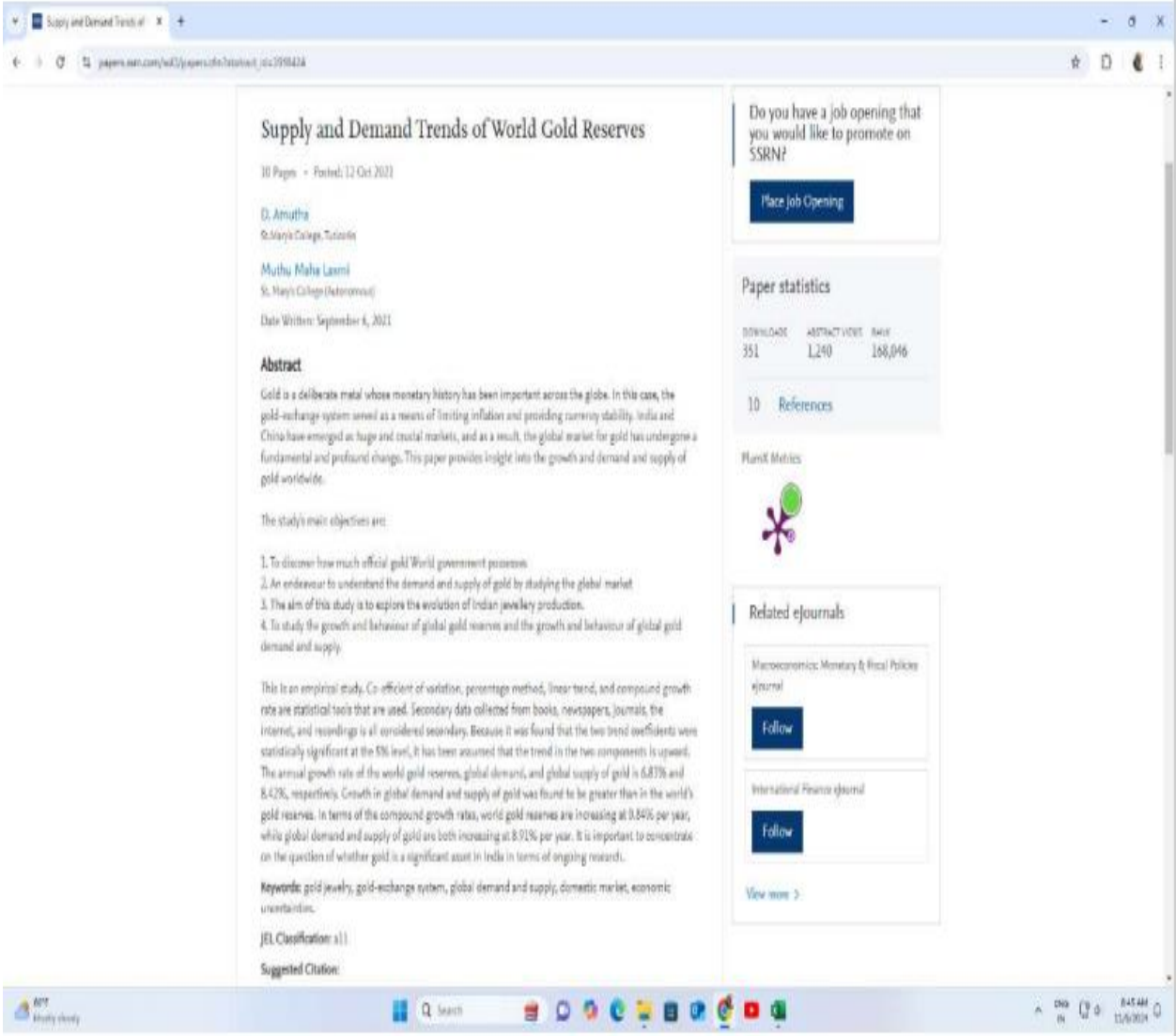

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JEL Classification: a11

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IMPACT OF LOANS ISSUED AND THE RECOVERY OF LOANS BY COMMERCIAL BANKS IN THE POST REFORM PERIOD

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Abstract

The economy's backbone is its banking system. Economic development is strongly aided by a well-developed financial system, which leads to higher national income and living standards. The presence of integrated, established, and regulated financial markets and institutions that cater to the financial needs of both the household and corporate and government sectors characterises an organised financial system. The study's goal is to determine the effects of banking reforms in India by looking at lending and reinstatement of commercial bank loans over the post-reform era, which spans 1990-91 to 2019-20.

The study draws on secondary data from a variety of sources, including annual reports from various banks, the RBI newsletter, various Indian banking reports, Indian Bank Association publications, the Indian Banking Institute, the National Bank Management Institute, and various journals in related fields. Mean, Standard Deviation, CAGR, correlation co-efficient, and co-efficient of variations are all percentage techniques that have been used.

According to the study, from 1990-91 to 2019-20, the average amount of loans issued was Rs. 3121.18, whereas the average amount of loans recovered in the post-reform period was Rs. 13754.34. However, between 1990 and 2019, the total amount of loans issued and loans recovered grew at a positive CAGR of 2.47 percent and 5.51 percent, respectively, with a high CV of 16.80 percent and 1.28 percent and a high CV of 16.80 percent and 1.28 percent. Between issued loans and loan recovery, the post-reform period has a 0.914 correlation coefficient. The association between loans that have been issued and those that have been recovered is undeniably beneficial. This demonstrates that, following the reform, a greater rate of loan issuance led to a higher rate of debt collection from loan beneficiaries. The bank's loan recovery performance has thus been rated satisfactory in the post-reform period.

Keywords: financial system, economic development, economic reforms, technical efficiency, correlation coefficient.