3.3.2 Number Of Research Papers Published In The Journals Notified On UGC Website During the Year

INDEX SHEET

Sl.No	Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Indexing	Page/ Journal No
32	Bio-mediated Sm doped nano cubic zirconia: Photoluminescent,JuddeOfelt analysis, electrochemical impedance spectroscopy andphotocatalytic performance	K. Gurushantha	Chemistry	Journal of Alloys and Compounds	2016-Jun	0925-8388	Scopus	32
33	Spectrophotometric determination of some cephalosporins in bulk and in pharmaceutical formulations.	Roopa KP	Chemistry	Analytical chemistry letters	2016-Jun	22297928	UGC Earlier	33
34	Optimal mass ratio of vibratory flap for vibration control of clamped rectangular plate	P.Mahadevaswamy, BS Suresh	ME	Journal of Engineering science & Technology	2016-Mar	18234690	Scopus	34
35	Low-molecular weight hyaluronidase from the venom of Bungaruscaeruleus (Indian common krait) snake: Isolation and partial characterization	Veena S More	BT	Journal of Liquid Chromatography & Related Technologies Volume	2016-Mar	1082-6076	Scopus	35
36	Optical Properties of Erbium Doped Bismuth Tellurite Glasses	K. Keshavamurthy	Physics	Journal of Computational and Theoretical Nanoscience		1546-1963	Scopus	
37	Predictive-Based Stochastic Modelling of Power Transmission System for Leveraging Fault Tolerance	G. Raghavendra	EEE	Advances in Intelligent Systems and Computing		2194-5357	Scopus	
38	Scorpion Toxin Polyptides as Therapeutic Agents: An Overview	Veena S More	BT	Protein & Peptide Letters	2016-May	0929-8665	Scopus	38

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41	Role of bio-adsorbents in reducing toxic metals.	Krishna Murthy NB	BT	Journal of Toxicology	2016-Oct	16878191	WOS	41
42	Role of bio-adsorbents in reducing toxic metals.	Blessy Baby Mathew	BT	Journal of Toxicology	2016-Oct	16878191	WOS	42
43	Spectrophotometric estimation of lamotriginine in tablet	Roopa KP	Chemistry	Indian Journal of Pharmaectical Science	2016-Sep	0250474X	UGC	43
44	Assessment of variable source area hydrological models in humid tropical watersheds	B. C. Kumar Raju and Lakshman Nandagiri	Civil	International Journal of River Basin Management	2017-Aug	1571-5124	WOS	44
45	Studies on radon concentration in drinking water around Hemavathi river basin, Karnataka State, India	Rangaswamy DR	Physics	J Radioanal Nucl Chem	2017-Aug	0236-5731	Scopus	45
46	Silver lead borate glasses doped with europium ions for phosphors application applications	K. Keshavamurthy	Physics	Bulletin of Materials Science	2017-Aug	2504707	WOS	46
47	Concentration of radon and physicochemical parameters in ground water around Kolar Gold Fields, Karnataka State, India.	Rangaswamy DR	Physics	J Radioanal Nucl Chem	2017-Aug	0236-5731	Scopus	47
48	Combined endeavour of Neutrosophic set and chan vese model to extract accurate liver image from Ct Scan	Sangeeta K Siri	EC	Computer Methods and Programs in Biomedicine	2017-Aug	01692607	Scopus	48

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49	Pathovars Inhibition From Copper Based Nanoparticles Synthesized From Leaf Extract Of Flacourtia Montana	Ananda S	BT	Journal of Bionanoscience	2017-Dec	15577910	Scopus	49
50	Pathovars Inhibition From Copper Based Nanoparticles Synthesized From Leaf Extract Of Flacourtia Montana	Shobha G	BT	Journal of Bionanoscience	2017-Dec	15577910	Scopus	50
51	Universal liver exraction algorithm: An improved chan-vese model	Sangeeta K Siri	EC	Journal of Intelligent Systems	2017-Dec	03341860	Scopus	51
52	Analysis of historical trends in hydrometeorological variables in the upper Cauvery Basin, Karnataka, India	B. C. Kumar Raju and Lakshman Nandagiri	Civil	Current Science	2017-Feb	727504	WOS	52
53	New green synthesized reduced graphene oxide– ZrO2 composite as high performance photocatalyst under sunlight	K. Gurushantha	Chemistry	RSC Advances	2017-Feb	20462069	Scopus	53
54	DAR- Distributed Adhoc Routing framework via Enhancing QOS factors in wirelessSensorNetwork	Asha P N	ISE	International Journal of Computational and theoretical Nanosciences		1546-1955	Scopus	
55	A novel approach tom extract liver boundary fron CT scan using neutrosophic set and fast marching method	Sangeeta K Siri	EC	Journal of Intelligent Systems	2017-Jan	3341860	Scopus	55
56	Classification, source and effect of environmental pollutants and its biodegradation.	Blessy Baby Mathew	BT	Journal of Environmental Pathology, Toxicology and Oncology.	2017-Jan	7318898	WOS	56
57	Classification, source and effect of environmental pollutants and its biodegradation.	Blessy Baby Mathew	BT	Journal of Environmental Pathology, Toxicology and Oncology.	2017-Jan	7318898	WOS	57

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58	A spoken query system for the agricultural commodity prices and weather information access in Kannada language	Thimmaraja Yadava G	EC	Journal of Intelligent Systems	2017-Jun	03341860	Scopus	58
59	A Robust Image Watermarking Technique using DTCWT and PCA	Sudha M S	EC	International Journal of Applied Engineering Research	2017-Jun	9734562	UGC Earlier	59

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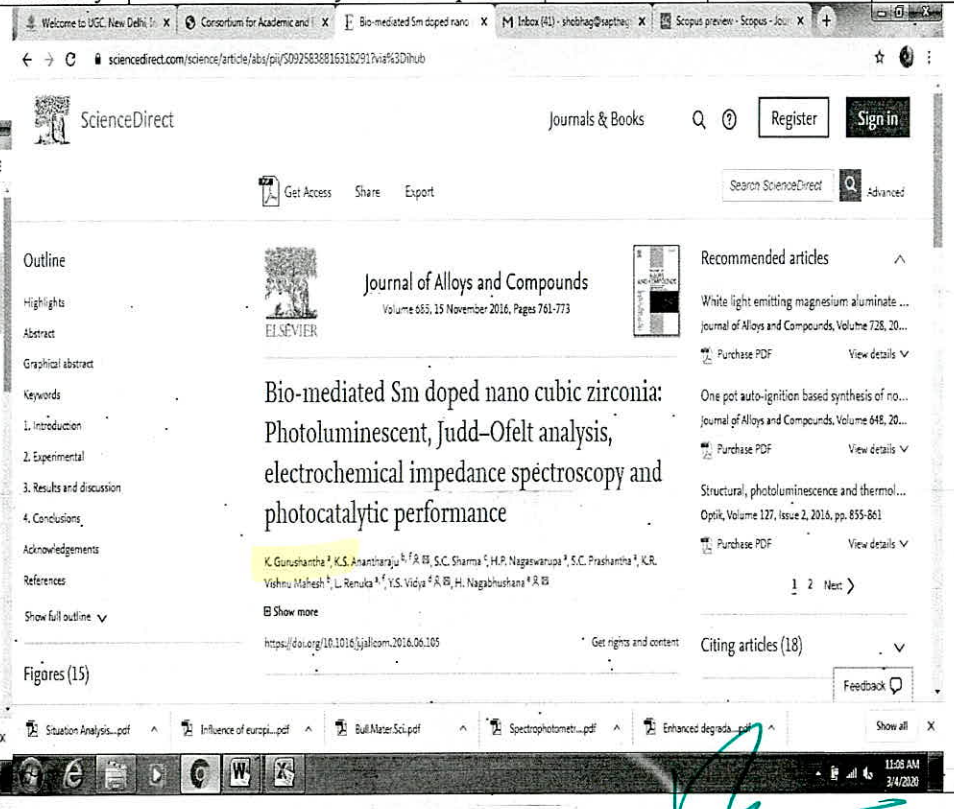
Journal Paper No -32

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Bio-mediated Sm doped nano cubic zirconia: Photoluminescent,JuddeOfelt analysis, electrochemical impedance spectroscopy andphotocatalytic performance	K. Gurushantha	Chemistry	Journal of Alloys and Compounds	Jun-16	0925-8388	Scopus



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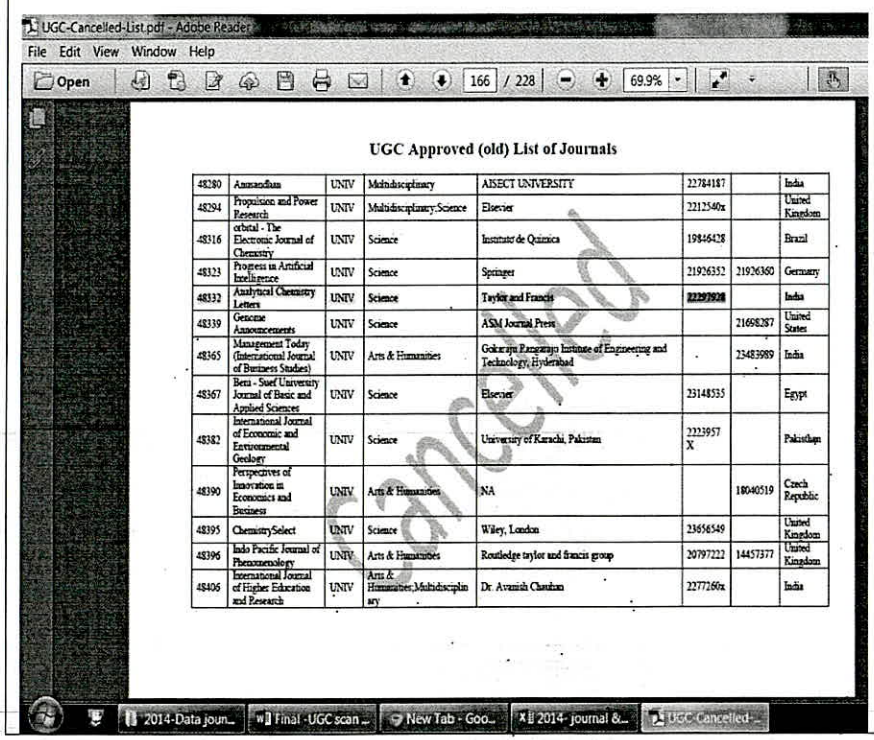
Journal Paper No -33

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Spectrophotometric determination of some cephalosporins in bulk and in pharmaceutical formulations.	Roopa KP	Chemistry	Analytical chemistry letters	Jun-16	22297928	UGC Earlier



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UGC Approved (old) List of Journals

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48294	Propulsion and Power Research	UNIV	Multidisciplinary;Science	Elsevier	2212540x		United Kingdom
48316	orbital - The Electronic Journal of Chemistry	UNIV	Science	Instituto de Quimica	19846428		Brazil
48323	Progress in Artificial Intelligence	UNIV	Science	Springer	21926352	21926360	Germany
48332	Analytical Chemistry Letters	UNIV	Science	Taylor and Francis	22297928		India
48339	Genome Announcements	UNIV	Science	ASM Journal Press		21698287	United States
48365	Management Today (International Journal of Business Studies)	UNIV	Arts & Humanities	Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad		23483989	India
48367	Beni - Suef University Journal of Basic and Applied Sciences	UNIV	Science	Elsevier	23148535		Egypt
48382	International Journal of Economic and Environmental Geology	UNIV	Science	University of Karachi, Pakistan	2223957X		Pakistan
48390	Perspectives of Innovation in Economics and Business	UNIV	Arts & Humanities	NA		18040519	Czech Republic
48395	ChemistrySelect	UNIV	Science	Wiley, London	23656549		United Kingdom
48396	Indo Pacific Journal of Phenomenology	UNIV	Arts & Humanities	Routledge taylor and francis group	20797222	14457377	United Kingdom
48406	International Journal of Higher Education and Research	UNIV	Arts & Humanities;Multidisciplinary	Dr. Avanish Chauhan	2277260x		India

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10/31/2019 Spectrophotometric Determination of Some Cephalosporins in Bulk and in Pharmaceutical Formulations: Analytical Chemistry Lett...

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Original Articles

Spectrophotometric Determination of Some Cephalosporins in Bulk and in Pharmaceutical Formulations

K.P. Roopa & B.K. Jayanna

Pages 143-152 | Received 28 Jan 2016, Accepted 16 Mar 2016, Published online: 17 Jun 2016

Download citation https://doi.org/10.1080/22297928.2016.1191970

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Abstract

A simple, accurate and sensitive spectrophotometric method has been developed for the analysis of four cephalosporins, ceftriaxone (CEFT), cefatoxime (CEFX), ceftazidime (CEZD) and cefepime (CEPM) in bulk and in pharmaceutical formulations. The method is based on the diazotization of cephalosporins in acidic medium, followed by coupling with 3-amino phenol (AP), to give orange red colored product having a λ_{max} of 500 nm. The calibration graphs are rectilinear in the concentration ranges 20 -160 µg mL for CEFT, 20–140 µg mL^{-1} for CEFX & CEPM and 24 - 168 µg mL^{-1} for CEZD respectively in the final measured solution. All the optimum conditions are established and other analytical parameters are evaluated.

Commonly associated excipients did not interfere with the determinations. Statistical analysis of results indicates that the method is precise and accurate.

https://www.tandfonline.com/doi/abs/10.1080/22297928.2016.1191970 1/3

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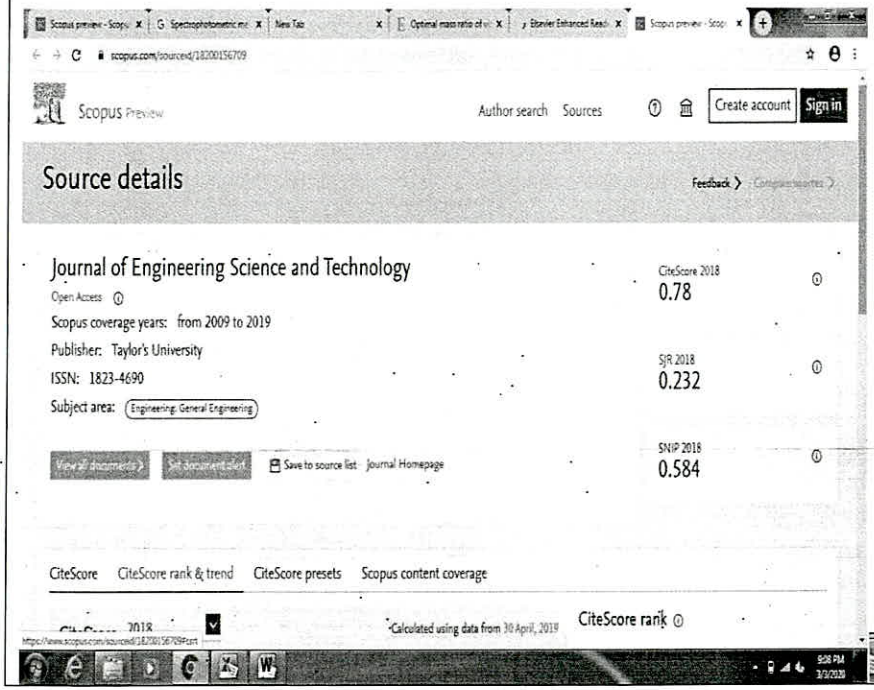
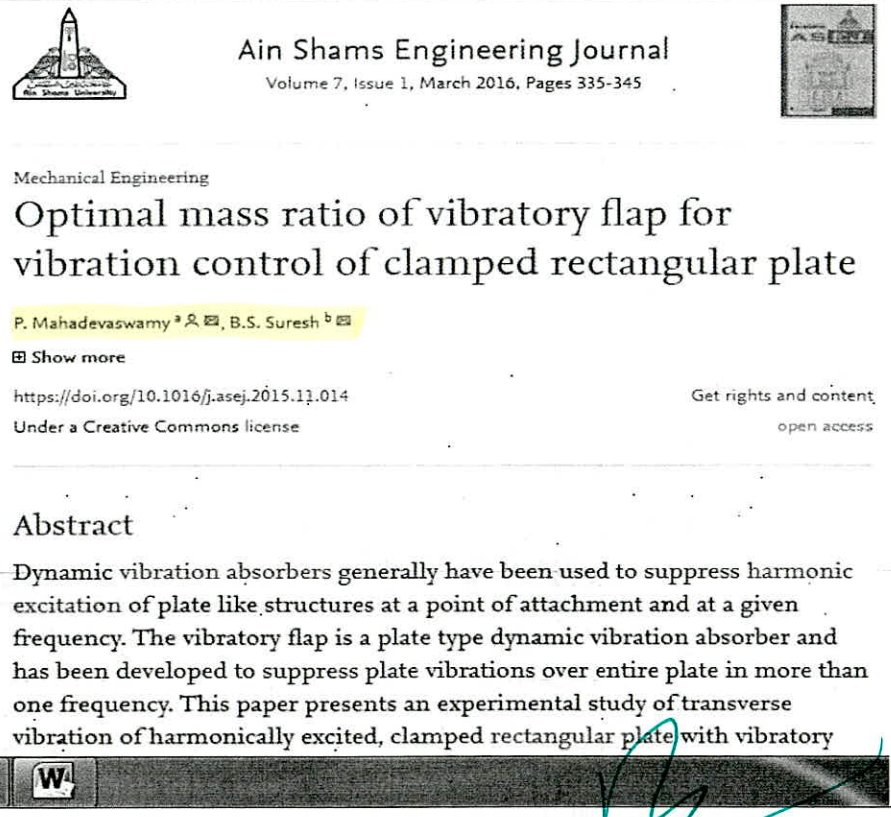
Journal Paper No -34

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Optimal mass ratio of vibratory flap for vibration control of clamped rectangular plate	P.Mahadeva swamy, BS Suresh	ME	Journal of Engineering science & Technology	Apr-14	18234690	Scopus





Ain Shams Engineering Journal
Volume 7, Issue 1, March 2016, Pages 335-345

Mechanical Engineering

Optimal mass ratio of vibratory flap for vibration control of clamped rectangular plate

P. Mahadevaswamy [a], B.S. Suresh [b]

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https://doi.org/10.1016/j.asej.2015.11.014

Abstract

Dynamic vibration absorbers generally have been used to suppress harmonic excitation of plate like structures at a point of attachment and at a given frequency. The vibratory flap is a plate type dynamic vibration absorber and has been developed to suppress plate vibrations over entire plate in more than one frequency. This paper presents an experimental study of transverse vibration of harmonically excited, clamped rectangular plate with vibratory

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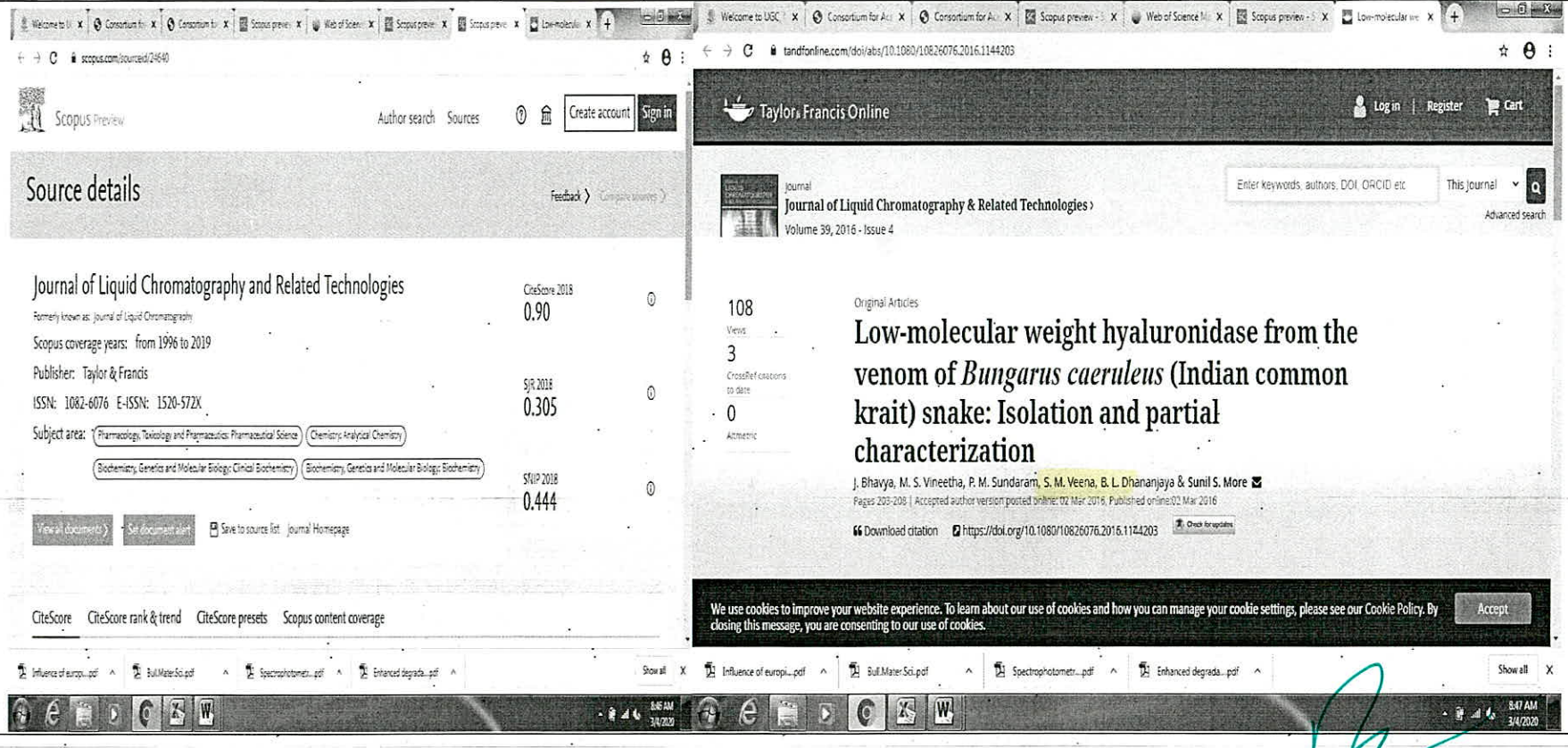
Journal Paper No -35

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Low-molecular weight hyaluronidase from the venom of Bungaruscaeruleus (Indian common krait) snake: Isolation and partial characterization	Veena S More	BT	Journal of Liquid Chromatography & Related Technologies Volume	Mar-16	1082-6076	Scopus



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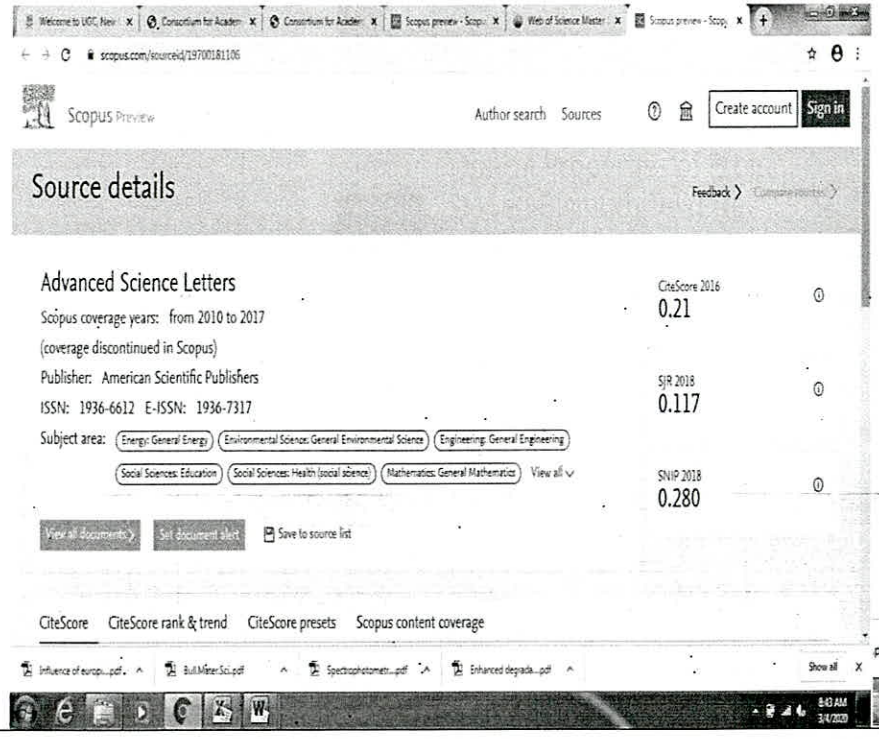
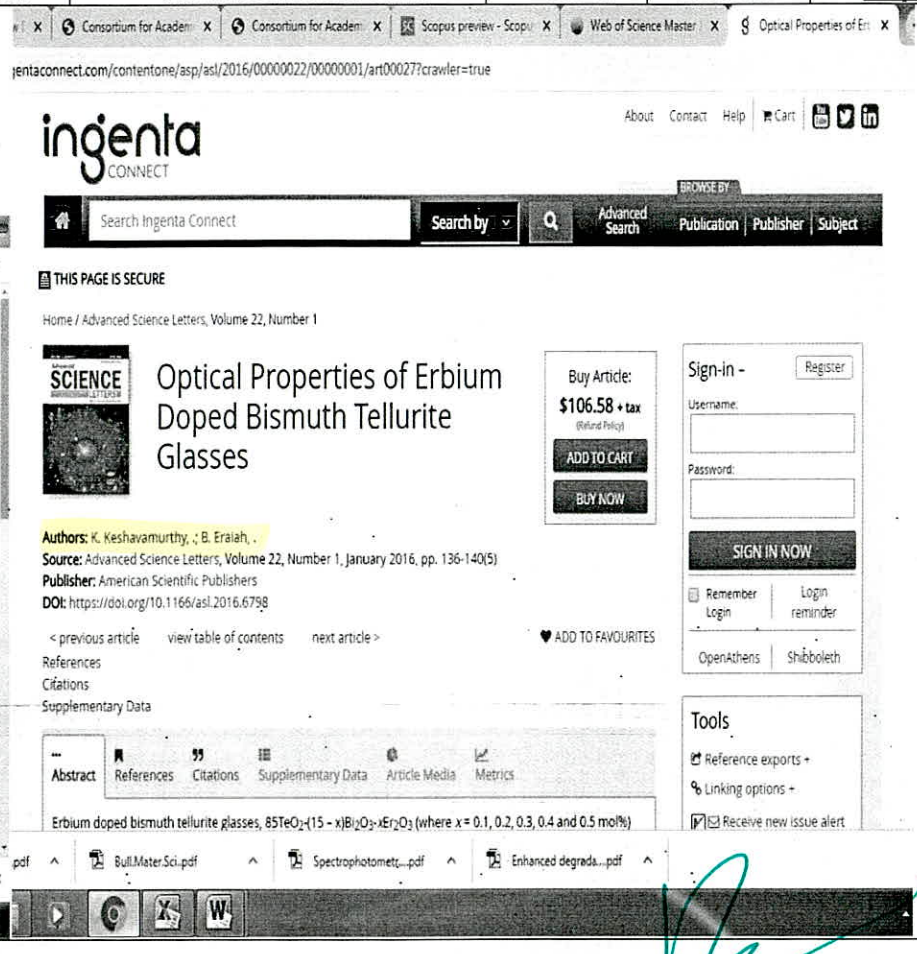
Journal Paper No -36

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Optical properties of erbium doped bismuth tellurite glasses	K. Keshavamurthy	Physics	Advanced Science Letters	Jan-16	19366612	Scopus





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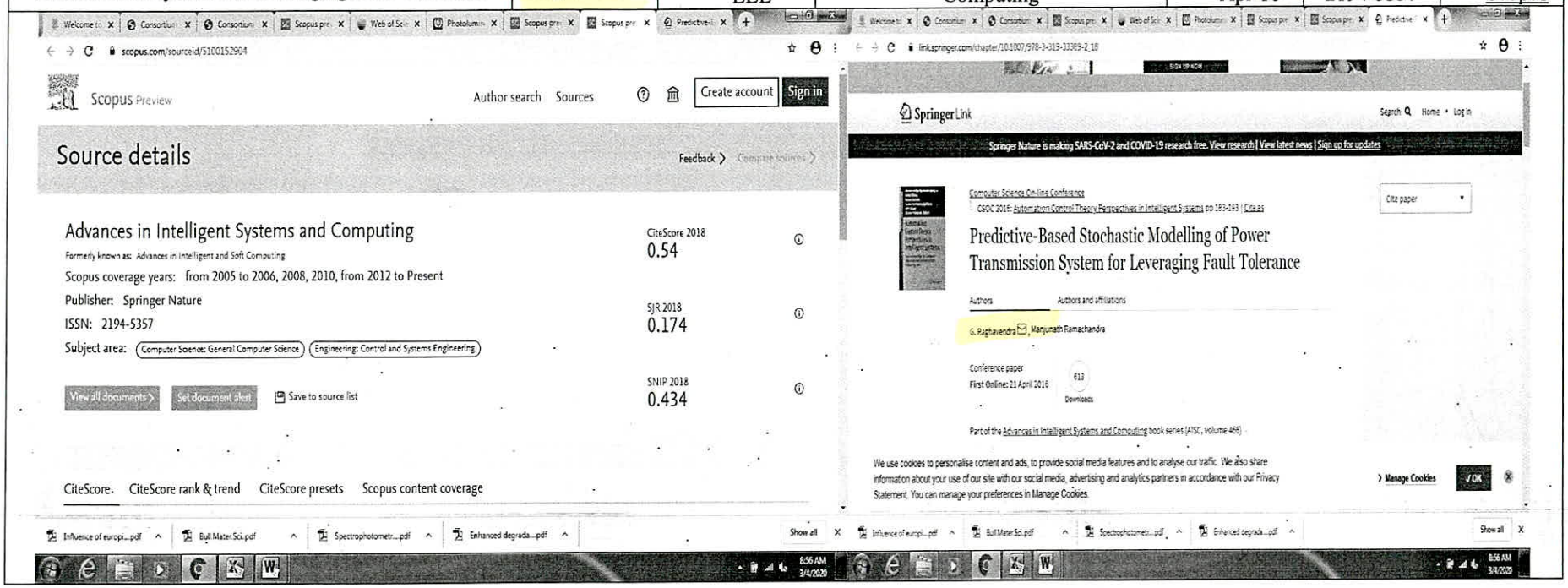
Journal Paper No -37

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Predictive-Based Stochastic Modelling of Power Transmission System for Leveraging Fault Tolerance	G. Raghavendra	EEE	Advances in Intelligent Systems and Computing	Apr-16	2194-5357	Scopus



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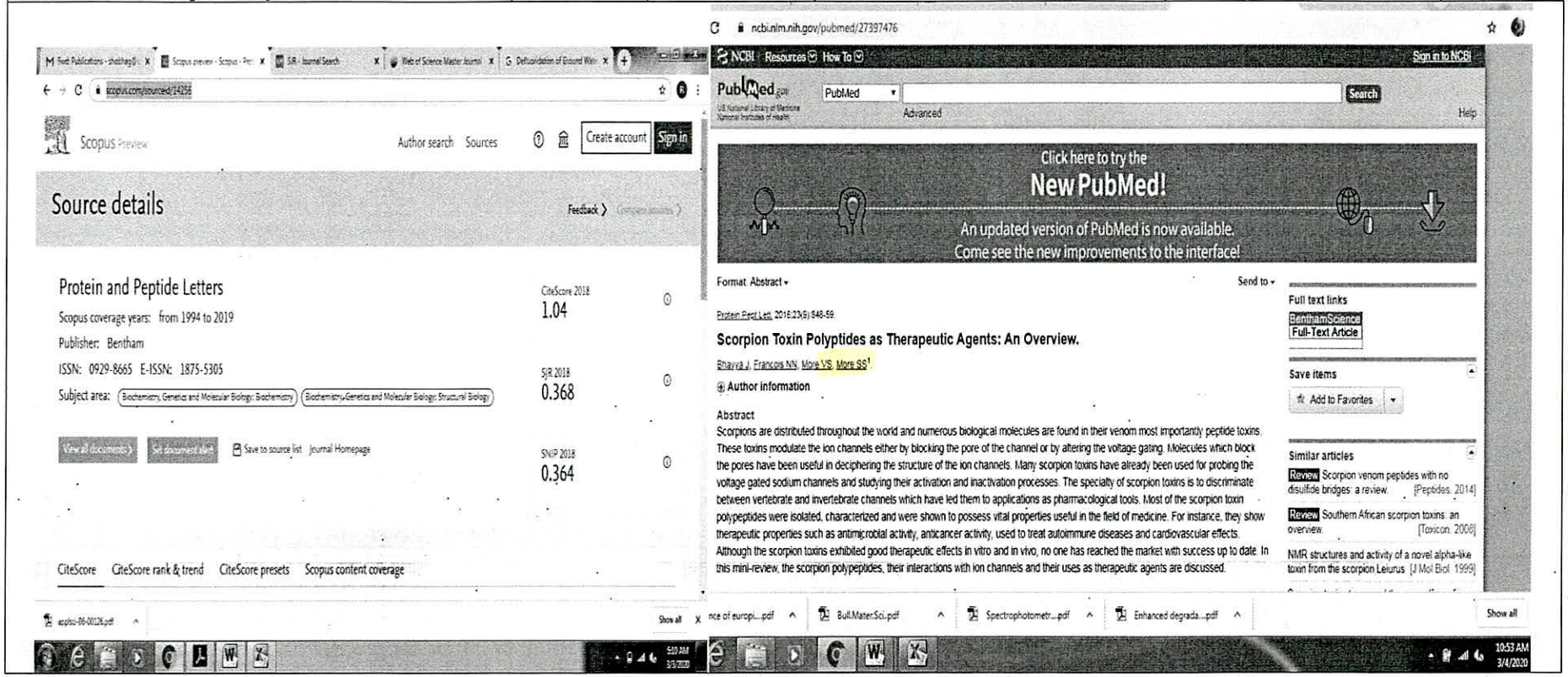
Journal Paper No -38

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Scorpion Toxin Polyptides as Therapeutic Agents: An Overview	Veena S More	BT	Protein & Peptide Letters	May-16	0929-8665	Scopus



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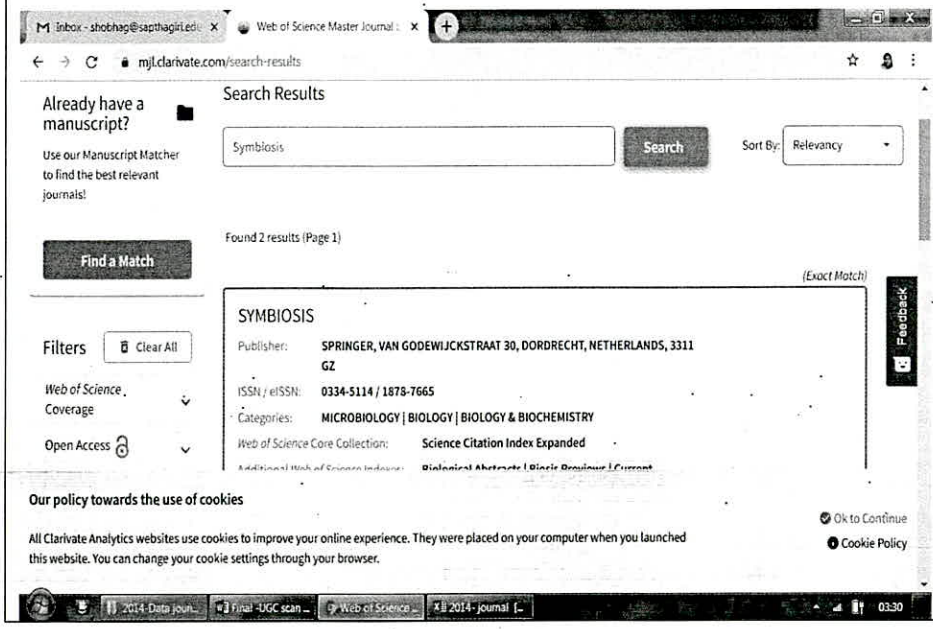
Journal Paper No -39

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
In silico exploration of cyclooxygenase inhibitory activity of natural compounds found in Myrica nagi using LC-MS	Prashanth Kumar HP	BT	Symbiosis	Jun-16	0334-5114	Scopus



Symbiosis
DOI 10.1007/s13199-016-0417-8

In silico exploration of cyclooxygenase inhibitory activity of natural compounds found in *Myrica nagi* using LC-MS

Sushil Kumar Middha[1,2,3] · Arvind Kumar Goyal[4] · Ankit Bhardwaj[2] · Raj Kamal[4] · Prakash Lokesh[5] · Hoskote Puttitharudiya Prashanth[6] · Gulshan Wadhwa[7] · Talambedu Usha[1,2,8]

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Abstract The process of inflammation is associated with several disorders such as cardiovascular disease, cancer and arthritis. Cyclooxygenase (COX) receptors play an important role in inflammation. COX-2 is an endogenous enzyme which catalyses and converts arachidonic acid to prostaglandins and thromboxanes. The prediction of the docking of small molecules at the active site, i.e. receptor binding site, and the projection of the binding affinity of the complex is a crucial part of computer-aided drug design. The current study evaluates the COX-2 inhibitory activity of compounds detected in *Myrica nagi*, an actinorhizal plant, using an in-silico approach. Liquid chromatography (LC-MS) studies of *M. nagi* leaf extract revealed the presence of 21 compounds. The known COX-2 inhibitor Celecoxib was used as reference. Silico docking studies were carried out using iGemdock and verified by discovery studio and autodock software. Three important parameters—binding energy, inhibition constant and intermolecular energy were determined. The results showed that all selected compounds showed binding energies between −28.19 kcal/mol to −63.13 kcal/mol in iGEMDOCK. Myricetin (−63.13 kcal/mol) showed the best binding energy compared with the Celecoxib reference (−62.35 kcal/mol). Discovery studio and autodock also calculated the same patterns of binding energy. All selected compounds displayed COX inhibitory activity probably due to their structural parameters. These molecular docking analyses may lead to the further development of potent COX inhibitors for the treatment of inflammation.

Keywords Binding energy · Cyclooxygenase (COX) · Flavonoids · Inflammation · *Myrica nagi*

1 Introduction

Myrica nagi (also called box berry, Kafal, Kaiphala) is an actinorhizal plant, found in the Himalayan mountain areas of India. Actinorhizal plants play a vital role in soil

Presented at the 18th International Meeting on Frankia and Actinorhizal Plants (ACTINO2015), August 24-27, 2015, Montpellier, France

Electronic supplementary material The online version of this article (doi:10.1007/s13199-016-0417-8) contains supplementary material, which is available to authorized users.

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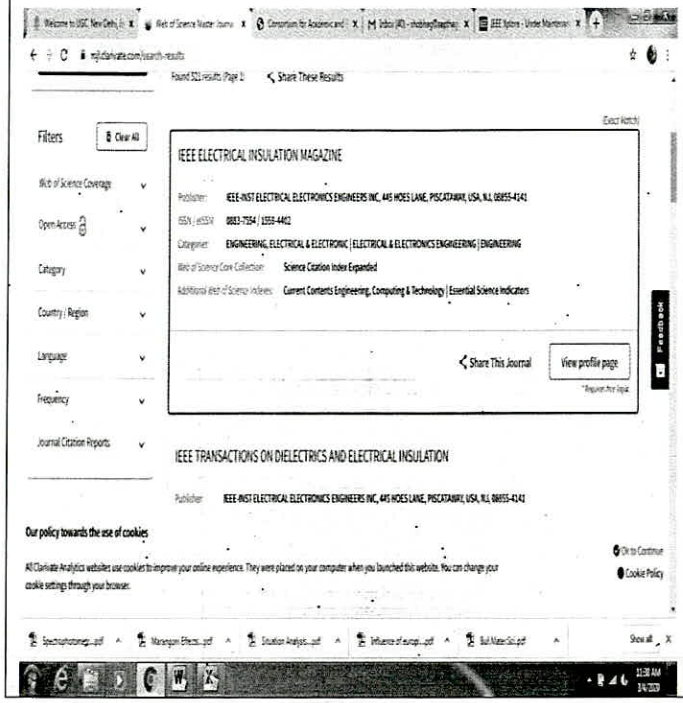
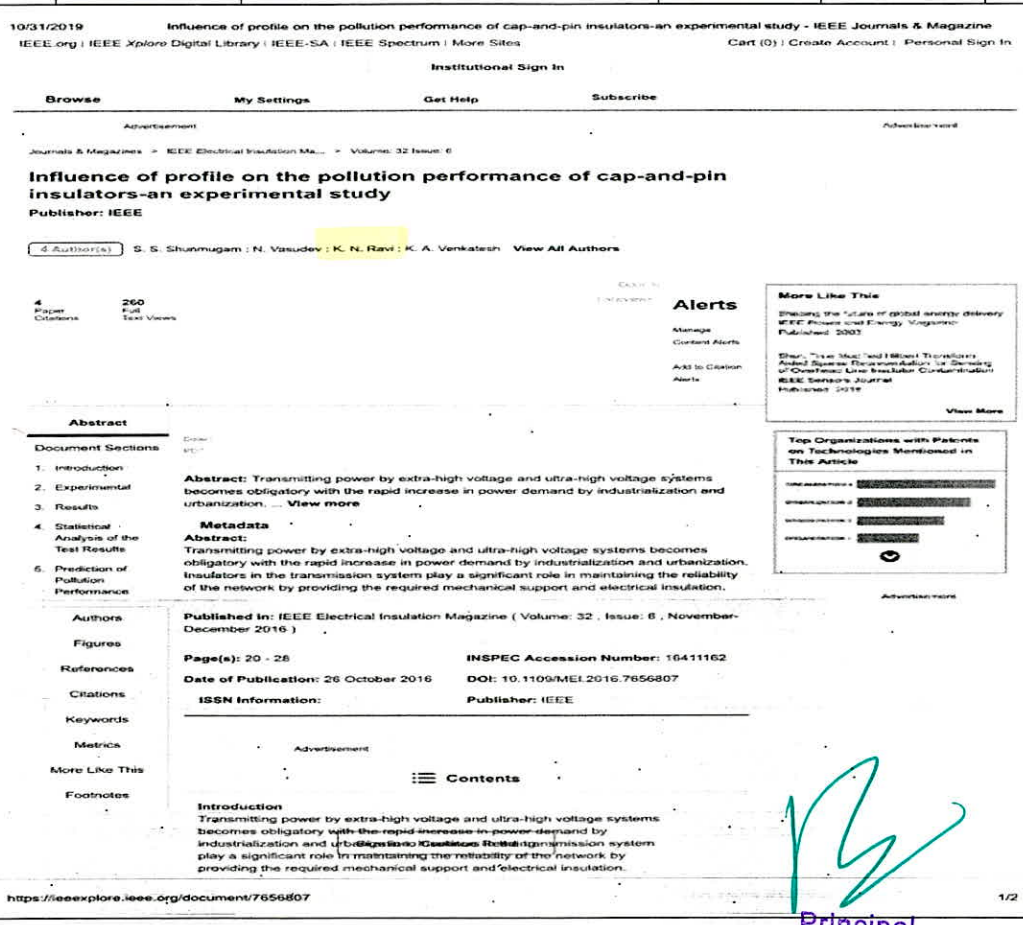
Journal Paper No -40

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Influence of Profile on the Pollution Performance of Cap-and-Pin Insulators - An Experimental Study	KN Ravi	EEE	IEEE Electrical Insulation Magazine	Oct-16	0883-7554	WOS





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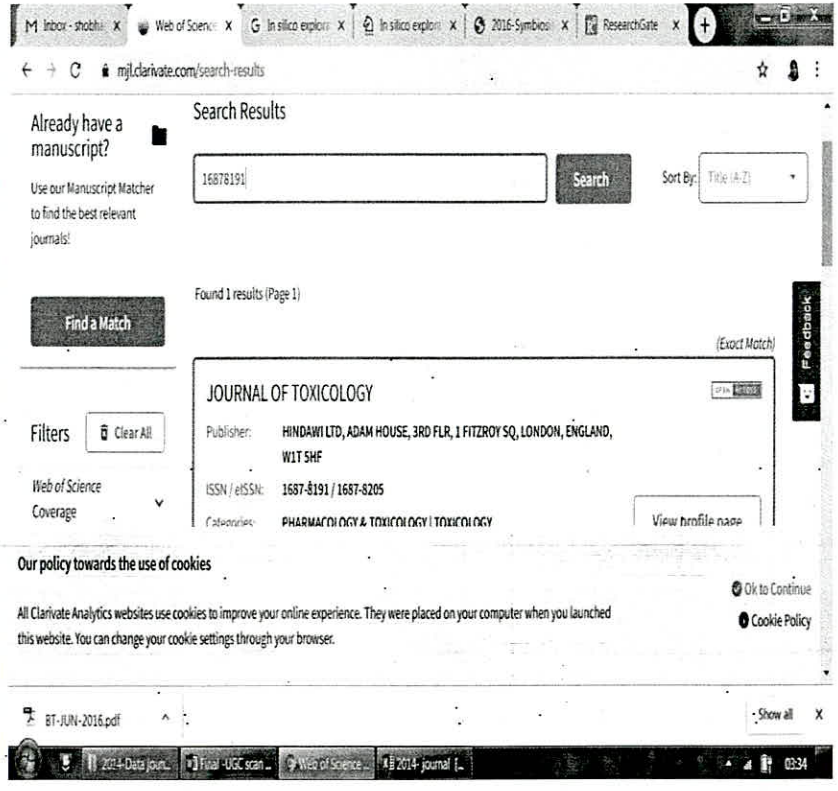
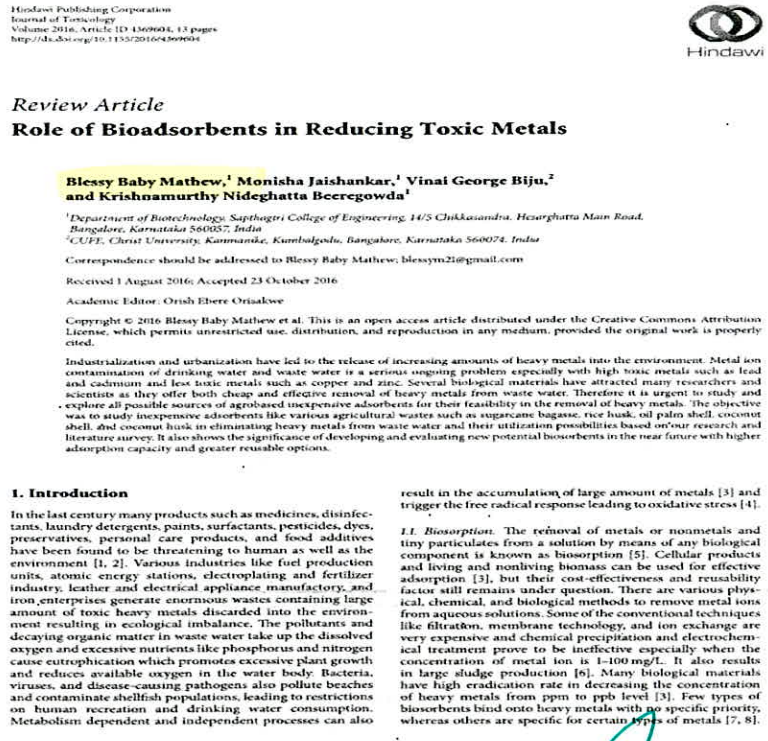
Journal Paper No -41

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Role of bio-adsorbents in reducing toxic metals.	Blessy Baby Mathew	BT	Journal of Toxicology	Oct-16	16878191	WOS





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Journal of Toxicology
Volume 2016, Article ID 1369804, 13 pages
http://dx.doi.org/10.1155/2016/1369804

Review Article

Role of Bioadsorbents in Reducing Toxic Metals

Blessy Baby Mathew,[1] Monisha Jaishankar,[1] Vinai George Biju,[2] and Krishnamurthy Nideghatta Beeregowda[1]

[1]*Department of Biotechnology, Sapthagiri College of Engineering, 14/5 Chikkasandra, Hesarghatta Main Road, Bangalore, Karnataka 560057, India*
[2]*CUFE, Christ University, Kanmanike, Kumbalgodu, Bangalore, Karnataka 560074, India*

Correspondence should be addressed to Blessy Baby Mathew; blessym2l@gmail.com

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Academic Editor: Orish Ebere Orisakwe

Industrialization and urbanization have led to the release of increasing amounts of heavy metals into the environment. Metal ion contamination of drinking water and waste water is a serious ongoing problem especially with high toxic metals such as lead and cadmium and less toxic metals such as copper and zinc. Several biological materials have attracted many researchers and scientists as they offer both cheap and effective removal of heavy metals from waste water. Therefore it is urgent to study and explore all possible sources of agrobased inexpensive adsorbents for their feasibility in the removal of heavy metals. The objective was to study inexpensive adsorbents like various agricultural wastes such as sugarcane bagasse, rice husk, oil palm shell, coconut shell, and coconut husk in eliminating heavy metals from waste water and their utilization possibilities based on our research and literature survey. It also shows the significance of developing and evaluating new potential biosorbents in the near future with higher adsorption capacity and greater reusable options.

1. Introduction

In the last century many products such as medicines, disinfectants, laundry detergents, paints, surfactants, pesticides, dyes, preservatives, personal care products, and food additives have been found to be threatening to human as well as the environment [1, 2]. Various industries like fuel production units, atomic energy stations, electroplating and fertilizer industry, leather and electrical appliance manufactory, and iron enterprises generate enormous wastes containing large amount of toxic heavy metals discarded into the environment resulting in ecological imbalance. The pollutants and decaying organic matter in waste water take up the dissolved oxygen and excessive nutrients like phosphorus and nitrogen cause eutrophication which promotes excessive plant growth and reduces available oxygen in the water body. Bacteria, viruses, and disease-causing pathogens also pollute beaches and contaminate shellfish populations, leading to restrictions on human recreation and drinking water consumption. Metabolism dependent and independent processes can also result in the accumulation of large amount of metals [3] and trigger the free radical response leading to oxidative stress [4].

1.1. Biosorption. The removal of metals or nonmetals and tiny particulates from a solution by means of any biological component is known as biosorption [5]. Cellular products and living and nonliving biomass can be used for effective adsorption [3], but their cost-effectiveness and reusability factor still remains under question. There are various physical, chemical, and biological methods to remove metal ions from aqueous solutions. Some of the conventional techniques like filtration, membrane technology, and ion exchange are very expensive and chemical precipitation and electrochemical treatment prove to be ineffective especially when the concentration of metal ion is 1–100 mg/L. It also results in large sludge production [6]. Many biological materials have high eradication rate in decreasing the concentration of heavy metals from ppm to ppb level [3]. Few types of biosorbents bind onto heavy metals with no specific priority, whereas others are specific for certain types of metals [7, 8].

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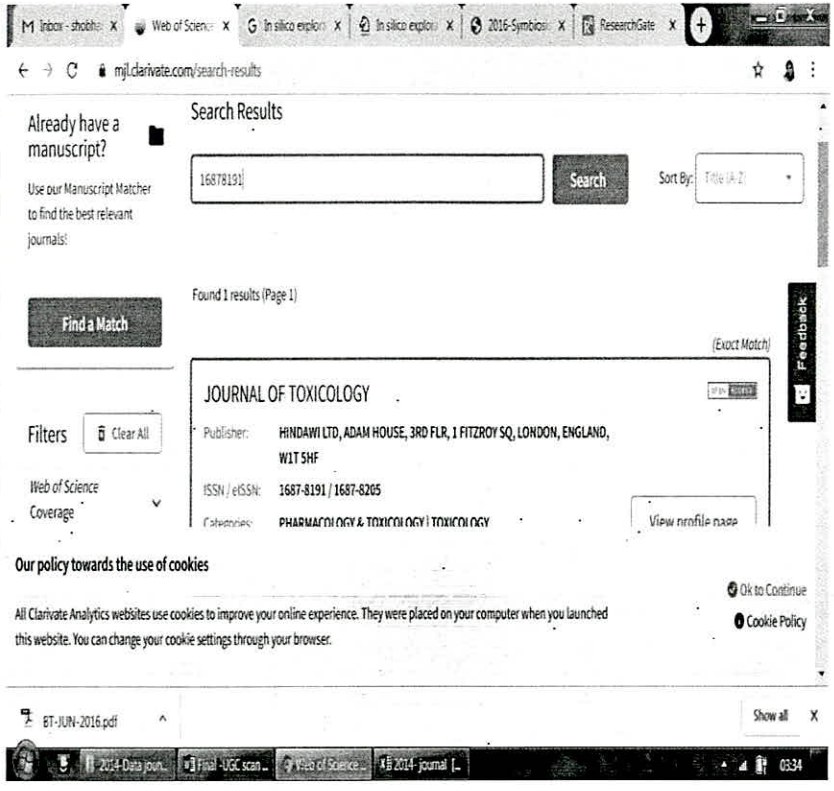
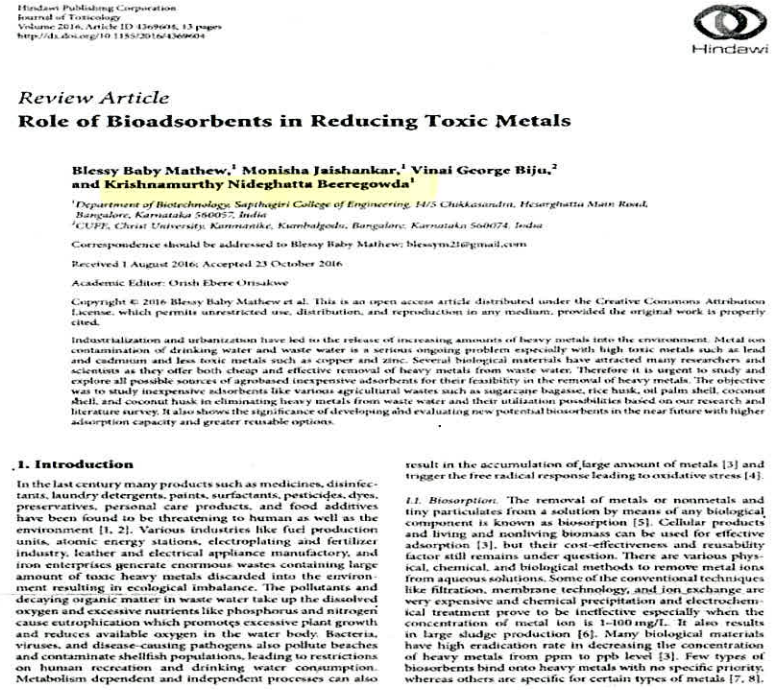
Journal Paper No -42

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Role of bio-adsorbents in reducing toxic metals.	Krishan Murthy NB	BT	Journal of Toxicology	Oct-16	16878191	WOS





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Journal of Toxicology
Volume 2016, Article ID 4369604, 13 pages
http://dx.doi.org/10.1155/2016/4369604

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Review Article

Role of Bioadsorbents in Reducing Toxic Metals

Blessy Baby Mathew,[1] Monisha Jaishankar,[1] Vinai George Biju,[2] and Krishnamurthy Nideghatta Beeregowda[1]

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Industrialization and urbanization have led to the release of increasing amounts of heavy metals into the environment. Metal ion contamination of drinking water and waste water is a serious ongoing problem especially with high toxic metals such as lead and cadmium and less toxic metals such as copper and zinc. Several biological materials have attracted many researchers and scientists as they offer both cheap and effective removal of heavy metals from waste water. Therefore it is urgent to study and explore all possible sources of agrobased inexpensive adsorbents for their feasibility in the removal of heavy metals. The objective was to study inexpensive adsorbents like various agricultural wastes such as sugarcane bagasse, rice husk, oil palm shell, coconut shell, and coconut husk in eliminating heavy metals from waste water and their utilization possibilities based on our research and literature survey. It also shows the significance of developing and evaluating new potential biosorbents in the near future with higher adsorption capacity and greater reusable options.

1. Introduction

In the last century many products such as medicines, disinfectants, laundry detergents, paints, surfactants, pesticides, dyes, preservatives, personal care products, and food additives have been found to be threatening to human as well as the environment [1, 2]. Various industries like fuel production units, atomic energy stations, electroplating and fertilizer industry, leather and electrical appliance manufactory, and iron enterprises generate enormous wastes containing large amount of toxic heavy metals discarded into the environment resulting in ecological imbalance. The pollutants and decaying organic matter in waste water take up the dissolved oxygen and excessive nutrients like phosphorus and nitrogen cause eutrophication which promotes excessive plant growth and reduces available oxygen in the water body. Bacteria, viruses, and disease-causing pathogens also pollute beaches and contaminate shellfish populations, leading to restrictions on human recreation and drinking water consumption. Metabolism dependent and independent processes can also result in the accumulation of large amount of metals [3] and trigger the free radical response leading to oxidative stress [4].

1.1. Biosorption. The removal of metals or nonmetals and tiny particulates from a solution by means of any biological component is known as biosorption [5]. Cellular products and living and nonliving biomass can be used for effective adsorption [3], but their cost-effectiveness and reusability factor still remains under question. There are various physical, chemical, and biological methods to remove metal ions from aqueous solutions. Some of the conventional techniques like filtration, membrane technology, and ion exchange are very expensive and chemical precipitation and electrochemical treatment prove to be ineffective especially when the concentration of metal ion is 1–100 mg/L. It also results in large sludge production [6]. Many biological materials have high eradication rate in decreasing the concentration of heavy metals from ppm to ppb level [3]. Few types of biosorbents bind onto heavy metals with no specific priority, whereas others are specific for certain types of metals [7, 8].

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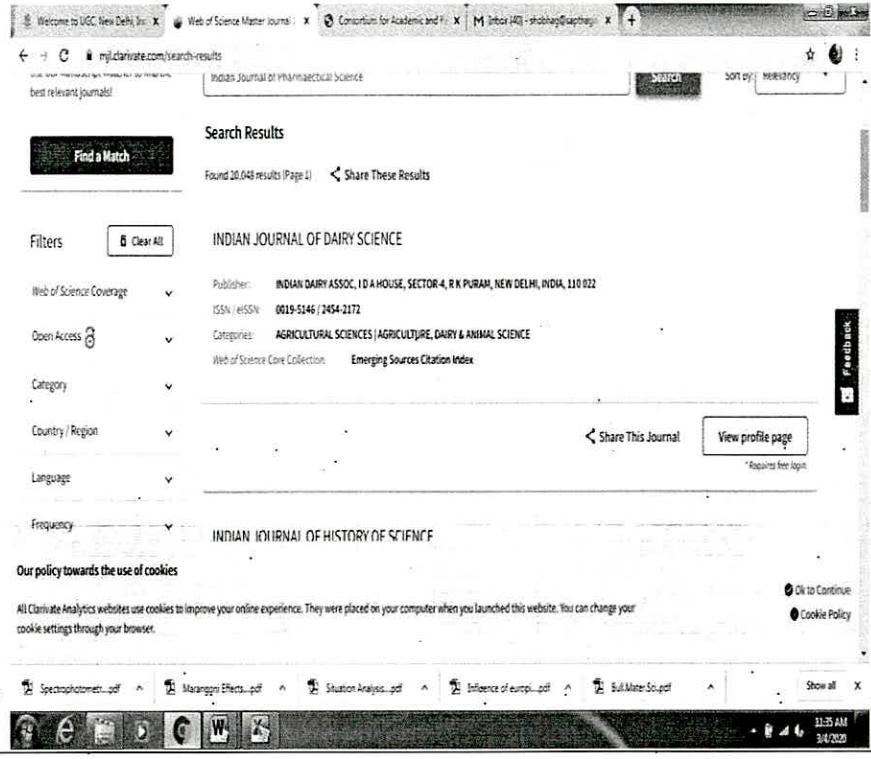
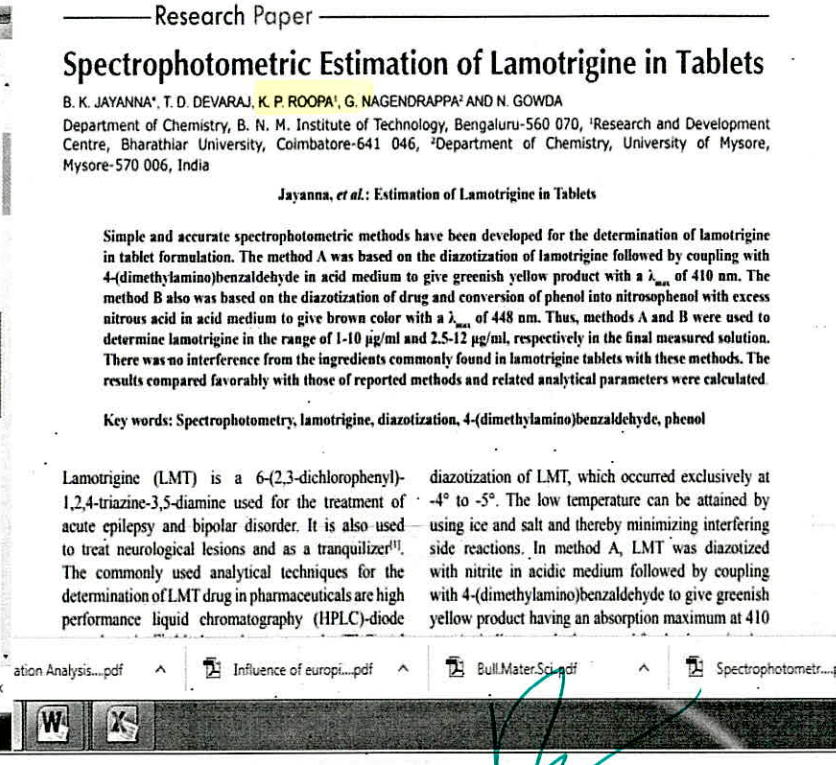
Journal Paper No -43

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Spectrophotometric estimation of lamotriginine in tablet	Roopa KP	Chemistry	Indian Journal of Pharmaectical Science	Oct-16	0250474X	UGC





Research Paper

Spectrophotometric Estimation of Lamotrigine in Tablets

B. K. JAYANNA*, T. D. DEVARAJ, K. P. ROOPA[1], G. NAGENDRAPPA[2] AND N. GOWDA

Department of Chemistry, B. N. M. Institute of Technology, Bengaluru-560 070, [1]Research and Development Centre, Bharathiar University, Coimbatore-641 046, [2]Department of Chemistry, University of Mysore, Mysore-570 006, India

Simple and accurate spectrophotometric methods have been developed for the determination of lamotrigine in tablet formulation. The method A was based on the diazotization of lamotrigine followed by coupling with 4-(dimethylamino)benzaldehyde in acid medium to give greenish yellow product with a λ_{max} of 410 nm. The method B also was based on the diazotization of drug and conversion of phenol into nitrosophenol with excess nitrous acid in acid medium to give brown color with a λ_{max} of 448 nm. Thus, methods A and B were used to determine lamotrigine in the range of 1-10 µg/ml and 2.5-12 µg/ml, respectively in the final measured solution. There was no interference from the ingredients commonly found in lamotrigine tablets with these methods. The results compared favorably with those of reported methods and related analytical parameters were calculated.

Key words: Spectrophotometry, lamotrigine, diazotization, 4-(dimethylamino)benzaldehyde, phenol

Lamotrigine (LMT) is a 6-(2,3-dichlorophenyl)-1,2,4-triazine-3,5-diamine used for the treatment of acute epilepsy and bipolar disorder. It is also used to treat neurological lesions and as a tranquilizer[1]. The commonly used analytical techniques for the determination of LMT drug in pharmaceuticals are high performance liquid chromatography (HPLC)-diode

diazotization of LMT, which occurred exclusively at -4° to -5°. The low temperature can be attained by using ice and salt and thereby minimizing interfering side reactions. In method A, LMT was diazotized with nitrite in acidic medium followed by coupling with 4-(dimethylamino)benzaldehyde to give greenish yellow product having an absorption maximum at 410

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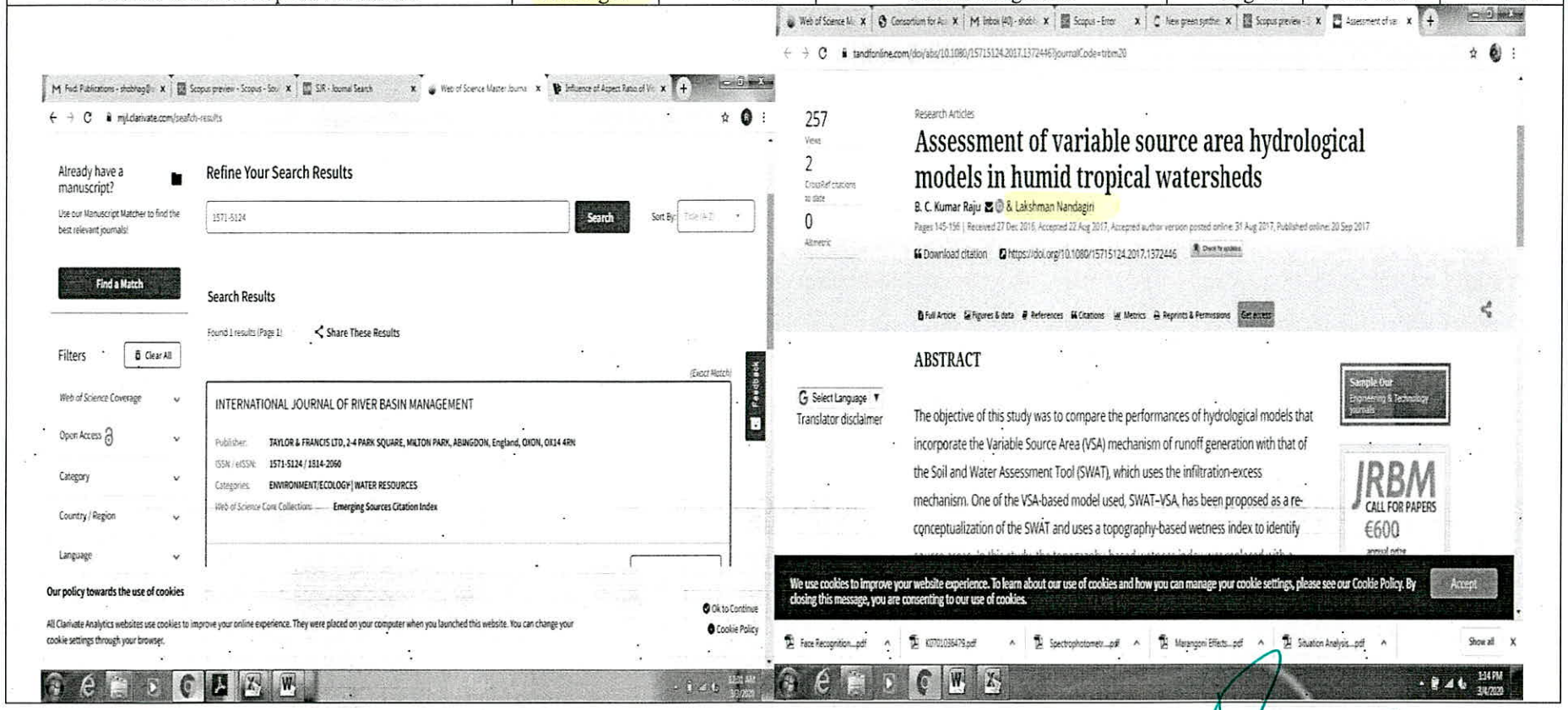
Journal Paper No -44

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Assessment of variable source area hydrological models in humid tropical watersheds	Lakshman Nandagiri	Civil	International Journal of River Basin Management	Aug-17	1571-5124	WOS



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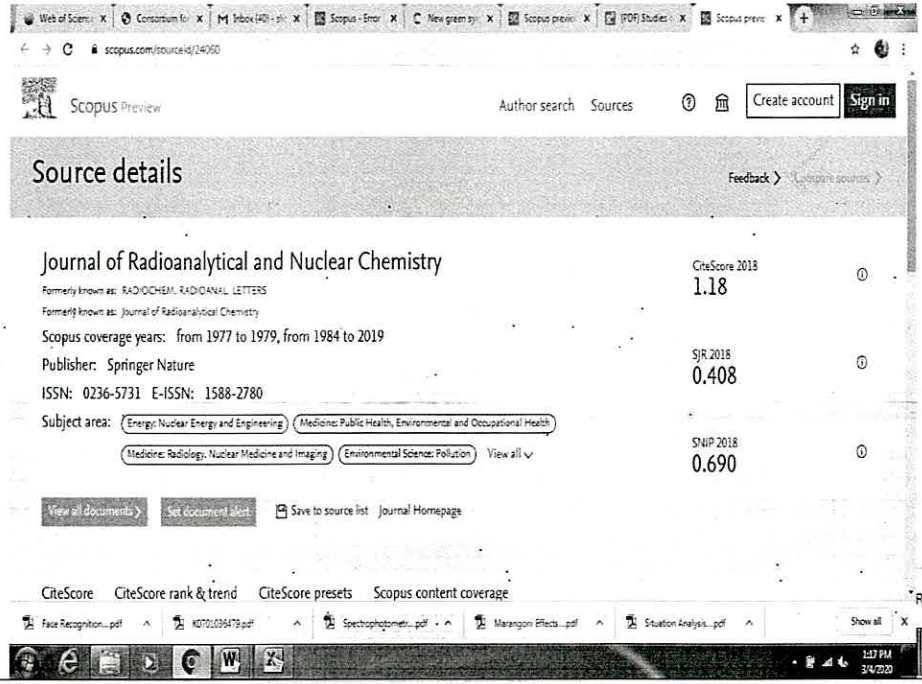
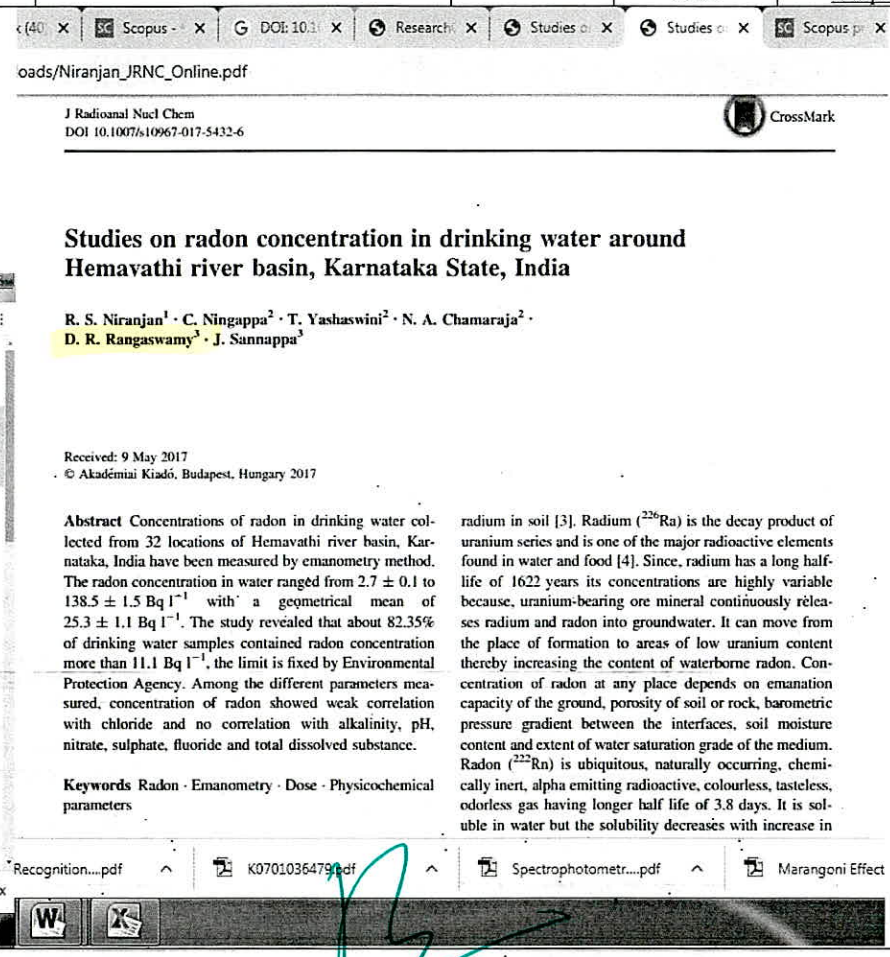
Journal Paper No -45

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Studies on radon concentration in drinking water around Hemavathi river basin, Karnataka State, India	Rangaswamy DR	Physics	J Radioanal Nucl Chem	Aug-17	0236-5731	Scopus





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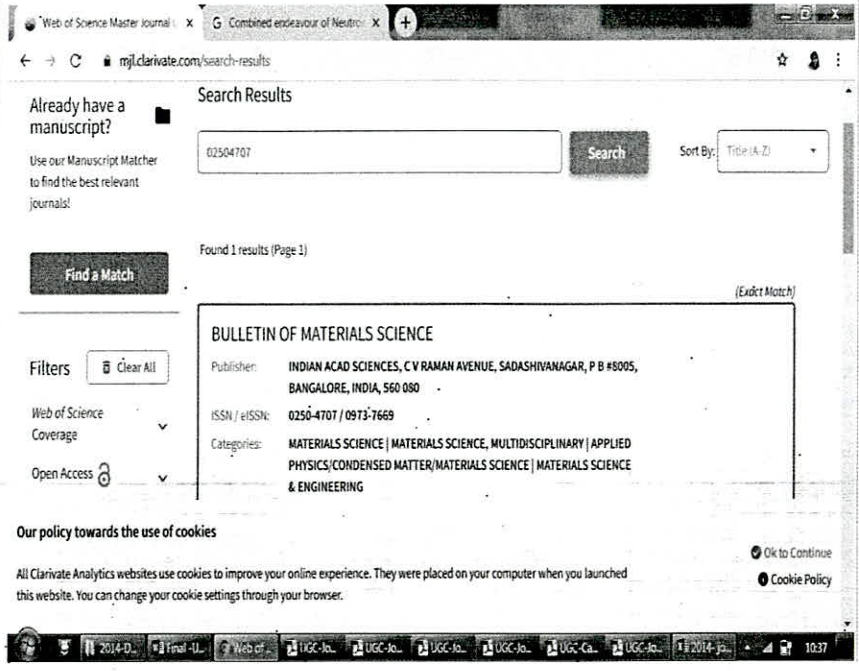
Journal Paper No -46

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Silver lead borate glasses doped with europium ions for phosphors application applications	K. Keshavamurthy and B. Eraiah	Physics	Bulletin of Materials Science	Aug-17	2504707	WOS



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DOI 10.1007/s12034-017-1411-3

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Silver lead borate glasses doped with europium ions for phosphors applications

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Abstract. Europium (Eu^{3+}) doped silver lead borate glasses with the composition of $x(Eu_2O_3)+(1-x)Ag_2O-29PbO-70B_2O_3$ ($x = 0$, 0.1, 0.2, 0.3, 0.4 and 0.5 mol%) have been successfully prepared by conventional melt quenching method. Thermal, structural and luminescence properties have been studied using thermograms, transmittance, excitation and emission spectra. From the differential scanning calorimetry studies, the glass transition temperatures (T_g) have been investigated and their values are ranging from 449 to 455°C. The investigation of Fourier transformer infrared spectra shows the presence of boron atoms in both BO_3 and BO_4 units in the glass network. In addition, it was found that new structural groups were present, such as boroxyl rings, pyro and dipenta-borate. Photoluminescence spectroscopy was used to examine down conversion emission under 394 nm excitation, which exhibits five emission bands centred at 577, 590, 612, 650 and 697 nm corresponding to $^5D_0 \rightarrow {}^7F_0$, $^5D_0 \rightarrow {}^7F_1$, $^5D_0 \rightarrow {}^7F_2$, $^5D_0 \rightarrow {}^7F_3$ and $^5D_0 \rightarrow {}^7F_4$ transitions of Eu^{3+} ions, respectively. The Commission International de l'Eclairage France 1931 chromaticity coordinates estimated from the emission spectra; it was shown that a 0.5 mol% Eu_2O_3 doped glass is quite suitable for efficient red phosphors application.

Keywords. Lead borate; DSC; FTIR; photoluminescence.

1. Introduction

In recent years, there is an emerging research that focuses on the rare earth (RE) doped oxide glasses due to their potential applications in various fields such as solid-state laser, optical amplifier, display and photo-electronic devices [1,2]. Among the RE ions, trivalent europium (Eu^{3+}) is considered as the most favourable element because of its narrow emission band producing monochromatic light, a long radiative lifetime [3] and the Eu^{3+} ions doped glasses show interesting emission spectra under near UV excitation. The visible luminescence of the Eu^{3+} ions doped glasses mainly consists of two eminent intense peaks in the orange (590 nm; $^5D_0 \rightarrow {}^7F_1$ transition) and in the red (615 nm; $^5D_0 \rightarrow {}^7F_2$ transition) wavelength regions [4]. The red wavelength region is the hypersensitive transition and strongly influenced by the environment around the ions, these kinds of Eu^{3+} doped glasses find wide range of applications in the field of an efficient red phosphor in particularly designing mercury-fluorescent lamps, LEDs and plasma displays. Glasses containing silver have been technologically interesting materials for solid-state batteries and electrochemical devices because of their valuable optical properties and high value of ionic conductivity [5]. Lead borate glasses are a research interest, owing to their structural peculiarities. The addition of PbO into the borate network brings modification of boroxyl rings and formation of complex groups with one or two four-fold co-ordinated boron atoms [6]. Lead borate glasses have several applications including radiation shields, optical and thermal properties [7,8]. Moreover, borate glasses having high phonon energies, which can be reduced by the addition of PbO into the borate network makes a reduction in non-radiative loss; thereby causing an enhancement in the luminescence efficiency [9].

In our previous work, we reported that the addition of (Eu^{3+}) ions into the silver lead borate glass matrix produces structural modification in the glass network, which leads to significant changes in the optical properties of the glass system [10]. In the present research, the authors intend to study the luminescence properties of the studied glasses through photoluminescence (PL) spectroscopy. The luminescence colour of the glass system excited at 394 nm has been demonstrated by the Commission International de l'Eclairage France (CIE) 1931 chromaticity diagram. We also studied the thermal and structural properties through differential scanning calorimetry (DSC) and Fourier transformer infrared (FTIR) spectroscopy, respectively.

2. Experimental

The raw matgrials of reagent grade chemicals H_3BO_3, PbO, Ag_2O and Eu_2O_3 were used to synthesize the glass samples by conventional melt-quenching method with the composition of

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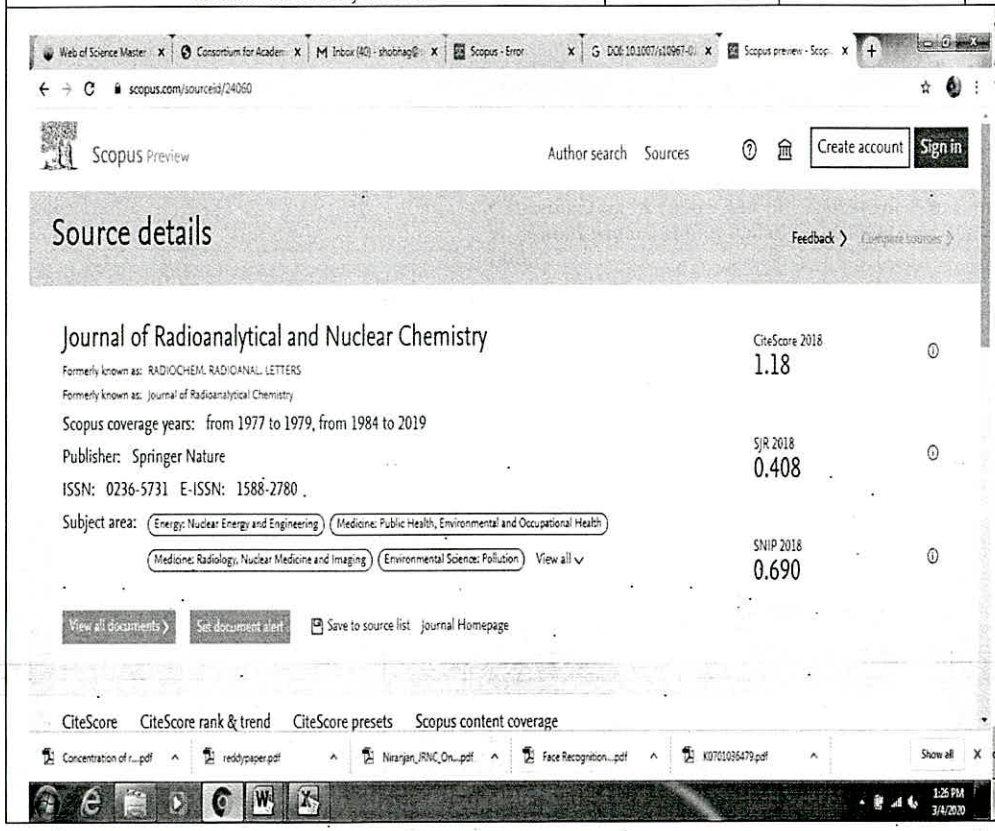
Journal Paper No -47

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Concentration of radon and physicochemical parameters in ground water around Kolar Gold Fields, Karnataka State, India.	Rangaswamy DR	Physics	J Radioanal Nucl Chem	Sep-17	0236-5731	Scopus



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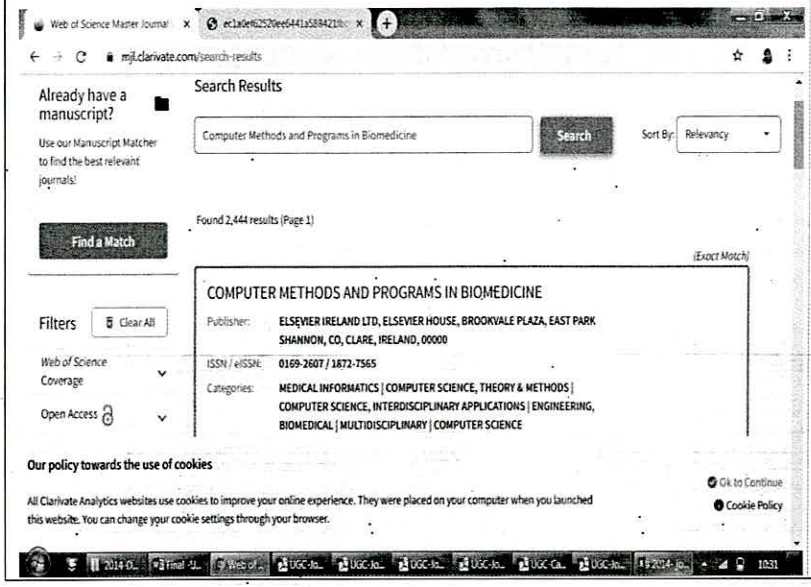
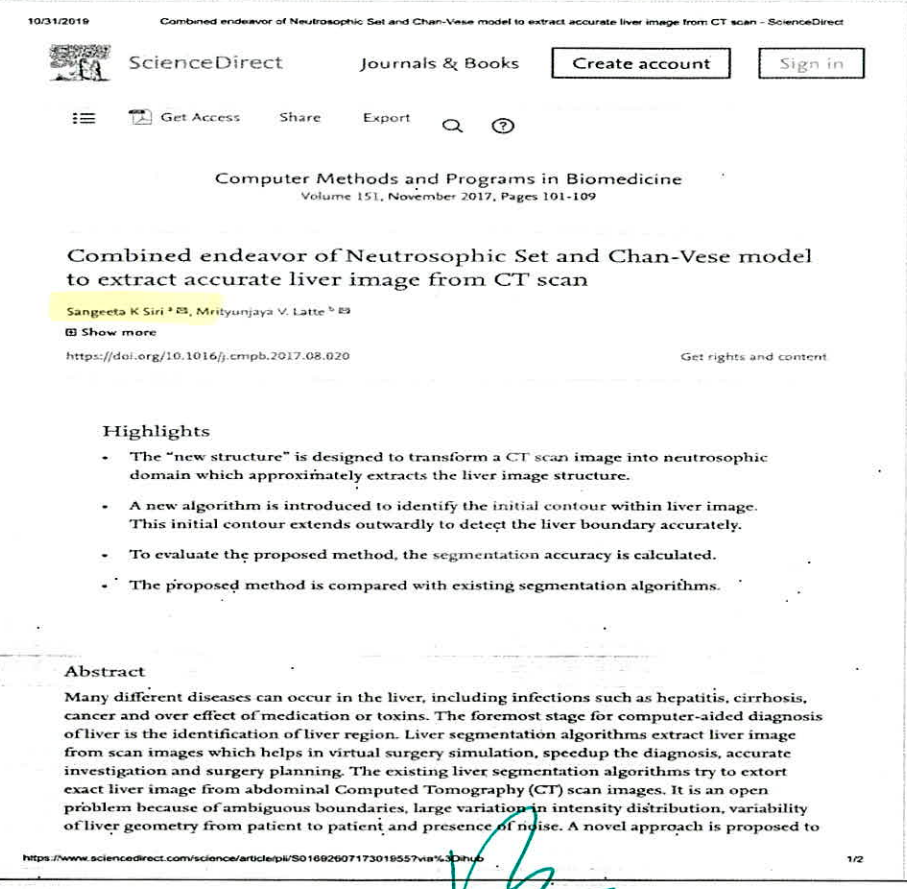
Journal Paper No -48

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Combined endeavour of Neutrosophic set and chan vese model to extract accurate liver image from Ct Scan	Sangeeta K Siri	EC	Computer Methods and Programs in Biomedicine	Nov-17	01692607	Scopus





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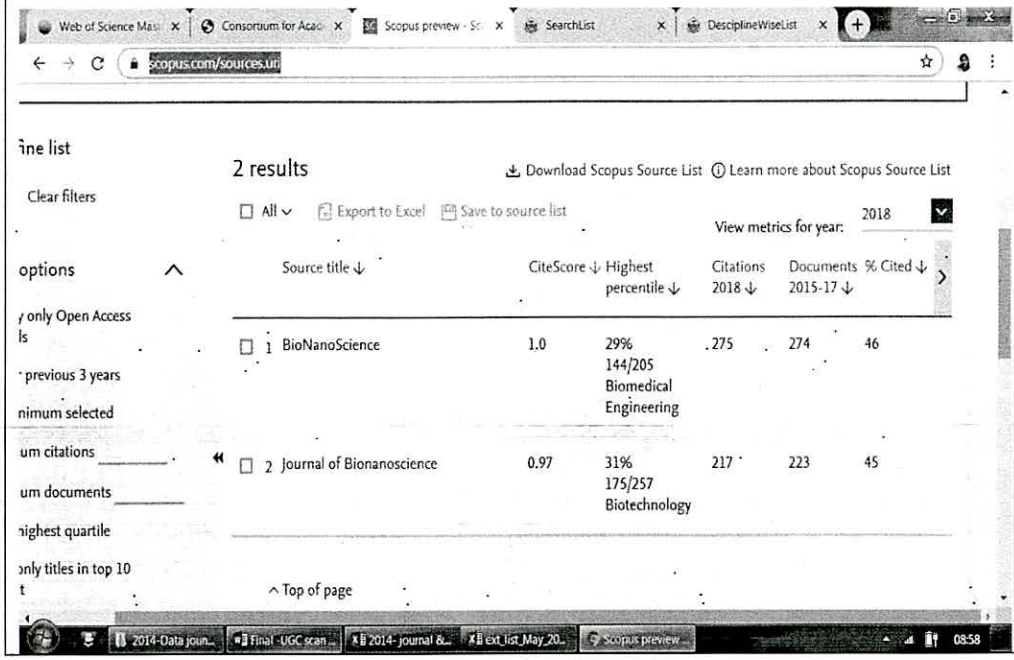
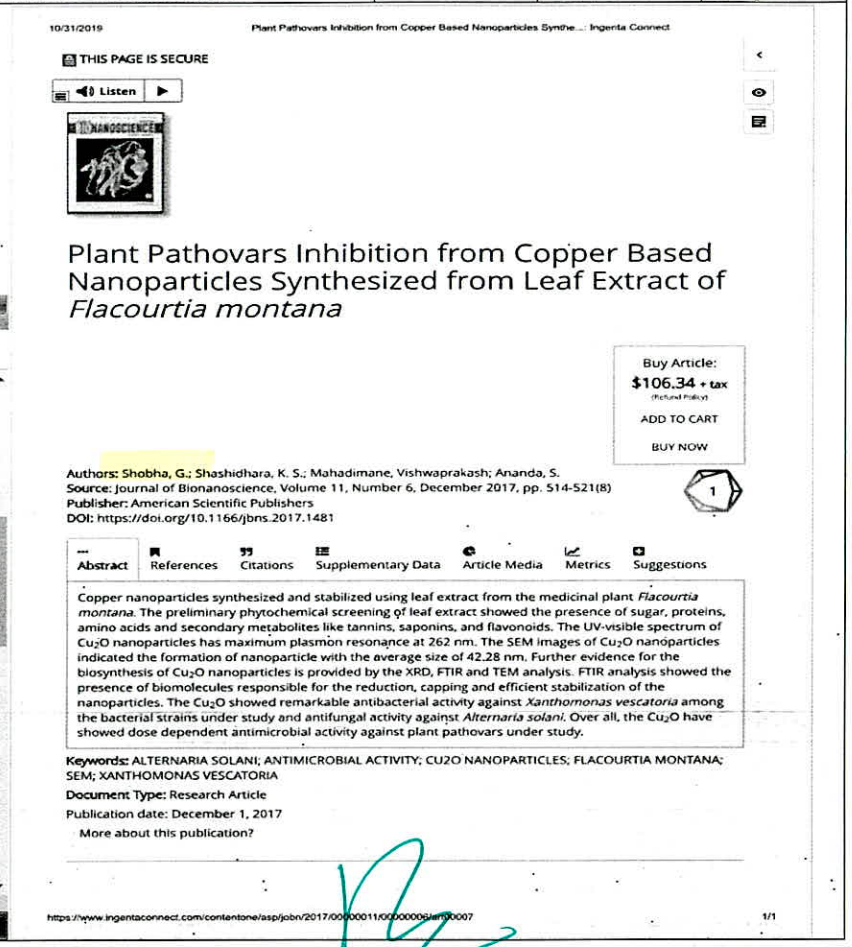
Journal Paper No -49

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Pathovars Inhibition From Copper Based Nanoparticles Synthesized From Leaf Extract Of Flacourtia Montana	Shobha G	BT	Journal of Bionanoscience	Dec-17	15577910	Scopus





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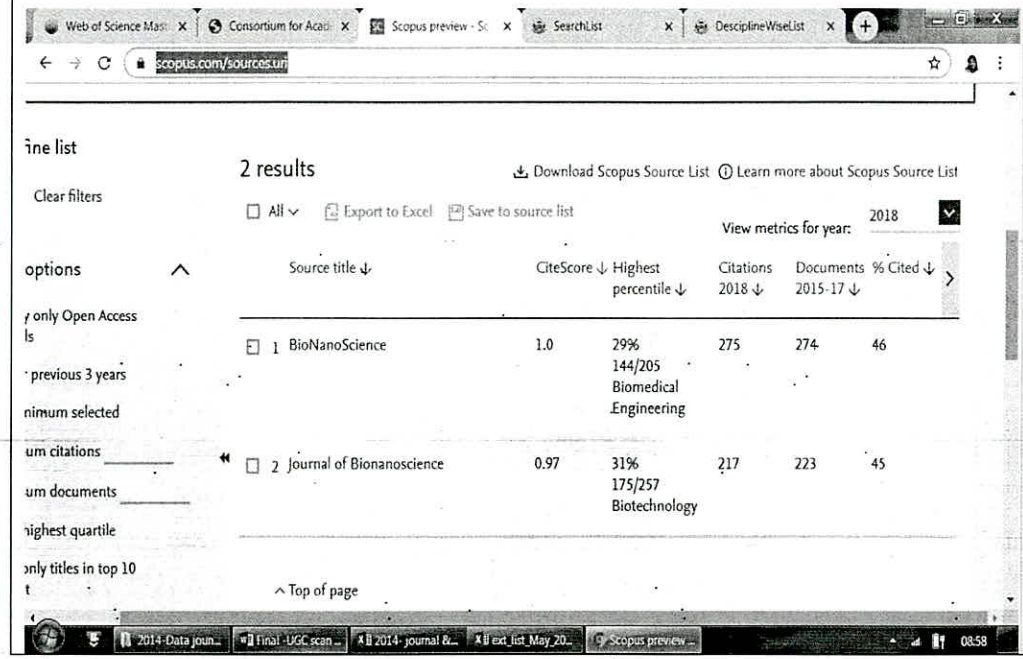
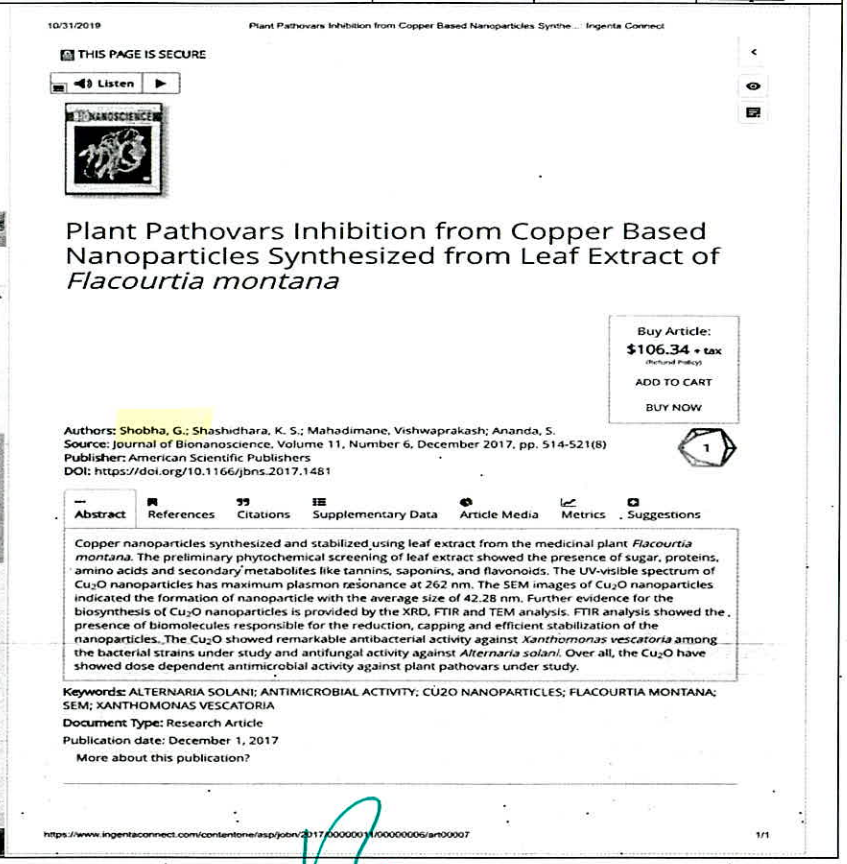
Journal Paper No -50

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Pathovars Inhibition From Copper Based Nanoparticles Synthesized From Leaf Extract Of Flacourtia Montana	Shobha G	BT	Journal of Bionanoscience	Dec-17	15577910	Scopus





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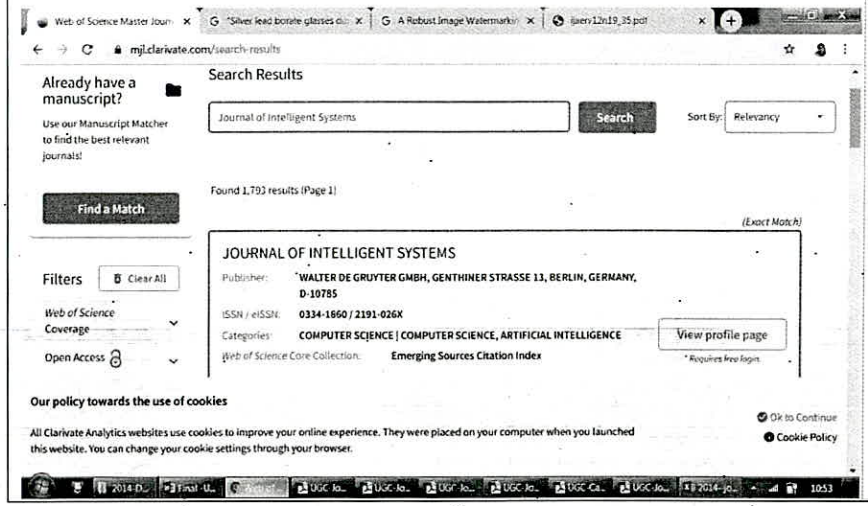
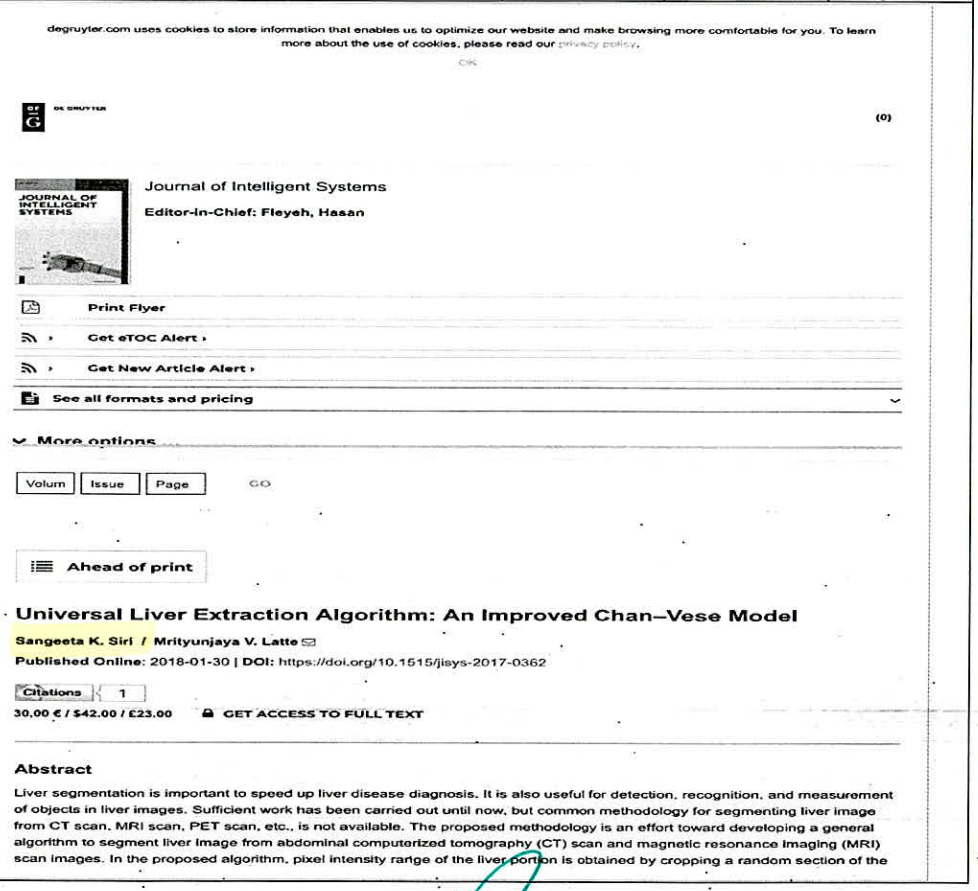
Journal Paper No -51

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Universal liver exraction algorithm: An improved chan-vese model	Sangeeta K Siri	EC	Journal of Intelligent Systems	Jan-18	03341860	Scopus





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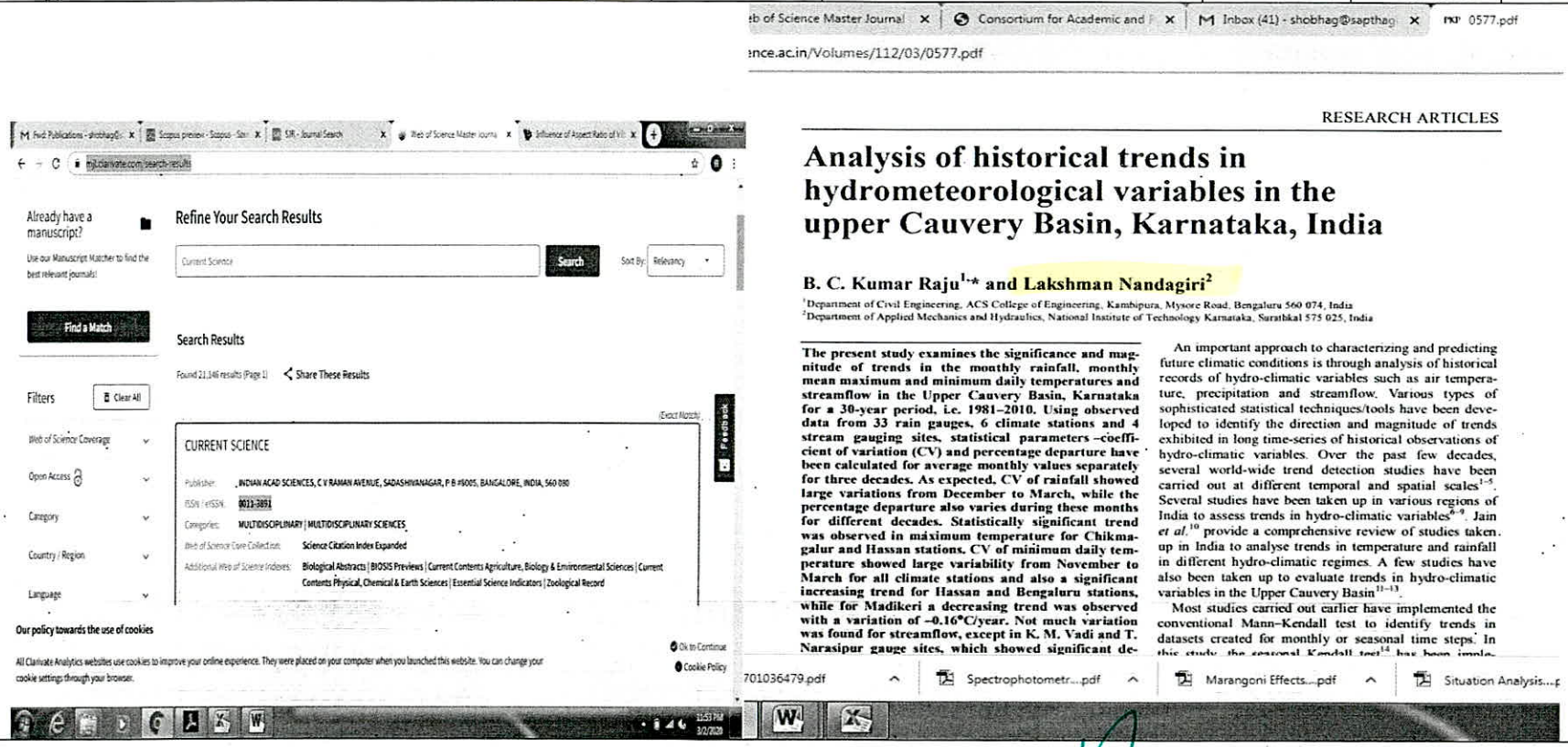
Journal Paper No -52

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Analysis of historical trends in hydrometeorological variables in the upper Cauvery Basin, Karnataka, India	Lakshman Nandagiri	Civil	Current Science	Feb-17	727504	WOS



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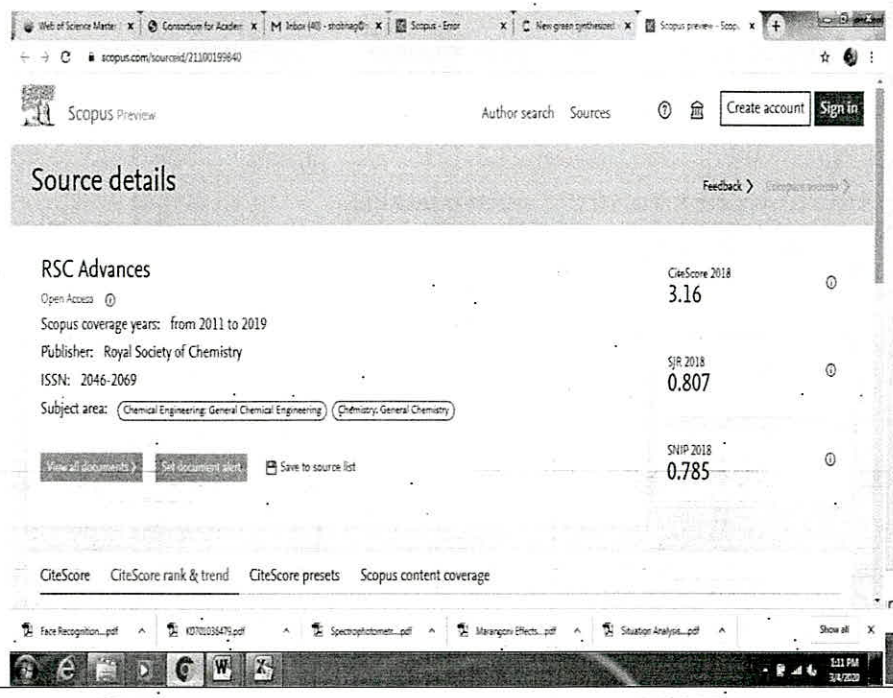
Journal Paper No -53

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
New green synthesized reduced graphene oxide–ZrO2 composite as high performance photocatalyst under sunlight	K. Gurushantha	Chemistry	RSC Advances	Feb-17	20462069	Scopus



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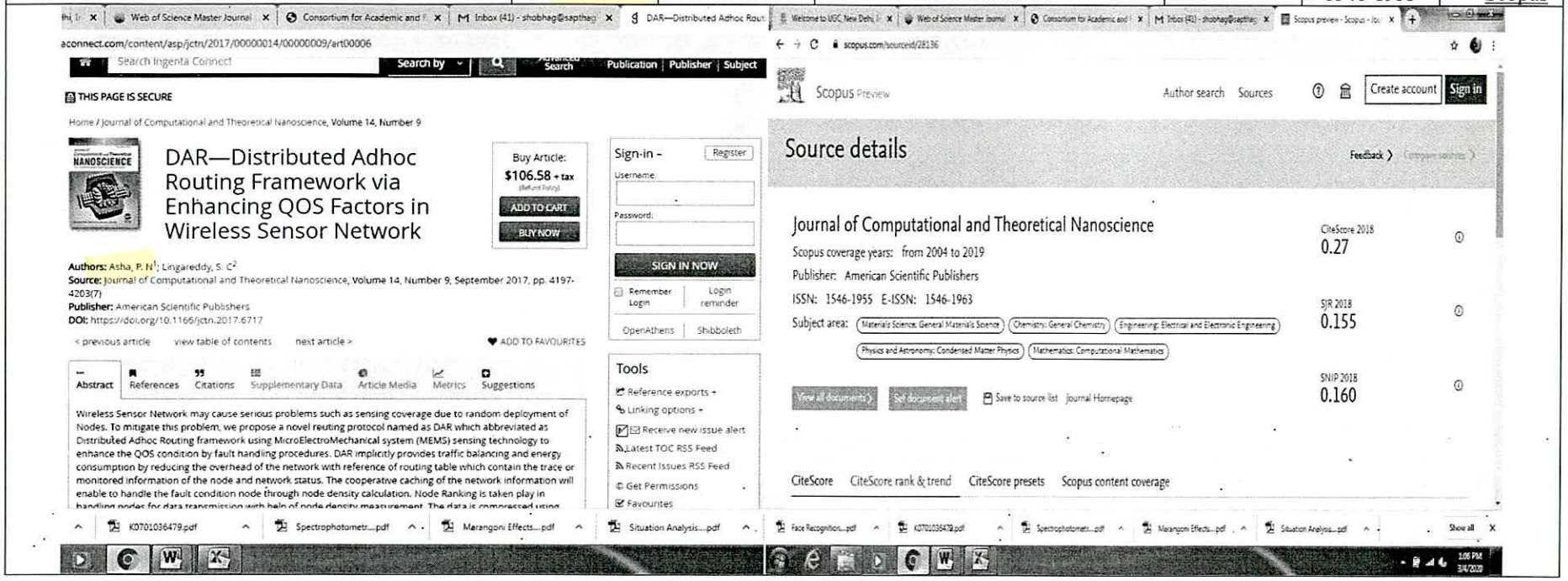
Journal Paper No -54

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
DAR- Distributed Adhoc Routing framework via Enhancing QOS factors in wirelessSensorNetwork	Asha P N	ISE	International Journal of Computational and theoretical Nanosciences	Feb-17	1546-1955	Scopus



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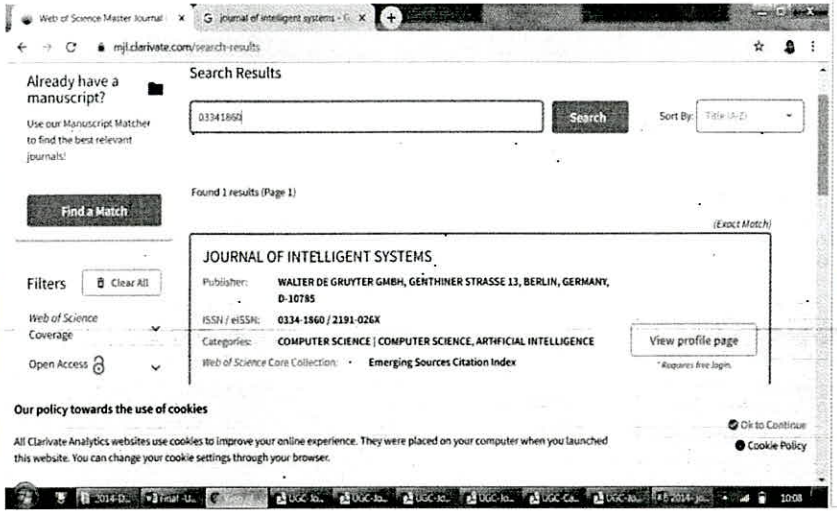
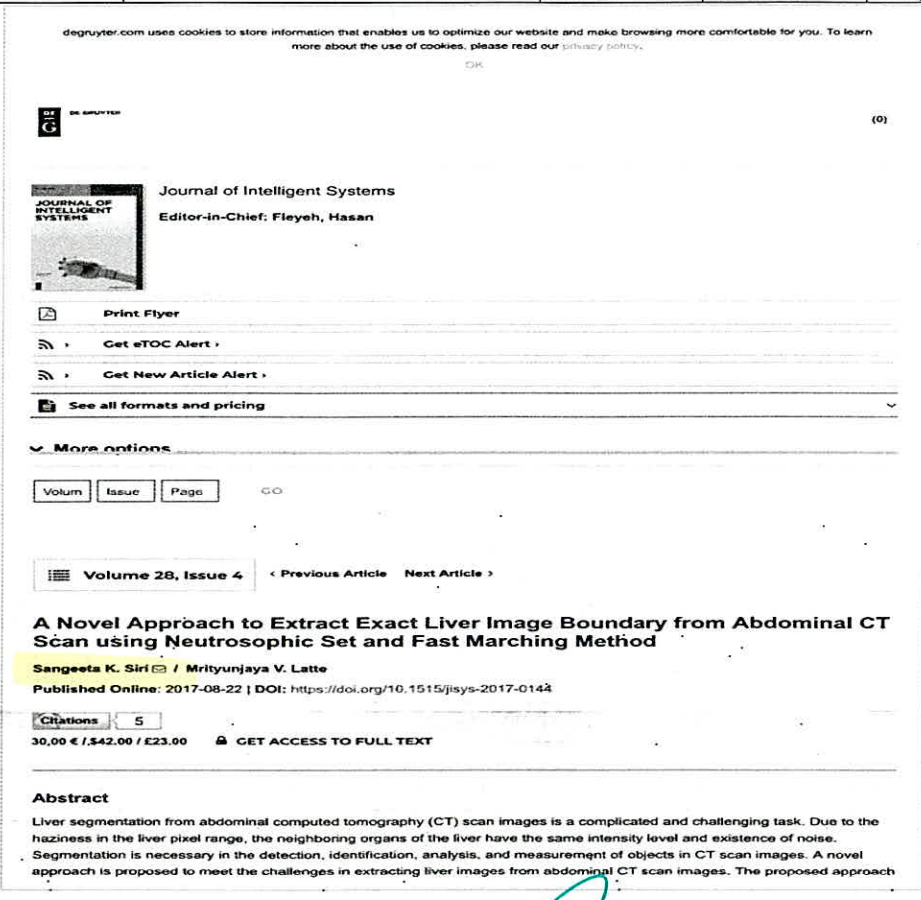
Journal Paper No -55

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
A novel approach tom extract liver boundary fron CT scan using neutrosophic set and fast marching method	Sangeeta K Siri	EC	Journal of Intelligent Systems	Jan-17	3341860	Scopus





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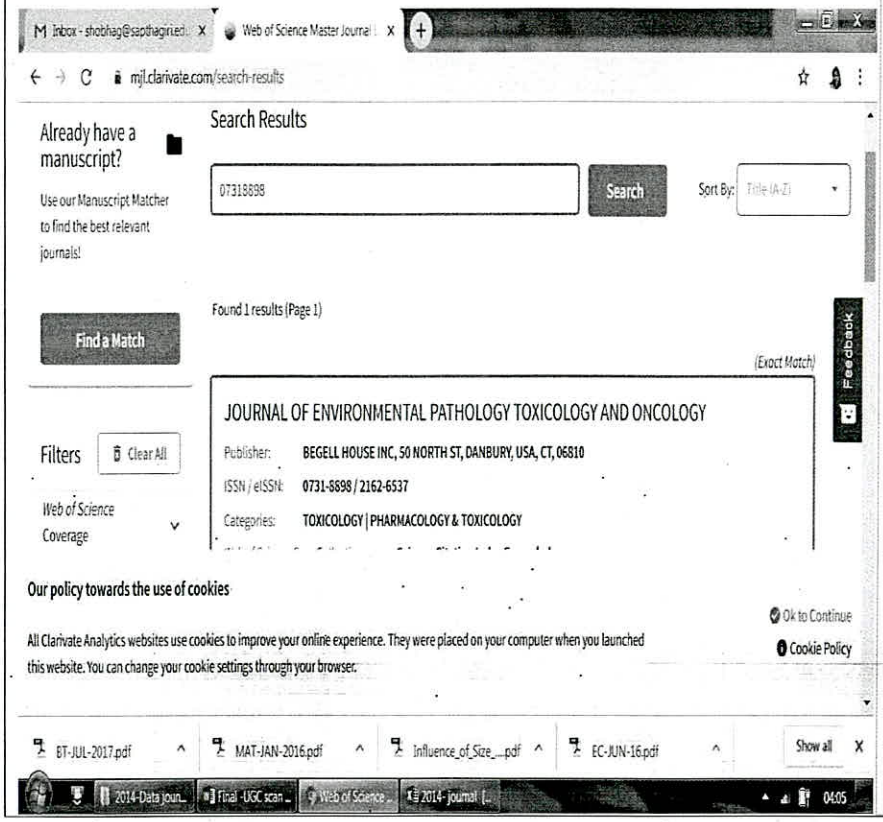
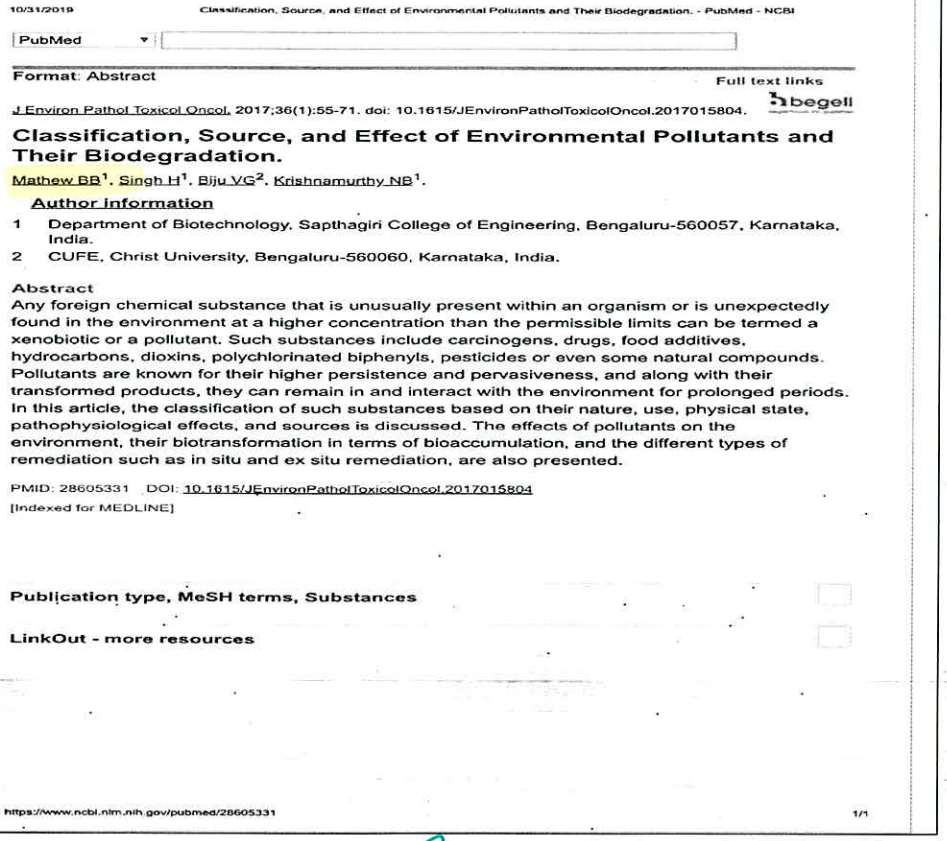
Journal Paper No -56

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Classification, source and effect of environmental pollutants and its biodegradation.	Blessy Baby Mathew	BT	Journal of Environmental Pathology, Toxicology and Oncology.	Jan-17	7318898	WOS





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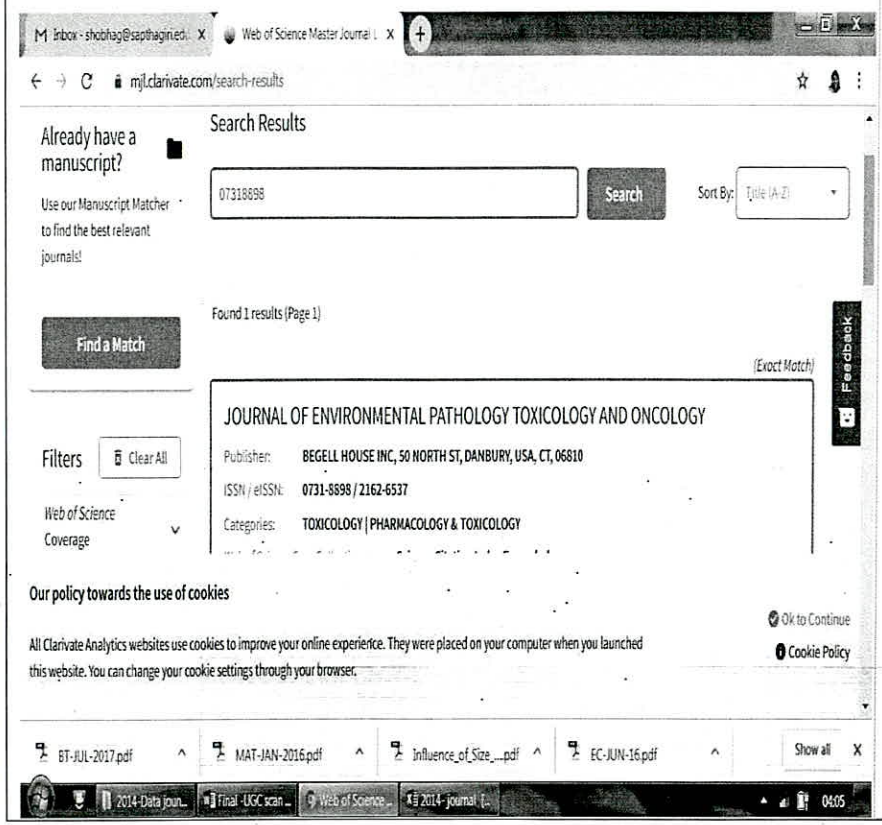
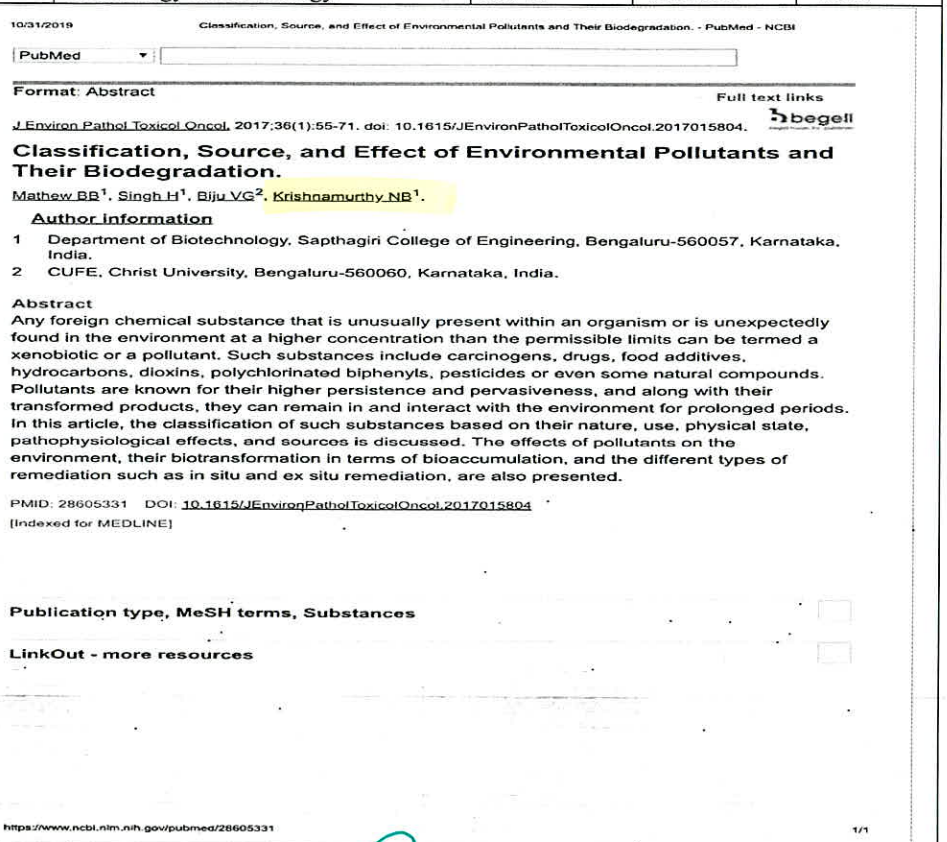
Journal Paper No -57

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
Classification, source and effect of environmental pollutants and its biodegradation.	Krishana Murthy	BT	Journal of Environmental Pathology, Toxicology and Oncology.	Jan-17	7318898	WOS





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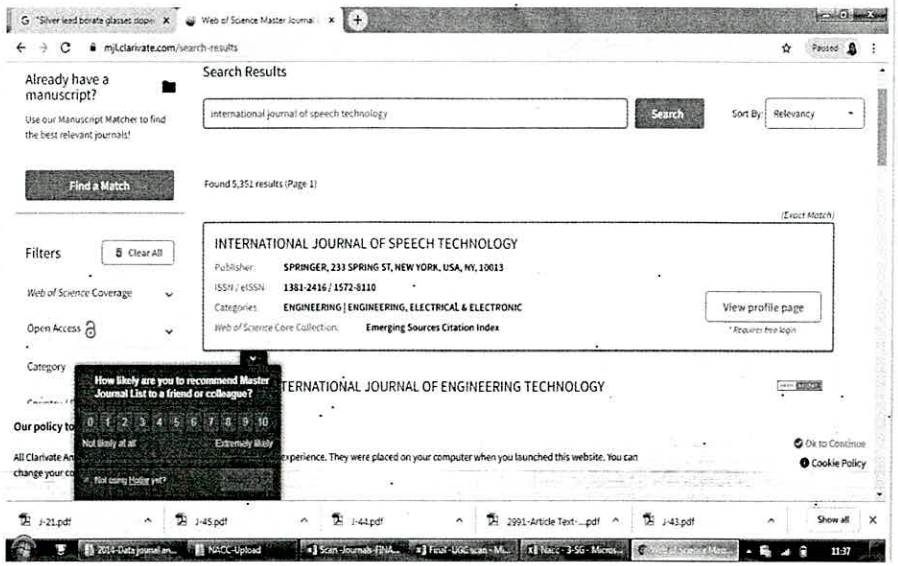
Journal Paper No -58

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Index
A spoken query system for the agricultural commodity prices and weather information access in Kannada language	Thimmaraja Yadava G	EC	Journal of Intelligent Systems	Sep-17	03341860	Scopus



10/31/2019 A spoken query system for the agricultural commodity prices and weather information access in Kann

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A spoken query system for the agricultural commodity prices and weather information access in Kannada language

International Journal of Speech Technology

September 2017, Volume 20, Issue 3, pp 635–644 | Cite as

- Thimmaraja G. Yadava (1) Email author (thimrajyadav@gmail.com)
- H. S. Jayanna (2)

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Article
First Online: 26 June 2017

Abstract

In this paper, a spoken query system is demonstrated which can be used to access the latest agricultural commodity prices and weather information in Kannada language using mobile phone. The spoken query system consists of Automatic Speech Recognition (ASR) models; Interactive Voice Response System (IVRS) call flow, Agricultural Marketing Network (AGMARKNET) and India Meteorological Department (IMD) databases. The ASR models are developed by using the Kaldi speech recognition toolkit. The task specific speech data is collected from the different dialect regions of Karnataka (a state in India speaks Kannada language) to develop ASR models. The web crawler is used to get the commodity price and weather information from AGMARKNET and IMD websites. The postgresql database management system is used to manage the crawled data. The 80 and 20% of validated speech data is used for system training and testing respectively. The accuracy and Word Error Rate (WER) of ASR models are highlighted and end to end spoken query system is developed for Kannada language.

Keywords

Kaldi Automatic speech recognition (ASR)
Interactive voice response system (IVRS) Word error rate (WER)

https://link.springer.com/article/10.1007/s10772-017-9428-y

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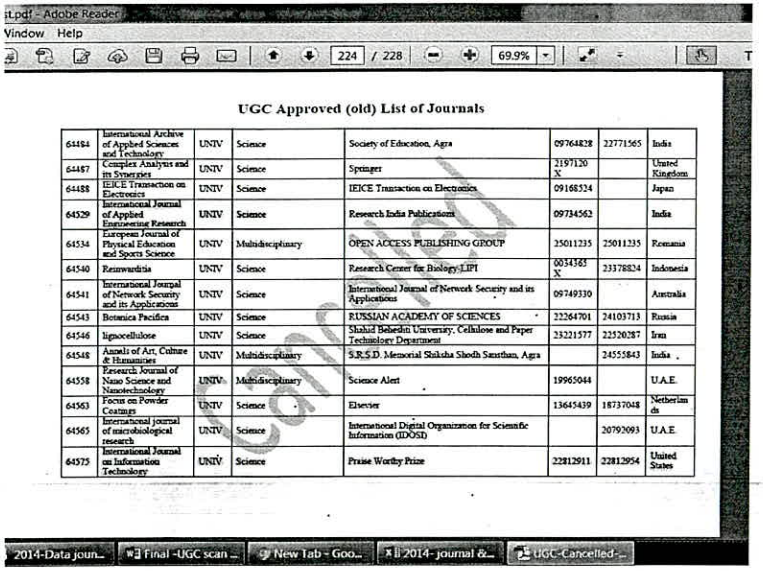

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A Robust Image Watermarking Technique using DTCWT and PCA

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Abstract

The dual-tree complex wavelet transform (DTCWT) is a relatively recent enhancement to the discrete wavelet transform (DWT), with beneficial properties such as shift invariant, good directionality, perfect reconstruction. These properties are well utilized to obtain improved robustness and perceptibility. Principle component analysis is used as a predictive model and is an excellent technique for inserting the watermark in the host image. The watermark energy is distributed in the principle component of DTCWT sub bands in order to improve robustness and perceptibility of watermarking algorithm. Performance parameters are evaluated. PSNR is 59 db and correlation coefficient is 1. The algorithm is resistant to geometrical attacks.

Keywords: DTCWT, PCA, 2D signal spectrum, 2D DWT, Digital Watermarking.

INTRODUCTION

Creating a digital copy, transmitting and distributing have become a daily routine of multimedia technology in internet era. Digital image watermarking provides copyright protection, by hiding appropriate ownership information in digital images. This ownership information may be in the form of logo or called as 'watermark'. The image formed after hiding 'watermark' in original image is called 'watermarked image'. There are four essential parameters [3], which are commonly used to determine quality of watermarking scheme. They are robustness, perceptibility, payload, and security.

Robustness is a measure of immunity of watermark, against intentional attacks like image processing attack or geometrical attack, like compression, filtering, rotation, scaling, [3] resizing, cropping etc. Imperceptibility means quality of host image should not be destroyed by presence of watermark. Payload is the number of bits to be embedded in cover image. It is called 'watermark capacity'. Security is ability to secure and resolving the rightful ownership. The effective attack handling is essentially required during testing of image watermarking techniques.

RELATED WORK

There has been a drastic increase in the research of watermarking. To develop an efficient watermark algorithm literature survey involves extensive study of journals, research articles and through light on this research.

Marzieh Amini et.al [1] proposes watermark algorithm using DWT and principle component analysis. The robustness of the algorithm is improved compared to the previous work. Baolong et.al [4] developed a robust watermark algorithm using DTCWT and mean quantization technique to enhance embedding capacity to 1024 bits and robustness against all attacks and also achieves PSNR 40 to 42db. Koritala Nagavardhani [5] proposes DWT and block based PCA watermarking algorithm which improves the bit error rate and also robust against all geometric attacks. Ho Anthony T.S. [6] et.al proposes a system for an authentication application using histogram and fast Hadamard transform to achieve correlation factor of 0.96.

The paper is organized as follows: Section 1 introduction, section 2 explains the DT-CWT, PCA and watermarking technique. Section 3 experimental results. Section 4 conclusion and 5 is the references.

Dual Tree Complex Wavelet Transform (DTCWT)

The standard DWT is a very powerful tool for many signal processing applications. But it suffers from three major limitations like shift sensitivity, means shift in the input leads to large [2], changes in the coefficients of the filter. Poor directivity example inability to distinguish between +45° and -45° spectral features. Absence of phase information. These problems can be solved by DTCWT [2]. The DTCWT for 2-D image is obtained by separate filtering along rows and then columns. However, if row and column filters both suppress negative frequencies, then only the first quadrant of 2-D signal spectrum is obtained. The most computationally efficient way to achieve a pair of conjugate filters is to maintain separate imaginary operator $j1$ and $j2$ for row and column processing as in Fig. 1 The input image X is

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