# SOUVENIR

## International Conference on Biological and Environmental Sciences

### Organised by



### Indian Academicians and Researchers Association

### **In Association With**



Dr. KEN Institute of Academic Development and Promotion, Thailand



# **ABOUT IARA**

Indian Academicians and Researchers Association (IARA) is an educational and scientific research organization of Academicians, Research Scholars and practitioners responsible for sharing information about research activities, projects, and conferences to its members. IARA offers an excellent opportunity for networking with other members and exchange knowledge. It also takes immense pride in its services offerings to undergraduate and graduate students.Students are provided opportunities to develop and clarify their research interests and skills as part of their preparation to become faculty members and researcher. Visit our website www.iaraedu.com for more details.



### **ABOUT THE CONFERENCE**

Biologists are involved in protecting, managing and monitoring the existing resources of our land including: analysing soil, water and air for chemical pollution. They are finding ways to clean up pollution, identifying, recording and monitoring the plants and animals that share the land we use.

The Biological and Environmental Research (BER) supports scientific research and facilities to achieve a predictive understanding of complex biological, earth, and environmental systems with the aim of advancing the nation's energy and infrastructure security. This knowledge enables the reengineering of microbes and plants for energy and other applications. BER research also advances understanding of the dynamic processes needed to model the Earth system, including atmospheric, land masses, ocean, sea ice, and subsurface processes.

Over the last three decades, BER has transformed biological and Earth system science. BER research has made considerable advances in biology underpinning the production of biofuels and bioproducts from renewable biomass, spearheaded progress in genome sequencing and genomic science, and strengthened the predictive capabilities of • ecosystem and global scale models using the world's fastest computers. This conference provides opportunities for the different areas delegates to exchange new ideas and application experiences face to face, to establish business or research relations • and to find global partners for future collaboration. We hope that the conference results constituted significant contribution to the knowledge in these up to date scientific field.



### **CONFERENCE CONVENORS**



Dr. Tazyn Rahman Director IARA Research Solutions Pvt Ltd, India



Associate Professor Dr. Sanya Kenaphum Director, Research and Development Institute Rajabhat Maha Sarakham University, Thailand



### **INTERNATIONAL ADVISORY MEMBERS**

#### <u>Dr. Hamid Saremi</u>

President (Chancellor) Assrar Higher Education Institue (Deemed to be university), Mashhad-Iran

#### Prof. (Dr.) AlirezaHeidari

Professor, Faculty of Chemistry California South University, California, USA

#### Dr.Rosemary Ekechukwu

Associate Dean, Faculty of Education University of Port Harcourt Rivers State, Nigeria

#### **Prof. (Dr.) Elez Osmanovic** Director, Institute for Scientific Researchand Development Montenegro

<u>Nik Alif Amri Nik Hashim</u> Lecturer Faculty of Hospitality, Tourism and Wellness Universiti Malaysia Kelantan, Malaysia

#### <u>Dr. Mohan Lal Agarwal</u>

US Fulbright Fellow & Professor MENA College of Management (MCM) Dubai

#### Prof. (Dr.) Jose Vargas Hernandez

Research Professor University of Guadalajara, Jalisco, México

#### Dr. Maria-Ana Tupan

Professor University of Bucharest Romania

#### <u>Prof. (Dr.) Badar Alam Iqbal</u> Adjunct Professor

Monarch University Switzerland

#### <u>Dr. Anis Ali</u>

Assistant Professor College of Business Administration Prince SattamBin Abdulaziz University Saudi Arabia



#### <u>•Dr. Udin Udin</u>

- •Universitas Muhammadiyah Yogyakarta
- Indonesia

#### **Dr. Mai Ammar** Assistant Lecturer Egyptian Chinese University, Egypt

<u>Prof. Apriana Toding</u> Universitas Kristen Indonesia Paulus, South Sulawesi, Indonesia

#### <u>Dr. Md. Nehal Uddin</u>

Sr. Geological Expert Geotechnical and Material Laboratory, Dhaka, Bangladesh

### NATIONAL ADVISORY MEMBERS

#### Prof. Badiuddin Ahmed

Dean School of Commerce and Business Management MaulanaAzad Nationl Urdu University, Hyderabad

#### Dr. Aloysius Edward J.

Dean, Commerceand Management Kristu Jayanti College, Bengaluru

#### Dr. Gulabchand K Gupta

Principal Seva Sadan Collegeof Arts, Science& Commerce Ulhasnagar

#### Dr. Neetu Singh

HOD, Department of Biotechnology, Mewar Institute, Vasundhara Ghaziabad

#### Dr. Poonam Agrawal

Professor, PG Incharge, Department of Orthodontics & Dentofacial Orthopedics, School of DentalSciences, Sharda University

#### Dr. S. Venkateswara Rao

Professor Department of Physics JNTUH College of Engineering Kukatpally, Hyderabad

#### Prof. Dr. Rajendra Singh

Professor & Head Deptt.Of Community Medicine & Psychology Govt. SDJH Medical College & Hospital, Chandeswar, Azamgarh Prof. (Dr.) Sudhansu Ranjan Mohapatra

Dean Faculty of Law Sambalpur University, Sambalpur

#### Prof. (Dr.) Aftab Anwar Shaikh

Principal Poona College of Arts, Science and Commerce, Pune

#### <u>Dr. Ravikant Swami</u>

Director DME Management School Noida

#### Dr. Vandana SantoshGupta

Assistant Professor Department of Environmental Sciences B. K. Birla Collegeof Arts, Science and Commerce

#### Dr. (Mrs.) Tejovathi Gudipati

Professor Department of Biotechnology Vijayaraje Institute of Science and Management, Gwalior

#### Dr. Chandra Prakash Pokharna

Associate Professor Department of Chemistry S.R.K.P.Govt. P.G.College, Kishangarh-(Ajmer)Rajasthan

#### Dr. Vivekanand B. Jadhav

Assistant ProfessorDepartment of Chemistry Shri Muktanand College, Gangapur, Dist., Aurangabad



#### <u>Dr. Jyoti Dhanaji Kharade</u>

Associate Professor

Bharati Vidyapeeth's Institute of Management

and Information Technology

**Dr. Brijesh H. Joshi** Principal (In-charge) B. L. Parikh College of BBA Palanpur

Dr. Hiresh Luhar

Director VIVA Institute of Management & Research Thane

<u>Prof. (Dr.) Himanshu Pandey</u> Professor

Department of Mathematics and Statistics Gorakhpur University Gorakhpur

<u>Dr. Dhananjay Prabhakar Awasarikar</u> Professor

Suryadutta Institute, Pune

<u>Dr. Manoj P. K.</u> Associate Professor Cochin University of Science and Technology Cochin

**Dr. Indrajit Ghosal** Assistant Professor Amity Institute of Information Technology, AmityUniversity, Patna

<u>Girijakumari Sarangapani</u> Professor in Nursing Department of Nursing Sri Ramakrishna College of Nursing

**Dr. Amit R. Yaul** Assistant Professorand Head Department of Chemistry Narayanrao Kale Smruti Model College, Karanja (GH.), Dist., Wardha

<u>Dr Ashutosh Pandey</u> Assistant Professor Department of Mathematics Lovely Professional University Punjab <u>Dr. Vivekanand B. Jadhav</u>

Assistant ProfessorDepartment of Chemistry Shri Muktanand College, Gangapur, Dist., Aurangabad

**Dr.Kanwaldeep Singh** Assistant Professor & Head Department of Physics Guru Nanak College, Budhlada

**Dr. R. Balamurugan** Associate Professor School of Computer Science and Engineering VelloreInstitute of Technology, Vellore

<u>Dr. Praveen Bhatt</u> Professor Asia Pacific Institute of Information Technology Panipat

<u>Dr.Vishnu Narayan Mishra</u> Assistant Professor Department of Mathematics Sardar Vallabhbhai National Institute of Technology, Gujarat

<u>**Dr. Kamal Gulati</u>** Associate Professor Amity University, Noida</u>

#### Dr. N. Shanmugasundaram

Associate Professor, Department of EEE VELS Institute of Science Technology and Advanced Studies (VISTAS), Chennai

**Prof. G. Ganesan @ Subramanian** Assistant Professor, EEE E.G.S. PillayEngineering College (Autonomous) Nagapattinam

<u>Dr.M. Suganthy</u> Associate Professor Department of Silviculture Forest College &Research Institute, Mettupalayam

Dr. Satish M. Chavan Assistant Professor Chemistry Department RNC Arts, JDB Commerce& NSC ScienceCollege Nashik Road, Nashik

<u>Dr.V. Ananthaswamy</u> Assistant ProfessorDepartment of Mathematics The MaduraCollege, Madurai, Tamil Nadu



#### FLAVONOIDS CONTENT AND ANTIOXIDANT ACTIVITY OF TARAXACUM SP. 1 VEGETAL ORGANS EXTRACTS FROM DIFFERENT ROMANIAN REGIONS

Maria-Virginia TANASA (ACRETEI), Ticuta NEGREANU-PIRJOL, Dan Razvan POPOVICIU, Bogdan-Stefan NEGREANU-PIRJOL, and Natalia ROSOIU

#### ASSESSMENT OF BIOCHEMICAL ANALYTES MODIFICATION IN DIABETIC 2 DISEASE AND RELATED DISORDERS

Stefana-Iuliana RADU (DRAGOI), Mihaela BASA, Ticuta NEGREANU-PIRJOL, Adina PETCU and Natalia ROSOIU

#### ETHANOBOTANICAL STUDY OF MEDICINAL PLANTS USED TO TREAT ASTHMA 3 AND COUGH IN YERCAUD HILLS, SALEM, TAMILNADU, INDIA

ArunS, Aravind. K, Ivo Romauld. S, Vivek Pazhamalai, Meenambiga. S. S and Rajakumari. K

#### CONSUMERS AWARENESS AND WILLINGNESS TOWARDS E-WASTE 4 MANAGEMENT PRACTICES IN VADODARA CITY

Ms. Monika Pedgaokar and Dr. Mona Mehta

#### PHYTOCHEMICAL ANALYSIS OF TEPHROSIA VILLOSA (L.) PERS.

Kishor C. Paikrao and Arvind S. Dhabe

# IMPACT OF MOBILE PHONE ELECTROMAGNETIC RADIATIONS ON SPERM6PARAMETERS AND HISTO-ARCHITECTURE OF RAT TESTIS AND PROTECTIVE6EFFECT OF POLLEN AND PROPOLIS IN THEM6

Deepti Chaudhary, Umesh Bharti and Neelima R. Kumar

#### FABRICATION OF EDIBLE FILM USING BETALAIN AGAINST PHARYNGITIS7

Meenambiga Setti Sudharsan, Nevesker BV, Hemachandran S, Ivo Romauld and Sowmya Hari

#### A HOLISTIC APPROACH TO PAEDIATRIC DENGUE MANAGEMENT: ANALYSING 8 THE BEDSIDE SEVERITY PREDICTION SCORE AND ITS SIGNIFICANCE IN DISEASE PROGNOSIS

Dr. Sirish Bhupathi

5



#### HUMAN RESOURCE PRACTICES AIMED AT ENHANCING LONG TERM 9 EMPLOYABILITY

Dr. Brototi Mistri

#### COLLECTION OF PRE-MONSOON GROUND WATER SOURCES FROM DARYAPUR 10 & ANJANGAON-SURJI TAHSILS AND INVISTIGATE THE PHYSICO-CHEMICAL PARAMETERS

N.W. Bagalkar, A.N. Varma, C.G. Patond, R. P. Dongare, S.R. Paturkar, G.A. Rane and N. V. Phirke

#### A STUDY TO IDENTIFY POST MENOPAUSAL WOMEN'S QUALITY OF LIFE AND 11 SYMPTOMS THROUGH MACHINE LEARNING

C. Nageswari and Dr. N. Meena

### ANTIBACTERIAL EVALUATION AND CHARACTERIZATION OF COMBINED 12 MILLETS

P. Brindha Devi

#### ROLE OF HRIDDHAUTI IN THE YOGIC MANAGEMENT OF PITTA DOSHA: A 13 CRITICAL STUDY

Lomash Prasad Sahu and Dr. Ranjana Mishra

#### ASSESSMENT OF COMPARISON ON THE EFFECT OF SIRAVYADHANA 14 (VENEPUNCTURE) AND JALAUKAVACHARANA (LEECH) ALONG WITH TRISHOTHADI LEPAM (OINTMENT) ON FOOT ULCERS

Dr. Devyani P Dasar

#### DNA GYRASE AS A POTENTIAL DRUG TARGET-A REVIEW

15

16

Rajakumari K, Balamugundhan M, Aravind K, S Ivo Romauld, P Vivek and SS Meenambiga

#### EXPLORING ESSENTIAL OIL EXTRACTION FOR DENTAL APPLICATION

S. Ivo Romauld, S. Saravanan Vikneshwer, P. Brindha devi, P. Vivek, K. Rajakumari, S.S. Meenambiga and S. Thiruvengadam



#### IN SILICO ANALYSIS OF NOVEL CHEMICAL COMPOUNDS: NATURALLY 17 INSPIRED PRIVILEGED STRUCTURES

Madhavi Kuchana

#### SUSTAINABLE BUSINESS PRACTICES AND CORPORATE SOCIAL 18 RESPONSIBILITY

Dr. Brototi Mistri and Dr. Manav Agrawal

#### HIGH-PERFORMANCE THIN LAYER CHROMATOGRAPHY ANALYSIS AND 19 FINGERPRINTING OF PHYTOCONSTITUENTS OF HELICTERES ISORALINN AND PSIDIUM GUAJAVA LINN

Miss Dhole Shital M., Mr. Swami Avinash B., Miss Rathod Reena S., Miss Kshirsagar Pradnya M. and Miss Kendre Jayshri M.



### FLAVONOIDS CONTENT AND ANTIOXIDANT ACTIVITY OF *TARAXACUM* SP. VEGETAL ORGANS EXTRACTS FROM DIFFERENT ROMANIAN REGIONS

#### Maria-Virginia TANASA (ACRETEI)<sup>1\*</sup>, Ticuta NEGREANU-PIRJOL<sup>2,4\*</sup>, Dan Razvan POPOVICIU<sup>3</sup>, Bogdan-Stefan NEGREANU-PIRJOL<sup>2</sup>, and Natalia ROSOIU<sup>1,4,5</sup>

<sup>1</sup> "Ovidius" University of Constanta, Doctoral School of Applied Sciences / Biology, Constanta, Constanta,

Romania

<sup>2</sup> "Ovidius" University of Constanta, Faculty of Pharmacy, Constanta, Romania
<sup>3</sup> "Ovidius" University of Constanta, Faculty of Natural Sciences and Agricultural Sciences, Constanta, Romania

<sup>4</sup> "Ovidius" University of Constanta, Faculty of Medicine, 1, University Alley, Constanta, Romania <sup>5</sup> Academy of Romanian Scientists, Biological Sciences Section, 3, Ilfov Street, 50044, Bucharest, Romania

#### ABSTRACT

In the last decades, a great deal of attention has been given to the potential health-promoting properties of flavonoids due to their discovered wide range of activities in the prevention of common diseases, including coronary heart disease, cancer, neurodegenerative and pulmonary disease, gastrointestinal and renal disorders. These effects came out to be related to the various biological or pharmacological activities of flavonoids, including antimicrobial, immunomodulatory or antithrombotic activities. Plants of the Taraxacum genus, popularly known as dandelions, are being used as an herbal remedy to prevent, manage, and even ameliorate such human disorders due to its wide range of phytochemicals whose biological activities are actively explored in various areas of human health - some of its constituents have antioxidant and anti-inflammatory activities. Dandelions or different parts of it, are widely used worldwide in a variety of foods. The bitter leaves are eaten as a vegetable and also, are used in the preparation of wines, beers and soft drinks. Ground roots are used as a substitute for coffee and the heads of young and unopened flowers can be used as capers. The present paper emphasizes the comparative content of flavonoids from vegetal organs of dandelion (Taraxacum officinale L.) collected from three different regions of Romania and evaluates the antioxidant potential of Taraxacum vegetal organs hydroalcoholic extracts. Mature vegetal product of Taraxacum sp. was collected in May 2022, from the eastern area of Transylvania, southern area of Dobrogea and from central plateau of Moldova, Romania. Dried vegetal materials (10 g) ground to a fine powder, were extracted in ethanol/water (70/30, v/v) and respectively (50/50, v/v), in a ratio of 1:10 (w/v), using the standard method of cold maceration, 14 days, followed by normal pressure filtration. The obtained hydroalcoholic extracts were analyzed by UV-Vis spectrophotometry to determine the total content of flavonoids. The total antioxidant capacity was quantified through photochemiluminescence method by comparison with the standard substance used for calibration, Trolox® as tocopherol analogue by ACL (Antioxidant Capacity of Lipid Soluble Substances) procedure using Photochem apparatus, Analytik Jena AG, Germany. Total flavonoids concentration was highest in ethanol extracts of the plant's collected from the Moldova region for all analized vegetal organs, Radix, Herba, Flower and Mix. Regarding total antioxidant capacity (TEAC), results obtained were variables, with increased values in 70/30, v/v ethanol extracts. The influence of climate and soils on Taraxacum plants from Dobrogea, Moldova and Transylvania areas, Romania, determined significantly different values of the concentration of bioactive principle analyzed and supports us for the continuation of studies on the content of bioactive principles and the therapeutic activity of this valuable plant product from the Romanian spontaneous flora.

Keywords: Taraxacum officinale, dandelion, flavonoids, hydroalcoholic extracts, antioxidant activity

= 1



#### ASSESSMENT OF BIOCHEMICAL ANALYTES MODIFICATION IN DIABETIC DISEASE AND RELATED DISORDERS

#### Stefana-Iuliana RADU (DRAGOI)<sup>1\*</sup>, Mihaela BASA<sup>2</sup>, Ticuta NEGREANU-PIRJOL<sup>3,4\*</sup>, Adina PETCU<sup>3</sup> and Natalia ROSOIU<sup>1,4</sup>

<sup>1</sup> "Ovidius" University of Constanta, Doctoral School of Applied Sciences / Biology, 58, Ion Voda Street,

900573, Constanta, Romania

<sup>2</sup> "Alexandru Gafencu" Military Emergency Hospital, 96, Mamaia Bvd., Constanta, 900590, Romania

<sup>3</sup> "Ovidius" University of Constanta, Faculty of Pharmacy, 6, Capitan Aviator Al. Serbanescu Street, Campus, Building C, 900470, Constanta, Romania

<sup>4</sup> Academy of Romanian Scientists, Biological Sciences Section, 3, Ilfov Street, 50044, Bucharest, Romania

#### ABSTRACT

Diabetes is characterized by hyperglycaemia and disorders of carbohydrate, fat and protein metabolism. It is associated with an absolute or relative deficiency in insulin secretion (diabetes mellitus 1 - DZ1) or with insulin resistance (diabetes mellitus 2 - DZ2). Diagnosis of diabetes mainly involves laboratory tests, which implies high quality testing in accordance with good laboratory practice. There is a wide range of tests that give us valuable information about the patient's glycaemic curve, nutritional status, insulin resistance, metabolites and lipid status. To analyse the results of analytes associated with carbohydrate metabolism and to determine the degree of dysfunction of the body in diabetic disease and related disorders. The study comprises 65 patients (38 women and 27 men, ages 43-82 years) grouped into 3 groups: patients with DZ1 (Type 1 diabetes) (n=, 27), patients with DZ2 (n=27) and non-diabetic patients (control, n=11) and was conducted over a period of 6 months, year 2022 in the Medical Analysis Laboratory of Medgidia Municipal Hospital, Constanta County, Romania, fulfilling the inclusion criteria and completing the study participation. The biochemical parameters studied were those specific to carbohydrate metabolism (Serum Glucose, Glycosylated Hemoglobin), lipid metabolism (Total Cholesterol, HDL, LDL, Triglycerides), renal profile (Urea, Creatinine, Uric Acid), inflammation marker (C-reactive Protein) and Potassium. Atherogenic Index (AI) was also used to predict the risk of atherosclerosis. Mean serum glucose values in DZ1 (276.96  $\pm$ 80.98) differed statistically significantly (p < 0.05) from mean glucose values in DZ2 (155.56 ± 53.90), but also in non-diabetic patients, mean glucose values (94.64  $\pm$  6.92) differed significantly. Thus for serum glucose there are significant differences between all groups. For the DZ1 study group, the mean values of HbA1C were: 10.68  $\pm$  1.93 which statistically significantly (p<0.05) different from the mean values of the DZ2 group  $(7.13 \pm 1.09)$  but also from the non-diabetic group  $(5.44 \pm 0.35)$ . Hypertriglyceridemia is present with a higher frequency in DZ1 patients than in DZ2, which implies that the risks of ischemic events are also higher in DZ1 patients. Cardiovascular disease is present in patients taken in the study, both in DZ1 and DZ2 patients (CKMB mean 17.48  $\pm$  9.80 in DZ1 patients and mean 21.07  $\pm$  16.76 in DZ2 patients). The studied parameters change their concentration with disease progression. They can detect complications early, which may increase longevity and quality of life of diabetic patients. Multiple cellular impairments, within metabolic abnormalities in early or advanced stages of diabetes mellitus are expressed by significant statistical correlations regarding the determined analyses.

Keywords: Type 1 diabetes, insulin, biochemical analytes, carbohydrate metabolism



### ETHANOBOTANICAL STUDY OF MEDICINAL PLANTS USED TO TREAT ASTHMA AND COUGH IN YERCAUD HILLS, SALEM, TAMILNADU, INDIA

#### ArunS, Aravind. K, Ivo Romauld. S, Vivek Pazhamalai<sup>\*</sup>, Meenambiga. S. S and Rajakumari. K Department of Bio-Engineering, School of Engineering,

Vels Institute of Science, Technology and Advanced Studies (VISTAS), Chennai, India

#### ABSTRACT

India, is medically and culturally varied nations in the world, has a long history of using herbal medicines, which is still appreciated today. The present study will show us the medicinal plants which have been used to cure asthma and cough which is found in Yercaud hills. There is a total of 13 species of plants from 8 different families is used to treat asthma and the sum of 9 species of plants from 6 different species is used to treat cough. The mode of formulation will differ according to each plant species which is discussed in this article. The different parts of plants are used to cure the disease such as leaf, seed, rhizome, root, bark, fruit and flower.



#### CONSUMERS AWARENESS AND WILLINGNESS TOWARDS E-WASTE MANAGEMENT PRACTICES IN VADODARA CITY

Ms. Monika Pedgaokar<sup>1</sup> and Dr. Mona Mehta<sup>2</sup>

Research Scholar<sup>1</sup> and Assistant Professor<sup>2</sup>, Department of Family and Community Resource Management, Faculty of Family and Community Sciences, Vadodara, the Maharaja Sayajirao University of Baroda, Vadodara, India

#### ABSTRACT

Advances in technology, particularly the development of electric and electronic appliances, are being made and provide a positive contribution to human life. However, a major concern today what do with electric and electronic appliances that can no longer be used or that are no longer needed. These are labelled as 'ewaste' as they need to be well-managed in order to ensure environmental sustainability. Sustainable e-waste management is essential to minimize the negative environmental and human health. It has been demonstrated that, in recent years, the amount of e-waste has been increasing three times faster than previously. E-waste as a broad and growing range of electronic devices range from large household devices such as refrigerators, air-conditions, microwaves, Toys, Printers, batteries, automatic dispensers, computers and telecommunications equipments, consumer electronic devices and solar panels, TVs, monitors and screens, LED bulbs and other lighting fixtures which have been discarded by their uses. E-waste releases harmful chemicals, such as lead, on burning, which adversely impacts human blood, kidney and the peripheral nervous system. When it is thrown in landfills, the chemicals seep in the air, ground and water, affecting both the land and sea animals. The present study aims to find out level of awareness and willingness to participate in e -waste management practices by consumers. The study comprised of 120 respondents through purposive sampling method wherein questionnaire will be selected as tool. The study would benefit the environment as it will help by reducing, reusing and recycling electronic devices and components, which will minimize the harmful impacts of e-waste. Through collaboration, education, technological advancements and global cooperation, businesses can cut emissions and save natural resources. The findings of present study will beneficial for consumers, students and e waste management companies to gain insight about responsible handling and recycling of electronic devices and components which will lead towards the Sustainable Development Goal 3 (Good health and Well-being), Goal 6 (Clean water and Sanitation), Goal 11 (Sustainable Cities and Communities), Goal 12 (Responsible Consumption and Production).

Keywords: E Waste Management, Awareness, Willingness, Practices, Consumers.



#### PHYTOCHEMICAL ANALYSIS OF TEPHROSIA VILLOSA (L.) PERS.

#### Kishor C. Paikrao<sup>1\*</sup> and Arvind S. Dhabe<sup>2</sup>

<sup>1</sup>Department of Botany, Chintamani College of Arts and Science, Gondpipri, Dist. Chandrapur. 442702 <sup>2</sup>Department of Botany, Dr. Babasaheb Ambedkar Marathwada University Aurangabad.431004

#### ABSTRACT

Present investigation was undertaken in order to analyse bioactive constituents present in Tephrosia villosa by using High Resolution- Liquid Chromatography-Mass Spectrometry (HR-LCMS). The study revealed the presence of secondary metabolites like alkaloid (Aconitine), Flavonoids(Quercetin, Mosloflavone), Coumarin (Samidin), chalcones (De-hydro-cyclo-xanthohumolhydrate), butenolide (Spiromesifen), cardenolide glycoside (diginatin), benzopyran (Piperochromanoic acid), and Phenolic compounds in the selected medicinal plants.

Keywords: Tephrosia, Alkaloid, Retinoids, Coumarin, Flavonoids, HR-LCMS.



#### IMPACT OF MOBILE PHONE ELECTROMAGNETIC RADIATIONS ON SPERM PARAMETERS AND HISTO-ARCHITECTURE OF RAT TESTIS AND PROTECTIVE EFFECT OF POLLEN AND PROPOLIS IN THEM

Deepti Chaudhary<sup>1\*</sup>, Umesh Bharti<sup>2</sup> and Neelima R. Kumar<sup>3</sup>

<sup>1</sup>Research Scholar, Department of Zoology, Panjab University, Chandigarh, India <sup>2</sup>Associate Professor, Department of Zoology, PGGCG, Sector-11, Chandigarh, India <sup>3</sup>Retired Professor, Department of Zoology, Panjab University, Chandigarh, India

#### ABSTRACT

Mobile phones are the reality of modern world and the emission of electromagnetic radiations by them is a fact acknowledged worldwide and the effect of EMR on humans is concerning. Findings from literature suggest that EMR from mobile phones and various other sources affect male fertility by causing negative impact on histo-architecture of testis and sperm parameters. Bee pollen and propolis are one of the natural products renowned for their medicinal properties. This study investigated the ameliorative effect of bee pollen and propolis on the adverse changes caused by EMR from mobile phone in the form of decrease in sperm count and motility and histo-distortion in testis and the observations revealed that pollen and propolis showed protection against EMR by mitigating the negative impacts caused by them.

Keywords: fertility, oxidative stress, histo-architecture, exposure, sperm parameters



#### FABRICATION OF EDIBLE FILM USING BETALAIN AGAINST PHARYNGITIS

Meenambiga Setti Sudharsan\*, Nevesker BV, Hemachandran S, Ivo Romauld and Sowmya Hari Department of Bio-Engineering, School of Engineering, Vels Institute of Science, Technology and Advanced Studies (VISTAS), Chennai, India

#### ABSTRACT

Food-grade additives and edible biopolymers are used to create edible films and coatings. Plasticizing agents and other agents are added to the biopolymers that create the films to change the edible films' physical characteristics or additional functions. Such films are especially well suited for food and packaging applications because of their renewability, degradability, and edibility. The effects of betalain, phenolic compounds from thyme, Alpinia officinarum, in combination with the properties of an edible film made of tapioca starch were investigated. dragon fruit, beets, cacti, Amaranthus, and other plants have a pigment family known as betalains. The potential health benefits of betalains, such as their anti-inflammatory, antibacterial, anticancer, and antioxidant characteristics, have attracted attention. It's commonly used to treat pharyngitis because of its possible health benefits. Thyme and Alpinia officinarum known for their soothing and anti-inflammatory properties, along with betalains, may provide an effective treatment for pharyngitis. Pharyngitis frequently includes symptoms like painful throat, trouble swallowing, and enlarged tonsils and is typically brought on by infections that are either bacterial or viral. The study aimed to ascertain betalains' ability to treat pharyngitis.

**Keywords:** Edible film, betalains, Thyme, Alpina officinarum, Pharyngitis, Anti-Microbial, Anti-Inflammatory



#### A HOLISTIC APPROACH TO PAEDIATRIC DENGUE MANAGEMENT: ANALYSING THE BEDSIDE SEVERITY PREDICTION SCORE AND ITS SIGNIFICANCE IN DISEASE PROGNOSIS

#### Dr. Sirish Bhupathi

Assistant Professor, Department of Paediatric, Mamata Institute of Medical Sciences, Bachupally, Hyderabad, Telangana, India

#### ABSTRACT

Dengue fever, a prevalent arthropod-borne viral disease, poses a substantial health burden worldwide, particularly affecting paediatric populations. The unpredictable nature of the disease progression underscores the critical need for accurate severity prediction tools to facilitate timely clinical intervention and optimize patient outcomes. The "Bedside Severity Prediction Score" (BSPS) has emerged as a significant clinical tool in assessing the severity of dengue in children, amalgamating crucial clinical and laboratory parameters into a comprehensive scoring system. This review critically examines the development, validation, and potential implications of the BSPS in the context of paediatric dengue management. Through a comprehensive analysis of existing literature and studies, the review elucidates the multifaceted nature of the BSPS, emphasizing its role in risk stratification, triaging, and facilitating targeted therapeutic interventions. The review also highlights the limitations and challenges associated with the BSPS, emphasizing the need for further validation studies and the integration of novel biomarkers to enhance its predictive accuracy. Furthermore, the review underscores the potential impact of the BSPS in reducing the morbidity and mortality rates associated with severe dengue in paediatric patients. Overall, this review provides insights into the current status and future directions of the BSPS, emphasizing its significance as a pivotal tool in the holistic management of paediatric dengue cases, and underscores the necessity for continued research to refine and optimize its clinical utility.

Keywords: Dengue, BSPS, Paediatric dengue management, substantial health



#### HUMAN RESOURCE PRACTICES AIMED AT ENHANCING LONG TERM EMPLOYABILITY

#### Dr. Brototi Mistri

MET Institute of Management BKC, Nashik, India

#### ABSTRACT

The study is to understand the importance of Human resources and employment in three major sectors Manufacturing sector, Agricultural sector and Tertiary sector. With transformation, growth and development it's only the human resources and their application of mind which is making it possible to move towards the development in business. Taking a few key examples of well-known Indian Companies like Reliance, Tata, and Birla. Key Practices have been identified such as Training and development, Appraisals, Compensation, ESOP and Recognition. It is important to not only Recruit the candidates but also to retain them for long term employability. So the purpose of the study is to understand what are the job opportunities available in these sectors and what good employee practices are followed by companies to care and retain the employees.HR plays an important role and face challenges how best they can include the human resources as a business partner. The companies those are really doing well are because of their people because they are all well trained and treated with dignity. This is a descriptive Research paper.

Keywords: Various sectors, Employment opportunities, Best HR practices

9



#### COLLECTION OF PRE-MONSOON GROUND WATER SOURCES FROM DARYAPUR & ANJANGAON-SURJI TAHSILS AND INVISTIGATE THE PHYSICO-CHEMICAL PARAMETERS

N.W. Bagalkar<sup>1</sup>, A.N. Varma<sup>2</sup>, C.G. Patond<sup>3</sup>, R. P. Dongare<sup>4</sup>, S.R. Paturkar<sup>5</sup>, G.A. Rane<sup>6</sup> and N. V. Phirke<sup>7</sup>

<sup>1</sup>Bacteriologist, G.S.D.A Department, Amravati <sup>2,3,4,5,6</sup>Students, Microbiology Department of J.D.P.S Daryapur <sup>7</sup>P. G.Department of Microbiology, Sant Gadge Baba Amravati University, Amravati, India

#### ABSTRACT

Water is the one of the topmost gift natures granted to all living creatures. It plays vital role for surviving world. A good quality of drinking water is essentially for all the people throughout the world. Quality drinking water should have balanced pH, rich contaminants and toxin free, minerals occurring, healthy. Some physical and chemical parameters were used for examined pH, TDS, Total Alkalinity, Total hardness, Chloride, turbidity. Poor quality of drinking water hazardous for health, in the present investigation undertaken groundwater samples for detecting from two tahsils, were 185 villages involved, surrounding area water mostly use for drinking purpose, agricultural, industrial and domestic. Mostly reasserts are groundwater sources (natural water) which contain different impurities.

Keywords: Water, hazardous, investigation, physical, chemical, impurities.



#### A STUDY TO IDENTIFY POST MENOPAUSAL WOMEN'S QUALITY OF LIFE AND SYMPTOMS THROUGH MACHINE LEARNING

C. Nageswari<sup>1</sup> and Dr. N. Meena<sup>2</sup>

<sup>1</sup> Research Scholar, Department of Physical Medicine and Rehabilitation, Annamalai University, Annamalainagar, Chidambaram, Tamilnadu, India
<sup>2</sup>Senior Lecturer, Department of Physical Medicine and Rehabilitation

#### ABSTRACT

The menopause, defined as the final menstruation or climacteric, which informs the aging of a woman's reproductive system.[1]Menopause typically occurs between 49 and 52 years of age. Medical professionals often define menopause as having occurred when a woman has not had any menstrual bleeding for a year. Menopause-related hormonal changes begin several years before the menopause and are characterized by a gradual increase infollicle-stimulating hormone (FSH) and more rapid decline insystemic female sex steroids (estradiol and estrone) within months around the menopause. [2] Reproductive aging among women has a far-reaching effect on the function of differentbody systems, and also on the psychological functioning andwell-being among middle-aged and older women. Menopause is an important life transition phase and hasbeen suggested to be a time of increased vulnerability in wellbeing.[5]. These severity of climacteric complaints is routinely determined by using the Kupperman Menopause Index (KMI). The Kupperman Index are widely used internationally. The Menopause Specific Quality of Life Questionnaire (MENQOL) is a validated questionnaire for the assessment of menopausal and post menopausal women's symptoms and an effective instrument (MENQOL). The Menopause Rating Scale (MRS) is a health-related quality of life scale (HROoL) and was developed in response to the lack of standardized scales to measure the severity of aging-symptoms and their impact on the HRQoL in the early 1990s. Machine learning is a subfield of artificial intelligence, which is broadly defined as the capability of a machine to imitate intelligent human behavior. Artificial intelligence systems are used to perform complex tasks in a way that is similar to how humans solve problems. In this system the Machine learning is greatly useful for the early detection of the vasomotor problems of the women so that we can detect her menopause early to make her well being from the long term complications like osteoporosis, fractures, obesity, depression, diabetes, and cardiovascular disease, decreased functional abilityand mortality.

Keywords: Post Menopausal women, Machine Learning, Kupperman Menopause Index, MENQOL, MRS Rating Scale



#### ANTIBACTERIAL EVALUATION AND CHARACTERIZATION OF COMBINED MILLETS

#### P. Brindha Devi M.Tech., Ph.D.,

Associate Professor, Department of Biotechnology, School of Engineering, Vels University, Chennai

#### ABSTRACT

The millets are the coarse grains with a proteins, fibre, vitamins and minerals. Some wellknown millets are pearl millet, little millet, proso millets, kodo millet, and barnyard millet. These millets are being used as a dietary fibre. Panicum sumtrense commonly known as little millet, Eschinchloe frumentaceae commonly known as barnyard millet and, Pasapulam scorbiculatum commonly known as kodo millet. These millets are well known for their secondary metabolites such as flavonoids, phenolics, carbohydrates. All these three millets were individually examined for their Total Phenolic Content (TPC), Total Flavonoid Content (TFC), Antioxidant property. The Echinochloa frumentaceae was checked for AntiPigmentation and Anti-Hyperglycemic activity. When these three millets are combined may exhibit higher Antibacterial, Antifungal activity against the microbial strains. The combined millets were characterized by GC-MS analysis to identify the compounds present in the sample.

Keyword: Millets, Antioxidant, Antibacterial, GC-MS characterization.



### ROLE OF HRIDDHAUTI IN THE YOGIC MANAGEMENT OF PITTA DOSHA: A CRITICAL STUDY

Lomash Prasad Sahu<sup>1</sup> and Dr. Ranjana Mishra<sup>2</sup>

<sup>1</sup>Researcher, Department of Yoga, Dev Sanskriti University, Sankara Kumhari, District- Durg, (Chhattisgarh)

<sup>2</sup>Research Director, Yoga Department, Dev Sanskriti University, Sankara Kumhari, District- Durg, (Chhattisgarh)

#### SUMMARY

Under Ayurveda, the stages of disease formation include three stages: accumulation, outbreak, and spread, which are also called seasons. In the first stage of accumulation, the accumulation of defects occurs at its own place and in the second stage of outbreak, the increase in defects occurs at its own place and in the third stage of spread, the defects start spreading to other places in the body. Therefore, these three stages of disease formation (accumulation, outbreak and spread) have been named Dosha Kriya Kala. Similarly, the accumulation of Pitta Dosha increases in the rainy season and in the autumn season, if the menstrual cycle is followed very well at this time, it calms down. If the menstrual cycle is followed then the spread can be stopped. For this, it is considered best to avoid unhealthy food and wrong lifestyle and eat only seasonal food. Presently, hyperdilated bile diseases resulting from imbalance of sole pitta dosha such as acidosis/gastroesophageal reflux disease, gastritis, proctitis, bad breath, psoriasis, bleeding disorders, urticaria, extreme body temperature, acidity/heartburn, pyrosis, digestive related The body gets surrounded by various disorders, dissatisfaction etc. At present, digestive disorders are at the peak among bile related diseases, whereas jaundice/jaw, skin problems, high body temperature, blood related disorders, eye related disorders, oral disorders, dissatisfaction with food have also been found to be at high levels of bile diseases. Yoga is currently popular as the best technique for management, prevention and natural beneficial and permanent treatment of the above diseases under alternative medicine. Because yoga is the most used technique for alternative medicine today. As a result, in this research work, it was critically described how the Shatkarma, Asana and Pranayama techniques described in the main ancient yoga texts are helpful in the management of Pittaja diseases. In addition to the physical asanas and pranayama in yoga, yogic lifestyle and purification techniques help in balancing the unbalanced pitta (Saraswati. 2004). The present research study is supported by the critical study of scriptural evidence and previous research works to solve the presented research problem. As a result of the review study, it was found that among the management techniques described in Yoga and Ayurvedic scriptures for the balance of Pitta Dosha and management of bile related diseases, under the famous purification processes of Hatha Yoga, a special type of Dhautikarma, Hridhauti, was described as the most suitable yogic technique. Which are experimentally proven to be extremely effective and beneficial and are also the best natural remedial methods that can be done at minimal cost.

Code words: Tridosha, Pittadosha, Yoga, Shatkarma, Hraddhiti, Health

=13



#### ASSESSMENT OF COMPARISON ON THE EFFECT OF SIRAVYADHANA (VENEPUNCTURE) AND JALAUKAVACHARANA (LEECH) ALONG WITH TRISHOTHADI LEPAM (OINTMENT) ON FOOT ULCERS

#### Dr. Devyani P Dasar

Associate Professor, Department of Shalya –Tantra, Mahatma Gandhi Ayurved College, Hospital & Research centre, Salod (H), Wardha

#### ABSTRACT

**Background** - Raktamokshana (Blood-letting) containing the procedures like Siravyadhana, Jalaukavacharana, Prachhna etc., popular Para-surgical procedures in Ayurveda and are time tested. It answers several chronic problems of ill health. It has been used for Pain relieving, to diminish the detrimental consequences associated with foot ulcers and for expulsion of victimized blood from the body; however mechanism of these effects has not been studied.

#### **OBJECTIVES**

- 1. To evaluate the effect of Siravyadhana and Jalaukavacharana alone and in combination with Trishothadi Lepam.
- 2. To establish the role of Ayurveda technique in the management of Foot Ulcers to make them much more valid and evidence based.

**Study design-**Single blind controlled comparative clinical study having sample size 40 patients, from OPD and IPD, Department of Shalya-Tantra at TTD's S.V. Ayurveda Hospital, Tirupati, AP, were selected on the basis of Inclusion and Exclusion criteria.

Grouping- Group-A- Jalaukavacharana with Trishothadi lepam,

Group-B- Jalaukavacharana without Trishothadi lepam,

Group-C- Siravyadhana with Trishothadi Lepam

Group-D - Siravyadhana without Trishothadi Lepam

Duration - 42 days (6 weeks), weekly once with Follow-up for 3 months.

Oxygen saturation was measured with Pulse Oximetry before and after the procedure.

Main outcome measure-Wound healing faster, Saturation increased after the procedure.

**Results**- Jalaukavacharana is the most efficacious procedure found in this trial. The statistical evaluations of all the results were displayed in the form of tables and graphs.

**Conclusion**-It is found effective in the management of foot ulcers which probably well used the local effects of inflammation and thereby enhancing the proper circulation at the site of Ulcer. Application of Trishothadi Lepam though did not show any extra advantage but proves to be exerting good effects of Wound Healing.

Keywords: Raktamokshana, Siravyadhana, Jalaukavacharana, Trishothadi Lepam, Foot Ulcers.

=14



#### DNA GYRASE AS A POTENTIAL DRUG TARGET-A REVIEW

Rajakumari K<sup>\*</sup>, Balamugundhan M, Aravind K, S Ivo Romauld, P Vivek and SS Meenambiga

Department of Bioengineering, School of Engineering, Vels Institute of Science, Technology and Advanced Studies (VISTAS), Pallavaram, Chennai-6000117

#### **ABSTRACT:**

The remarkable enzyme DNA gyrase is responsible for catalysing the ostensibly complicated process of DNA supercoiling. Gyrase is a good target for antibacterial medicines since it is crucial to prokaryotes. These substances interact with gyrase in a variety of ways and have various chemical structures. An important bacterial enzyme called DNA gyrase is responsible for the ATP-dependent negative super-coiling of double-stranded closed-circular DNA. Gyrase is a member of the group of enzymes called topoisomerases that regulate DNA's topological transitions. From an enzymological perspective, the process by which gyrase is able to affect the topological state of DNA molecules is of inherent interest. Additionally, the intracellular target of several antibacterial drugs, DNA gyrase, has received a lot of interest as a model for additional DNA topoisomerases. In this review, we discuss a variety of elements of the study of DNA gyrase in order to provide a current summary of our understanding.

Keywords: DNA gyrB, Staphylococcus, drug target, inhibitors, etc.,



#### EXPLORING ESSENTIAL OIL EXTRACTION FOR DENTAL APPLICATION

### S. Ivo Romauld<sup>1</sup>, S. Saravanan Vikneshwer<sup>2\*</sup>, P. Brindha devi<sup>3</sup>, P. Vivek<sup>4</sup>, K. Rajakumari<sup>5</sup>, S.S. Meenambiga<sup>6</sup> and S. Thiruvengadam<sup>7</sup>

<sup>1,2,3,4,5,6</sup>Department of Bioengineering, School of Engineering, Vels Institute of Science, Technology and Advanced Studies (VISTAS) Pallavaram, Tamil Nadu, India.

<sup>7</sup>Department of Biotechnology, Rajalakshmi Engineering College, Chennai-602105, Tamil Nadu, India

#### ABSTRACT

The essential oils are volatile and fragrant substance generated during the steam distillation from plant material. Depending on the particular plants from which they are originated, they frequently earn names. Essential oils can be classified in a variety of ways, such as a compound, a mixture of aromatic materials, or a combination of aromatic and non-aromatic components. Because of their potent and advantageous qualities, essential oils are used as antimicrobial, anticancer, beneficial, and antiviral medications. Often essential plant oils were used for tastes and perfumes. A complex biofilm known as dental plaque builds up over the hard connective tissue (teeth) in the dental cavity. Despite the fact that there are over 500 different bacterial species in plaque, colonization occurs in a systematic manner, starting with initial colonizers adhering onto the enamelled salivary pellicle and progressing to secondary colonization by interbacterial adhesion. Anti-infective drugs were widely used, which led to the development of germs, fungi, and viruses that were resistant to them. A range of plants for medicinal purposes have been tested for their antibacterial qualities globally in an effort to combat the pathogenic germs rising resistance. It has been observed that essential oils made from fragrant medicinal plants have outstanding antimicrobial properties against viruses, bacteria, yeasts, and filamentous fungi. In this review, exploration of different essential oils will be observed for the dental application.

Keywords: Steam distillation, essential oils, anti-oxidant technique, fragrance, Colonization.



#### IN SILICO ANALYSIS OF NOVEL CHEMICAL COMPOUNDS: NATURALLY INSPIRED PRIVILEGED STRUCTURES

#### Madhavi Kuchana\*

Professor, Department of Pharmaceutical Chemistry, Institute of Pharmaceutical Technology, Sri Padmavati Mahila Visvavidyalayam (Women's University) Tirupati-517502, Chittoor, Andhra Pradesh, India

#### ABSTRACT

The estimation of molecular properties and bioactivity score of computationally developed 2-cyano-3hydroxy-5-(4-hydroxy-3-methoxyphenyl)penta-2,4-dienamide and 3-hydroxy-5-(4-hydroxy-3methoxyphenyl)penta-2,4-dienamide derivatives of 4-(trifluoromethyl)aniline, aminohydroxybenzoic acids, aminobenzoic acids and aminophenols was carried out using Molinspiration Cheminformatics. The druglikeness, drug score and toxicity risks of all the compounds were evaluated computationally using Osiris Property Explorer. The results were compared with the data obtained using natural compound Curcumin and a standard drug Teriflunomide. All the developed compounds obeyed Lipinski rule of five, therefore considered as drug-like and most of the compounds assessed with moderate to good bioactivity score as enzyme inhibitors, nuclear receptor ligands, kinase inhibitors, protease inhibitors, GPCR ligands and ion channel modulators. Except few, all the compounds of present investigation showed better drug-likeness, drug score and low toxicity risks. Among all the compounds, 3-hydroxy-5-(4-hydroxy-3methoxyphenyl)penta-2,4-dienamide derivatives of aminophenols showed highest drug score greater than the natural compound Curcumin. Most of the compounds estimated to have good drug score greater than the standard drug Teriflunomide indicating beneficial effect of molecular hybridization, molecular manipulation or alteration.

*Keywords:* 2-Cyano-3-hydroxy-5-(4-hydroxy-3-methoxyphenyl) penta-2,4-dienamide, 3-Hydroxy-5-(4-hydroxy-3-methoxyphenyl)penta-2,4-dienamide, Aminohydroxybenzoic acids, Aminobenzoic acids, Aminophenols, Curcumin, Teriflunomide..



#### SUSTAINABLE BUSINESS PRACTICES AND CORPORATE SOCIAL RESPONSIBILITY

#### **Dr. Brototi Mistri and Dr. Manav Agrawal** MET Institute of Management BKC, Nashik, India

#### ABSTRACT

In the dynamic landscape of modern business, the symbiotic relationship between sustainable business practices and corporate social responsibility (CSR) has become a pivotal consideration for organizations seeking long-term success. This research paper delves into the intricate interplay between these two fundamental concepts, exploring their combined impact on organizational viability and societal betterment.

Drawing from a comprehensive literature review and empirical data analysis, this paper unveils key insights. It underscores the alignment between sustainable practices and business objectives, revealing how strategic CSR initiatives enhance stakeholder engagement and bolster organizational reputation. Ethical governance and visionary leadership emerge as catalysts for the integration of sustainability into business operations, leading to a triple bottom line impact – encompassing economic, social, and environmental dimensions.

The findings accentuate the importance of fostering collaborative ecosystems and strategic leadership approaches to navigate uncertain business environments. This study's significance resonates beyond academia, offering actionable insights for businesses to forge a path that combines responsible practices with sustained growth. By embracing sustainable business practices and embracing corporate social responsibility, organizations can not only thrive but contribute positively to society, marking a transformative step toward a more equitable and prosperous future.



#### HIGH-PERFORMANCE THIN LAYER CHROMATOGRAPHY ANALYSIS AND FINGERPRINTING OF PHYTOCONSTITUENTS OF HELICTERES ISORALINN AND PSIDIUM GUAJAVA LINN

Miss Dhole Shital M.<sup>1</sup>\*, Mr. Swami Avinash B.<sup>1</sup>, Miss Rathod Reena S.<sup>2</sup>, Miss Kshirsagar Pradnya M.<sup>3</sup> and Miss Kendre Jayshri M.<sup>2</sup>

<sup>1</sup>Research Scholar, Channabsweshwar Pharmacy College (Degree), Latur, MH, Bharat
 <sup>2</sup>Research Scholar, School of Pharmacy SRTMU, Nanded, MH, Bharat
 <sup>3</sup>Assistant Professor, Shri Sambhaji College of Pharmacy, Khadkut, Nanded, MH, Bharat

#### ABSTRACT

High-performance Thin Layer Chromatography (HPTLC) is one of the many sophisticated, flexible, robust, and cost-effective separation techniques employed in the discovery, development, and analysis of new drugs. HPTLC method has been developed for analysis of phytoconstituents from Helicteres isora linn and Psidium guajava linn fruit extracts. The analyte was extracted with methanol and applied on TLC aluminium plates along with standard using Linomat IV spray on sample applicator (CAMAG). Analysis of phytoconstituents was performed on pre-coated TLC aluminium plates with silica gel as the stationary phase and prewashed with methanol. Linear ascending development was carried out in twin trough glass chamber saturated with mobile phase consisting of Toluene: Ethyl acetate: Formic acid (6.0: 4.0: 0.3 v/v/v). Spectrodensitometric scanning was performed by TLC scanner III (CAMAG) in absorbance mode at the wavelength of 330 nm. The system was found to give compact spots for RA (Rf value of 0.2  $\pm$  0.04). The linear regression analysis data for the calibration curve showed good linear relationship (r2 =0.9987) in the concentration range 10-50µl, with respect to peak area.

Keywords: Helicteres isora linn, Psidium guajava linn fruit extracts, HPTLC



### INDIAN ACADEMICIANS AND RESEARCHERS ASSOCIATION (IARA)

