

# **INDIAN JOURNAL OF NATURAL SCIENCES (IJONS)**

**BIMONTHLY INTERNATIONAL JOURNAL (PRINT)**

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**Published by**  
**TAMILNADU SCIENTIFIC RESEARCH ORGANISATION**

Regd.Off. : NO 46-141, MEENAKSHIPURAM RD, NEAR POST OFFICE, ARIMALAM 622  
201, PUDUKKOTTAI, TAMIL NADU, INDIA



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Journal Name	INDIAN JOURNAL OF NATURAL SCIENCES (IJONS)
Frequency	Bi-monthly ( Feb, Apr, Jun, Aug, Oct, Dec)
ISSN	0976 – 0997 ( Print)
Publisher	TamilNadu Scientific Research Organisation , Pudukkottai, Tamil Nadu, India
Chief Editor	Dr.S.Vijikumar
Copy right	TamilNadu Scientific Research Organisation (TNSRO) Pudukkottai, Tamil Nadu, India.
Starting Year	2010
Subject	Multi Disciplinary Science Subjects
Review Process	Double Blind Review Process
Language	English
Publication Format	Print
Access	 OPEN ACCESS
License	 Creative Commons Attribution License 4.0
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Website	<a href="https://www.tnsroindia.org.in/">https://www.tnsroindia.org.in/</a>
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Volume XV (15) CODEN: IJONS (88) (2025)		February 2025 ISSN: 0976 - 0997
S. No	CONTENTS	Page No.
123	Environmental Impact Assessment: Evaluating Lignite Mines and Thermal Power Plant in Gurha, Bikaner, Rajasthan Vijay Kumar Matoria, Shishir Sharma, Deva Ram Meghwal, Ram Niwas Dhetarwal <sup>1</sup> and Saroj Ameria	88261-88269
124	Production of Single Cell Protein from Fruit Wastes using Bacterial Consortium and Preparation of Chocolates N. Uma Maheswari and A. Roshan Masootha	88270-88275
125	Natural Hair Care: The Antidandruff Benefits of Medicinal Plants Mughisa Nagori, S. C. Mahajan, Deepak Joshi and Ravina Patidar	88276-88291
126	<i>Markhamia lutea</i> (Benth.) K. Schum: A Less Known Ethno Medicinal Plant of Jharkhand Neetu Rani	88292-88294
127	Efficacy of <i>Yoni Dhupana</i> along with <i>Shaman Aushadhi</i> in <i>Kaphaja Yoni Vyapada</i> - A Case Study Dixita Damachiya and Lumi. Bhagat	88295-88300
128	Echoes of Identity and Displacement : Psychological Complexities in Khaled Hosseini's and the Mountains Echoed Sindhu .S and Vidya Dass	88301-88305
129	Cytological and Clinical Analysis of Shadbindu Taila in Jeerna Pratishyaya (Chronic Rhinitis) - A Single Case Report Rashmi .B .R, Sandhya Rani .D and Madhusudan .B .G	88306-88314
130	Efficacy of Slump Mobilization, Myofascial Release and Sustained Natural Apophyseal Glides in Individuals with Cervicogenic Headache : A Randomized Clinical Trial Protocol Sukhpreet Kaur, Mandeep Kumar Jangra, Yukta Sharma and Akanksha Saxena	88315-88320
131	Telomerase as a Therapeutic Target in Breast Cancer : Emerging Inhibitors and Strategies C.K.Thasneem, P Famina and M Amrutha	88321-88328
132	Neuroprotective Effect of <i>Euphorbia hirta</i> : A Review Dimple Yadav, Pankaj Masih, Ritesh Jain, Sharang Bali, M Gyanaranjan and Prabin Kumar Jani	88329-88338
133	Evaluation of Antimicrobial Properties of Chemical Copper Oxide and Silver Doped Copper Oxide Nanoparticles Roshni Lalwani, Rita N Kumar and Nirmal Kumar .J .I	88339-88345
134	Comparative Study of Nimabdi Yoni Varti with Pippalyadi Yoni Varti in the Management of Garbhashaya Greevagata Vrana W.S.R. Cervical Erosion Bhoomi Prajapati and Vrushalee Dodke	88346-88351

135	A Comprehensive Meta-Analysis of Melatonin's Efficacy in Preventing Hepatotoxicity: Mechanisms, Clinical Applications and Future Directions Abhishek Samanta and Nandan Bhattacharyya	88352-88360
136	Potential <i>in-vitro</i> Antibacterial Bustle of Honey: Approaches from nature to the laboratory Subhankari Prasad Chakraborty	88361-88367
137	Effect of Myofascial Decompression (Cupping Therapy) on Mouth Opening in Tobacco Chewers : A Randomized Controlled Trial Mohammed Sohel Quadri, Glrish Baldha , Pratik Ashokkumar Gohil, Pathik Bagada, R. Arunachalam <sup>5</sup> and Anjali Pratik Gohil	88368-88373
138	Qualitative Analysis of Organophosphate Pesticides (OPP) from Agricultural Soil of H.D.Kote Taluk, Mysuru, Karnataka, India Bharath M, Sandhya N.C, Yogesha .P and Raju .N .S	88374-88381
139	Schwannoma - A Rare Case Report Neha N. Kharwade and Anwesha Samanta, Rizwan Shaikh and Dhanvarsha Sarwade	88382-88386
140	Influence of Inorganic Fertilizers with Organic Sources on Growth and Yield of Pruned Crossandra ( <i>Crossandra infundibuliformis</i> L.) cv. Lakshmi K.Gayathri and R. Sendhilnathan	88387-88394
141	Contrasting Perspectives in Ayurveda: Unveiling the Unique Formulations Insights of Acharya Chakrapani and Acharya Gangadhara Anjali Patel and Vijay Bhagat	88395-88398
142	Comparative Analysis of the Physico-Chemical and Chromatographic Profiles of <i>Cynodon dactylon</i> (L.) pers. (Durva) in Powdered and Aqueous Extract Forms Vidya G Mohan and Omprakash Dave	88399-88403
143	Properties of Possibility Neutrosophic Soft Matrices Arshad Ahmad Khan and Sruthi Kumar S	88404-88411
144	Bioactive Compound Analysis in Leech Salivary Glands Nourished with Manjistha Siddha Jala Milan Patel , Harish Daga and Omprakash Dave	88412-88416
145	Marma Therapy in Facial Palsy – A Case Report. Bhopindar Singh, Shaileshjaiswal and Dikshasharma	88417-88421
146	Ameliorative Activity of Bromelain an Active Principle of Pineapple against Cisplatin Induced Nephrotoxicity Aswini Gounipalli and Lavanya Yaidikar	88422-88430
147	Temporomandibular Joint Disorders : A Review Neha N. Kharwade, Anwesha Samanta, Rizwan Shaikh and Dhanvarsha Sarwade	88431-88437
148	Enhancing Vehicle -to - Grid (V2G) Systems for Efficient Energy Management of Renewable Power Integration Raja Reddy Duvvuru, T. Sumalatha, T. Umamaheswari and Rajesh Reddy Duvvuru	88438-88446
149	Effects of Postnatal Exercise on Pelvic Tilt in Early Vaginal Delivery	88447-88453



	Mothers Priya .D, Sathyaprabha .B, Ponmathi .P and Subhalakshmi .S	
150	Ayurveda Management of Branch Retinal Vein Occlusion with Cystoid Macular Oedema – A Case Study Anupama H. Patil and Gavimath Shivanand	88454-88459
151	Efficacy of Ayurvedic Management in Early - Stage <i>Pakshaghata</i> Post-Intracranial Hematoma : A Case Study Deepak Yadav, Nirmala Sonawane, Mahesh M P and Gaurav Kumar Dash G	88460-88469
152	Contribution of Manuscript 'Ashmari Chikitsa' in the Field of Ayurveda Adithyan and Akshar Kulkarni	88470-88474
153	Women within the Web of Tradition and Modern Science Technology Wonsingphy Leisan and K.Somasundaran	88475-88479
154	Hybrid Deep Learning Multimodal for Enhanced Video Classification Priyanka Panchal and Dinesh J Prajapati	88480-88488
155	A Deep Study of MRI based Brain Tumor Detection for Intelligent Healthcare - Employing Various Deep Learning Networks J. Jelina and K. Santhosh Kumar	88489-88498
156	Computation of Revan Indices and Revan Polynomials of Semi-Total Point Dutch Windmill Graph and its Line Graph R. H. Aravinth and R. Helen	88499-88504
157	Comparative Evaluation of Efficacy of Mouthwash Containing Chlorhexidine Digluconate Alone and Chlorhexidine Digluconate in Combination with Hyaluronic Acid on Post-Operative Healing After Periodontal Flap Surgery - A Clinical Study Akanksha Karale, Pramod Waghmare, Vidya Dodwad and Nishita Bhosale	88505-88511
158	A Marine Fungal Diversity from Kuppam and Pazhayangadi Mangrove Ecosystem of North Kerala Gayatri. R. Nambiar	88512-88516
159	Enhancing Soil Physical Properties with Organic Amendments S.Pushpa, F.Jeyamangalam and H.Johnson Jeyakumar	88517-88521
160	Split Anti-Fuzzy Equitable Dominating Set in Anti-Fuzzy Graphs K.Janofer and S. Firthous Fatima	88522-88525
161	Minimal Reinhard Zumkeller Divisor Cordial Labeling of Some Special and Overloaded Graphs A.Ruby Priscilla and S.Firthous Fatima	88526-88529
162	Breath Biopsy : A New Diagnostic Modality in Detection of Cardio Vascular Diseases Sukanya Gunwant, Anurag Bhatnagar, Shalini Kapoor and Chandra Mouli Pandey	88530-88535
163	Synthesis and <i>In vitro</i> Bioactivity Study of N'- (5-Bromo-2-Hydroxy Benzylidene) Adamantane - 1 -Carbohydrazide Harmeet Kaur Kohli and Deepa Parab	88536-88540

164	Design and Implementation of Super-Lift Luo Converter to Improve the Performance of Standalone PV System N. V. Uma Maheswari	88541-88546
165	Targeting NF-KB in Psoriasis: the Innovative Potential of $\alpha$ -Humulene as A Novel Therapeutic Agent Rajabikramaditya Panda, Chitra Vellapandian and Sumithra Mohan	88547-88558
166	Febrikid Plus - An Ayurveda Antipyretic : A Pilot Clinical Trial Shailaja Lohar, Dipeeeka Surwase, Swapnil Raskar and Jaidev Gaheja	88559-88570
167	Gentamicin-Induced Nephrotoxicity: Insights into its Influence on Electrolyte Levels Rahul kumar, Chitra Vellapandian and Gowri Krishna Perumal	88571-88583
168	Management of Recurrent Anjannamika (External Hordeolum) through Ayurveda : A Case Study Surabhi Khare, Shivkant Sharma, Manjiri Keskar, Shalaka More and Anu Vijayan	88584-88591
169	Exploring new results on FPT for $\Omega$ -Hardy Rogers Type Contraction Mapping Mercy Arokia Rani J and Leema Maria Prakasam A	88592-88599
170	Structural Properties, Electrochemical Behavior and Anticancer Activity of Ag Nanoparticles Synthesized By Eco-Friendly Approach S.Sivakumar, V.Hariharakrishnan, P.Arul Prakash and M.S.Mohamed Jaabir	88600-88611
171	Green Energy Geopolitics: Navigating the Intersection of Energy, International Relations, and Sustainability Kshitij Kumar and Bateshwar Singh	88612-88623
172	A Supernumerary Number of Directed and Total Directed Graphs S. Mahesh Priya and M. Kamaraj	88624-88631
173	Contra $p(gg)^*$ - Continuous Functions in Topological Space G.Hari Siva Annam and S. Pavithra	88632-88641
174	Harmonic Index and Eccentric Harmonic Index of Double Star Fanbell Graph and Petersenfanbell Graph Haritha H and Sivasankar S	88642-88647
175	Unveiling the Chemical Tapestry: Exploring Mustadi Ghanavati through Analytical Study and HPTLC Jeenal Patel and Lumi Bhagat	88648-88654
176	Proposal for the Solution of Linear Fractional Programming Problem through Fourier - Motzkin Elimination Method Akshika Verma , Bharti Agrawal and Anamika Gupta	88655-88658
177	FT-IR Spectral Characterization of Muthuchippi Parpam at Various Stages of Processing : A Comparative Study B. Abarna and V. Manjari	88659-88663
178	Probation as a Therapeutic Tool: Examining the Medico - Legal Framework for Promoting Offender Reintegration in India Biju Joseph and Shilpa M.L	88664-88678

179	Enhancing Tomato Growth and Yield under Salinity Stress using Chitosan Nanoparticles : A Sustainable Approach Zakir Hussain Malik and R Somasundaram	88679-88687
180	An AI - based Framework for Disease Recognition in Fruit Leaf using Deep Learning Methods T. Nikil Prakash	88688-88695
181	Development and Evaluation of a Nutrient-Rich Premix using <i>Artocarpus heterophyllus</i> Seed with Millet and Pulse Dharmambal M.PL, Joan Precilla. K and B.Premagowri	88696-88702
182	Effect of Integrated Nutrient Management on the Growth and Flowering Characteristics of Watermelon ( <i>Citrullus lanatus</i> Thunb.) D. Bawya and P. Madhanakumari	88703-88708
183	Development and Evaluation of Okra Mucilage Herbal Gel for Antibacterial Application Joysa Ruby J, Hemalatha K and Selvakumar K , Venkatsh DP, Muhammed Shahan, Sreeshyam Chandran <sup>5</sup> , Amrutha P.S, Ramit Dutta and Deepthi Mahil L	88709-88717
184	Ayurvedic Management of ITP (Immune Thrombocytopenic Purpura) / Post Covid Vaccine Thrombocytopenia - A Case Study Gaurav Thakur and Rekha Parmar	88718-88722
185	Predictive Analysis for Enhancing Student Learning Outcomes using Machine Learning Techniques D.R.Jiji Mol and L. Dinesh Kumar	88723-88730
186	The Role of Satmya in Modern Food Parenting: A Critical Review of Ayurvedic Dietary Compatibility in Child Nutrition Ashwini Kumar Patil, Bhrigapati Pandey and Bharat Patil	88731-88738
187	An Observational Study of Jihwa Pariksha in Amavata Vyadhi with Special Reference to Rheumatoid Arthritis Khyati Makwana and Mrunal Bhoir	88739-88744
188	Study on Different Machine Learning and Deep Learning Techniques using Internet of Health Things Data for Disability Detection R. Maneendhar and D. Kavitha	88745-88750
189	Improve the Stability of the Meshed Power System Network with a Fuzzy-based PV System P. Sarala and J. Mano Chandra	88751-88755
190	Prevalance of Psychological Changes in School Going Children Visiting Ayothidoss Pandithar Hospital, National Institute of Siddha, Tambaram Sabatorium - A Cross Sectional Study G.Sneka, R.Poonguzhal Isaikavi, S.K.Karunya, M.Meenakshi Sundaram	88756-88761
191	Floating Tray Farming: A Novel Approach to Rice Crop Selection using Pythagorean Fuzzy SMART - Multi-Distance Evaluation Model R. Seema and R. Sophia Porchelvi	88762-88770
192	Evolution of Colour Pattern and Symmetry Analysis of Nymphalid Butterflies in Ponmudi Hills of Western Ghats Mano Mohan Antony, Vineetha V.S, Farhan V, Lekshmi M .S and Saranya S	88771-88777

193	Incorporation of Transportation, Damage and Waste Management Costs into Sustainable Inventory Model with Hexagonal Fuzzy Numbers and the Pascal Triangular Solution Approach V.Vinola Elisabeth and S. Rexlin Jeyakumari	88778-88785
194	Exploring Innovative Approaches to Training Delivery in the Era of Digital Transformation M.S.Kamalaveni, D.Suthamathi and G.Madhumadhi	88786-88792
195	Proportional Overview of Conventional Vehicles and Electric Vehicles – Green Technology Challenge Pallavi N and Cynthia Menezes	88793-88799
196	Newer Advancements in Periodontal Regeneration: The Periodontal Ligament Stem Cells Anurag Bhatnagar and Amit Bhardwaj	88800-88806
197	Documentation of Traditional Health Care Practices and Rituals among (Kurawar and Kaatunaickar) in Sivagangai District, Tamil Nadu – Cross Sectional Study Praise Prabha Devadoss, Aruldevi Selvan and R. Archana Ramalingam	88807-88812
198	Assessment of the Efficacy of Developed Anti-Acne Gel Formulations Containing Calendula officinalis Extract, Tretinoin and their Combination Ashok Mahato, P.K. Choudhury, Ajay Shukla and Maya Sharma	88813-88822
199	Evaluating the Impact of Artificial Intelligence on Logistics and Supply Chain Efficiency V P Rameshkumaar, D.Ganesan, S.Revathy, R. Karthikeyan and P. Praba Devi	88823-88828
200	PC-DHT: Prefix -Cartesian Distributed Hash Table for Load Balancing and Replication in Wireless Sensor Networks R. Kousalya and K.Nithya	88829-88837
201	Studies on Ag NPs using <i>Trigonella foenum</i> Seed Extract by Green Synthesis Method A. Jeni and S. Begila David	88838-88843
202	Observational Pilot Study to Assess Psychological Wellbeing in Apparently Healthy Women of before Perimenopause and Perimenopausal Kajal R Senghani , Narendra Yadnik, Neha Gadgil and Nishant N Patel	88844-88847
203	Design and Performance Analysis of Hybrid System using Distributed Power Flow Controller Rudrapati Aruna and T Rajesh	88848-88852
204	Digital Forensic Science and Evidentiary Standards in the Bharatiya Sakshya Adhinyam (BSA) 2023: A Legal Examination of Admissibility Rahul Kailas Bharati and Sandeep Nagarale	88853-88866
205	Well-Being in the Age of Digital Transformation: Examining Stress, Workload and Support Systems for IT Employees P.K.Anjani	88867-88875
206	A Case Study on the Efficacy of Ayurvedic Treatment for Guillain-Barre Syndrome Dharmesh Pandey and Vijay Bhagat	88876-88886

207	GAN-based Oversampling with Adaptive Feature Selection and Attention Mechanism for Imbalanced Medical Data Classification M. Kavitha and M. Kasthuri	88887-88900
208	Role of Mindfulness based Intervention in Orthopedic Physiotherapy: A Systematic Literature Review Aayra Firdous and Shwetha Sasidharan	88901-88909
209	Blockchain -Integrated Network Security for Enhanced Cyber Threat Detection in Healthcare Shashwata Kumar Ranjit, Soumyajit Das, Souvik Moitra, Sandip Roy and Rajesh Bose	88910-88920
210	Income Level as a Moderator between End Consumers' Perception and Attitude towards GST Compliance and the Role of AI-Driven Tax Solutions: A Study in Guntur City Muppa Neetha Sai and Sundar V	88921-88928
211	Opinion of Unorganized Sector Insured People (Farmers) about Health Insurance in Puducherry Union Territory Kumar Raja Nathan P, K. Chinthamani, Prabavathi Venugopal, G. Sathya and M. Sampath Nagi	88929-88938
212	Asthma Alleviation: Exploring Ayurvedic Interventions in Geriatric Cases Nikhil R Chaudhari and Manu R	88939-88944
213	A Machine Learning Assisted Handover Mechanism for Software Defined Networks for Better QoS Rudrakshi Sharma, Rupesh Dubey and Angeeta Hirwe	88945-88952
214	FRFYOLO - Fusion of Random Forest and YOLO Frame work for Real-Time Accident Event Detection M. Rajamanogaran and G. Karthikeyan	88953-88965
215	A Systematic Review on Dengue Virus, Current Paradigms in its Diagnosis and Treatment: Trends, Scope and Relevance Priyancka Arora, Laxmi Singh, Anupam Sharma, Seema Ramniwas, Ashwanti Devi and Anil Kumar Sharma	88966-88980
216	Ovarian Cancer Classification using Endure Regional Geography Framework P. Thenmozhi and T. Parimalam	88981-88993
217	Green Synthesis of Silver - Doped Manganese Oxide Nanoparticle for the Degradation of Antibiotic Contamination in the Pharma Industry Effluent Stream Balakrishnaraja Rengaraju, M. Gobinath, Gnana Asmi, B V Ramanan, K. Selvapriya and Nadana Raja Vadivu	88994-89005
218	Age Invariant Face Recognition for Biometric Authentication using Bald Eagle Optimization Chengathir Selvi M, Bhuvaneswari T, Sherin Ebenezer S and Sherlin Mercy M	89006-89019
219	A Multi-Objective Optimization Approach to IPL Team Selection using Advanced Performance Metrics and the Real-Binary Algorithm Prakruti Dave and Kaushal Patel	89020-89029

220	Abundance and Distribution of Fishes in Durgadahalli Lake of Tumakuru District, Karnataka Pushpa T C and Bhupanapadu Sunkesula Mary Stella	89030-89035
221	Comparison of Natural Agar - based Bioplastic with other Starch - based Bioplastics: A Green try for A Sustainable Environment Smrithy.P. S, Sajani Jose, Nafeesa A, Kavyakrishna P, Hameeda Faseeha M, Adheena K. G, Amritha K and Mary Jijimol Chacko	89036-89046
222	Transforming Lives: The Role of Self-Help Groups in Women Empowerment in Khurda District, Odisha Sitansu Ranjan Swain, Vijaya Rudraraju and Sasmita Nayak	89047-89052
223	The Statistical Analysis of Menstruation Hygiene Practices and School Absenteeism among Adolescent's Girls in Rural and Urban Area of Satara District, Maharashtra R. H.Waliv and P. R. Chavan	89053-89059
224	Product Signed Domination in Soft Graphs Velammal T M, A. Nagarajan and K. Palani	89060-89065
225	Assessing the Impact of Agricultural Land Reduction on Future Global Food Security: Challenges and Sustainable Solutions A.Ranjithkumar	89066-89083
225	MalHeader: Malware Detection on Parser Extraction of Portable Executable-Header S. Divya	89084-89094
226	Aromatase Inhibitors in Breast Cancer: Management Therapies and Molecular Discoveries Rasmiya Shirin, Fida Fathima, K.Sahma, T P. Sahadiya, I P.Shamna, P. Deepika, A. Sherin and M K. Sirajudheen	89095-89101
227	Documentation of Urban Trees with Medicinal uses in Shivamogga Taluk, Karnataka Ramesh B.H.	89102-89120
228	Proteolytic, Anti-Microbial and Soil Enrichment Activity of Bio Enzyme from Citron, Orange and Pineapple Fruit Peels - A Comparative Study for Waste Valorization towards Sustainable Waste Management Priya Josson Akkara, Priyadharshini B and Sonia Angeline M	89121-89131
229	Influence of Yogic Practices on Trigunas among Teacher Trainees Ranjitha .E and V. Suseela	89132-89137
230	Impact of Magnesium chloride on the Physiochemical Properties of L-Histidine Tetra Fluoro Borate Single Crystal – An Amino Acid Based Semi Organic Crystal T. Rasappan, C. Besky Job and C. Justin Dhanaraj	89138-89143
231	Bioethanol Production from Hydrolysate of Defatted Biomass of Double Mutant <i>Pseudochlorella pringsheimii</i> under Optimized Condition N. Sivakumar and K. Dhandayuthapani	89144-89154
232	Fuzzy Green Inventory Management in Supply Chains with Consideration of Limited Carbon Emissions Alda .W. S and Rexlin Jeyakumari .S	89155-89164

233	Hybrid Model for Design and Development of an Optimisation Chatbot by Voting to Select Best Classifier Bedre Nagaraj and Girisha GS	89165-89172
234	Formulation of Deodorant Incorporated with Combinatorial Extracts of Plants and Natural Stone - An <i>In-vitro</i> Study V Rajalakshmi, Esther Feddora Geta Kishore, T Vishali, P Vidya and M Abirami	89173-89181
235	Phytochemical Estimation and Antioxidant Potential of Plant Extracts of <i>Mukia maderaspatana</i> (L.) M. Roem Smit Bhavsar and Nainesh R. Modi	89182-89191
236	Revolutionizing Early Detection of Parkinson's Disease: Integrating Machine Learning, Neuroimaging and Biomarkers for Improved Patient Outcomes A Sathiya Priya and Marrynal S Eastaff	89192-89198
237	Bi-Directional Impression Management and Perceived Stress Levels in Indians with Dark Tetrad Personalities during the COVID-19 Lockdown Kaushik Banerjee and Sudipta Adhikary	89199-89208
238	<b><i>Ag.nI</i></b> - Locally Closed Sets E. Veeramalai, I. Rajasekaran and M. Navaneethakrishnan	89209-89214
239	Clinical Safety Evaluation of Mercury based Siddha Medicine ( <i>Rasaganthi Mezhu</i> ) in NIS IPD & OPD Patients B. Prathisha, P. Shanmugapriya, J. K. Jayasree and B. Neethi	89215-89220
240	<i>In silico</i> Approach to Investigate the Potential Mechanism of <i>Telosma cordata</i> on Gastric Ulcer Utilizing Network Pharmacology and Molecular Docking A. Priyanga, P. Sharon Reici, T. Susithra, T. Bakkiyavathipriya and S. Kavimani	89221-89229
241	Key Gene Regulatory Network Analysis - An Application of Domination of Graphs Leo Anto .T.A and R Shanmugapriya	89230-89233
242	Geotechnical Evaluation of Altitudinal Variation and Land use Impacts on Soil Properties in Northeast India with Special Reference to Nagaland Sudipta Adhikary	89234-89242
243	A Fast and Compact Hybrid CNN Model for Weed Species Identification using Hyperspectral Image Tejaskumar B. Sheth and Milind S. Shah	89243-89254
244	Review and Comparison of Specifications of Herbal Raw Materials and their Preparations as per Various Pharmacopoeias Dipa R. Mehta and Niranjana S. Kanaki	89255-89268
245	On Finding Integer Solutions to Quaternary Quadratic Diophantine Equation $x^2 - 6y^2 + 15z^2 = w^2$ J. Shanthi and M.A. Gopalan	89269-89276
246	Lecithin as a Therapeutic Intervention for Neurasthenia: A Case Report Zankhana Desai and Ketan Shah	89277-89283

247	An Enhanced Disease Detection System for Solanaceae Plants: A Transfer Learning Approach with Pre-trained CNN-VGG16 Model Ishita Theba and Sudhir Vegad	89284-89295
248	Healing Eyes :A Case Study on Squamous Blepharitis and Its Ayurvedic Treatment Prince Bhalodia and Sachin Deva	89296-89300
249	Air Pollution Tolerance Index (APTI) of Some Terrestrial Plants in Nistarini College Campus, Purulia, WB, India Moumita Sinha, Soumi Das, Sujata Mahato and Moumita Mahato	89301-89308
250	Green Synthesis and its Applications of Magnesium Oxide Nanoparticles from the Seeds of <i>Citrullus lanatus</i> A. P. Angeline Mary and M. Fernandus Durai	89309-89315
251	Effect of Various Nutrients and Gibberellic Acid on Growth and Yield of Gladiolus ( <i>Gladiolus grandiflorus</i> L.) cv. White Prosperity P. Soundharya and R. Sendhilnathan	89316-89325
252	Infertility and Sexuality : A Qualitative Study of Women's Lived Experiences Shabnam Ahmad Koka and S. Allah Baksh	89326-89331
253	Fusion of Artificial Intelligence and Blockchain Technology Swetha C ,S.Bhavana and T VenkatNarayana Rao	89332-89343
254	Standardization of Jeevaniya Panchamoola Ghrita (A Compound Herbal Classical Preparation) By HPLC Method Pratibha Keralli and Gavimath Shivanand	89344-89348
255	Quantum Computing and its Implications on Cyber Security J.Lalu Prasad, Ch. Parvateesam, V. Kiran Kumar, Subrat Kumar Parida and Gadi Lava Raju	89349-89355
256	Bioinoculation Effect of Microbial Bioagents on Growth, Development and Nodulation Behaviour of <i>Elaeagnus latifolia</i> L. Seedlings Liza Handique and Vipin Parkash	89356-89373
257	Multi Target based Docking Studies of Phytochemicals of <i>Adenium obesum</i> for Potential Anti-Urolithiatic Agent T. Susithra, A. Priyanga, T. Bakkiyavathipriya, P. Sharon Reici, R.Vimalavathini and Kavimani S	89374-89383
258	Utilizing a Decision - Centric Framework in Social Networks to Predict user Engagement with Boolean Comments Manoj Kumar Srivastav, Somsubhra Gupta and Subhranil Som	89384-89397
259	Assessment of the Prevalence of Various Poisons and their Management in a Multispeciality Hospital Vaishnavi K, Silviya Jenifer J, Akshaya P, Jerad Suresh A, Seethalakshmi R, Shreedevi G, Ramakrishnan T V and Jayasutha Jayram	89398-89404
260	Isolation and Characterization of Bacteria Associated with the Intestine of Puffer Fish <i>Arothron stellatus</i> from Thoothukudi Coast P. Kanthimathi and P. J. Joslin	89405-89413



261	Advancing Cardiovascular Health through Predictive Modeling and Machine Learning Innovations Parul Patel and Tejas Shah	89414-89420
262	A Pharmacoeconomic Study of Kukkutanda Basti Dravya Puza Meinam and Dipeeka Surwase	89421-89424
263	Effect of Drop Jump Training on Agility and Balance in Recreational Badminton Players – An Experimental Study Dency Rashminkumar Singwala and Jayaprakash D	89425-89432
264	Isolation and Characterization of Phytoconstituents from the Chloroform Extract of <i>Corchorus depressus</i> (Linn.) Leaves Swapnil Ghanshyam Dhake and Milind Kashinath Patel	89433-89438
265	Excretion Regulation: An Important Parameter in Endosymbiont - Insect Relationship in <i>Megacopta cribraria</i> (F.) Rubina Azmeera Begum and Anjana Singha Naorem	89439-89443
266	<i>In-silico</i> Exploration, Phytochemical Profiling and Antihelminthic Activity of Methanolic Flower Extract of <i>Shorea tumbuggala</i> Bonala Sri Nithya, Gurrapu Deekshitha, Ramesh Sai Sree Priya, Shailaja Ande and S. Anuradha Bai	89444-89451
267	Proximate Analysis of Three Local Rice Varieties Available in Kokrajhar Town Market, Assam, India Sukanya Chakrabarty, Eliza Basumatary and Jwngma Narzary	89452-89456
268	Combinational Drug Therapeutic Approach for the Management of Atherogenic Mixed Hyperlipidemia Mohammad Bakhatwar, Sumant Saini, D Purnima Yadav, Rajeswari Aleti and Mamatha Kola	89457-89466
269	Robust Control System for Mitigating Power Quality Issues in Solar-based Dynamic Voltage Restorer Integrated with Battery Energy Storage Supraja Ambati, D. Narasimha Rao and Pokala Sumathi	89467-89474
270	Epidemiological Assessment of COVID-19 Prevalence using Immunological Methods in the Tirurangadi Region of Malappuram Gopika .K , Jisha .P, Santheep .S, Gladies Kamalam .S and Arun B	89475-89480
271	Advancements in Dental Formulations and Devices for Oral Hygiene - A Review Yashaschandra, Madhavi BLR and Vidya Hiranmayi Kasthala	89481-89495
272	Paddy Field Algal Diversity of Shivamogga Taluk, Karnataka, India Dharmendra	89496-89501
273	The Role of Microbiomes in Shaping Parasitoid - Host Dynamics Chandrik Malakar	89502-89507
274	Using Fuzzy Mathematical Modelling to Study on Stress, Depression, and Anxiety among Nurses Working in Hospitals T. Rajesh Kumar and B.Mohamed Harif	89508-89515
275	To Determine Quality of Life in Postmenopausal Women Zarana Khamar, Arvind Kumar, Tvisha Patel, Neelam Rathod, Kartik Patel	89516-89522
276	Navigation during Flood using BFS Algorithm Z. Sirajunisha, A. Jainub and M. Sheik Abdul Khader	89523-89528

277	Development and Validation of a Stability Indicating RP-HPLC Method for the Estimation of Dutasteride and Tamsulosin Hydrochloride in Pharmaceutical Formulations Rihana Syed, Haritha Pavani Kondeti, Radha Krishnaveni Vadlamudi, Sandeep Tadikonda, Lakshmaiah. Gona, Aswani. Talluri and Leela Pavai. Yanamadala	89529-89537
278	GC-MS Profiling of Bioactive Compounds in the Fruit Extract of <i>Gmelina asiatica</i> L. Radhakrishnan Jaya Prakash and Seventhilingam Kaliamoorthy	89538-89550
279	Formulation and Nutritional Assessment of Kheer Popsicles with Barnyard Millet: A Proximate Composition Perspective Amrita Chaudhary, Shaikh Adil, H B Bodhankar, Bhavesh Chavhan, Mukul Sain, Saim Shaikh	89551-89557
280	Journey through Innovation: A Comprehensive Review on the Evolution of Matrix Tablets and Insights from Successful Preceding Endeavours Nishanth. K, Srilatha K Sand Hindustan Abdul Ahad	89558-89572
281	Toxicological Profile of <i>Lantana camara</i> extracts (Flower and Leaf) on <i>Drosophila para<sup>bss1</sup></i> Fly an Epileptic Mutant Mahesh .V and B. P. Harini	89573-89577
282	An Effective Management of <i>Vipadika</i> (Palmoplantar Psoriasis) through Ayurveda Treatment Protocol- A Dual Patient Case Study Ketki Wategaonkar and Vijay Bhagat	89578-89585
283	Photochemical Screening and GCMS Analysis of <i>Codium decortcatum</i> (Green Algae) and <i>Porphyra indica</i> (Red Algae) as a Potential Feed for White Molly ( <i>Poecilia sphenops</i> ) Asma Fathima .S, Amtuz Zehra and Madiha Fathima. B	89586-89593
284	Physicochemical Characterization of USNODAKA Prepared in Earthenware: Exploring Composition and Properties Ankit Dangi, Neha Gadgil and Sudhakar Bhat	89594-89599
285	A Pilot Study on Prevalence of Gastro Intestinal Symptoms among College Students and its Association with Dietary Habits K. Rooba Nandhini and M. Thamarai Selvi	89600-89607
286	A Research to Investigate the Degree of Awareness on Management of Foreign Body Obstruction for Children among Mothers in a Selected Region of Puducherry L. Saraswathi, Nappinnai and R. Danasu	89608-89611
287	An Ayurvedic Management of Ardhavbhedaka - A Case Report Arshavikumari Chaudhari and Manjiri Keskar	89612-89618
288	Age and Gender Specific Normative Value of Pinch Strength in Gujarati Population Minal Dhairya Bhavsar, Bhavana Rajesh Gadhavi and Yagna Unmesh Shukla	89619-89629
289	Microbial Contribution in Petroleum Formation: A Rock Analysis Study Priyanuj Kander, Kalpana Deka Kalita and Prasenjit Talukdar	89630-89636
290	Standardization of Vellarugu Chooranam – A Poly Herbal Formulation J. K. Jayasree, R. Chithradevi, B. Prathisha, B. Neethi, J. Revathi, S. Sathiyavani, P. Shanmugapriya and R. Mathavan	89637-89647

**Editorial .....**

## **International Year of Quantum Science and Technology 2025**



*The United Nations recently declared 2025 as the International Year of Quantum Science and Technology (IYQ). 2025 was chosen as the year to recognize 100 years since the initial development of quantum mechanics. German Physicist Werner Heisenberg published a famous paper that led to the discovery of phenomena known as Quantum Mechanics. It is a global initiative aimed at strengthening national capacities in basic sciences and science education. Furthermore, it highlights the contribution of quantum science to our increased knowledge and understanding of the physical universe, and the important role of quantum science and technology in creating sustainable solutions. Quantum discoveries have implications for the fundamental understanding of chemistry, biology, astronomy etc.. These discoveries are a valuable resource for innovation, and have led to advances in devices such as lasers and transistors, as well as enabling real advances in technologies once considered purely speculative, such as quantum computers. Quantum Computing, combined with artificial intelligence (AI), can process large amounts of data and perform complex calculations quickly. Quantum Science may reveal how everything in the universe, beyond the reach of our senses, is connected to others through diverse dimensions. They are exploring the potential of quantum science to change gravity, its relationship to space and time.*

*The Union Cabinet of the Government of India approved the National Quantum Mission (NQM) on April 19, 2023 and allocated Rs. 6003.65 Crore. This mission will focus on developing highly sensitive magnetometers in nuclear systems and atomic clocks for precise timing, communication and navigation. Technologies that rely on quantum phenomena are all around us. The first wave of quantum technologies gave us the transistor. These devices formed the foundation of modern computers and digital communications. Quantum Mechanics has enabled MRI scanners for medical imaging, lasers, solar cells, electron microscopes, atomic clocks used for GPS and more!*

*Quantum Mechanics and Quantum Physics are used to solve challenges in future scientific discoveries. The role of quantum science is becoming essential in medicine, industry, agriculture, transportation artificial intelligence, space exploration etc. The highlight of this year is that students and researchers ought to contribute by linking their studies with quantum science. Apart from that, it is necessary to widely spread information about the importance of quantum science and its applications to the public. Awareness about quantum science can be raised among the general public by conducting various public awareness training seminars, workshops, quiz competitions etc. on quantum science in schools, colleges, universities and research centers. Furthermore, research institutions be supposed to conduct research related to quantum science. Our Indian Journal of Natural Sciences is proud to join you in the International Year of Quantum Science and Technology events and raise awareness among the public.*

**Editor in Chief**

**IJONS**

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