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MONTHLY APPRECIATION
MARCH -2025

CIRCULAR

Sir CV Raman Research Council, Office of Joint Registrar (Research) is happy to appreciate the staff members who have made due efforts to publish their papers in **WOS & Scopus** Indexed Publications, which are updated in the month of MARCH 2025. We are also pleased to announce the “**STAR FIRST AUTHOR**”, “**STAR CO-AUTHOR**”, and “**STAR RESEARCH SCHOLAR / STUDENT** of MARCH 2025.

	STAR FIRST AUTHOR (FA CATEGORY)	Dr.A.HARINI (ALLIED HEALTH SCIENCE)	
	STAR CO-AUTHOR (CA CATEGORY)	Dr.NAVEEN JEYARAMAN (SLMCH)	
	STAR RESEARCH SCHOLAR / STUDENT	Mr.M.NAVEEN KUMAR (MECHANICAL)	

The details of the author's publications are listed herewith, reference to MGR Research Engine @ <http://drmgrdu.researgence.com>

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION–MARCH 2025

PAPERTITLE	DECOLONISING GLOBAL HEALTH FUNDING: LOCAL LEADERSHIP FOR GLOBAL IMPACT		 Dr.HARINI ARUMUGASWAMY (AHS)
AUTHORS	HARINI ARUMUGASAMY, SARAVANAN SEKARAN		
JOURNALNAME	THE LANCET		
SNIP-23.15	IMPACTFACTOR-88.5	INDEXED-WOS/SCOPUS	

ABSTRACT:

We were intrigued by the recent Editorial emphasising philanthropy for health. Philanthropists contribute to substantial funding, and often dictate policies, research directions, and interventions based on their own priorities rather than the needs articulated by local communities and governments. This situation results in limited local capacity-building, marginalisation of Indigenous knowledge and contextual solutions, and a top-down approach rather than community-led health policies. Many low and middle-income countries (LMICs) depend on external donors due to historical underinvestment in their health systems, which is often a result of structural adjustment programmes imposed by the International Monetary Fund and the World Bank Group. This dependence perpetuates a cycle where high-income countries and their philanthropists continue to shape global health policies. Global health funding and policy decisions should prioritise leadership from affected regions. Initiatives such as the Centers for Disease Control and Prevention and the South Asian-led vaccine manufacturing initiatives are steps in this direction. WHO should be strengthened to lead independent, locally informed strategies rather than relying on a few billionaires or governments from high-income countries for funding. Global economic structures should not force LMICs into dependency, which includes debt relief, fair trade agreements, and public sector investments in health infrastructure to reduce reliance on external donors.

Although philanthropy has a role in global health, allowing a handful of ultra-wealthy individuals to dictate health policies undermines self-determination and perpetuates neocolonial structures. True decolonisation requires dismantling these power structures, amplifying local leadership, and ensuring that global health initiatives are shaped by the people most affected by them. We declare no competing interests.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	INHIBITION OF GSK-3B RESTORES DIFFERENTIATION POTENTIAL OF LATE-PASSAGE MESENCHYMAL STEM CELLS		 Dr. NAVEEN JEYARAMAN (SLMCH)
AUTHORS	KAVITHA GOVARTHANAN, RAJA SUNDARI MEENAKSHI SUNDARAM, ARTHI SUNIL RICHARD, SIVA CHANDER CHABATHULA, SECUNDA RUPERT, JESWANTH SATHYANESAN, RAMA SHANKER VERMA, NAVEEN JEYARAMAN, MADHAN JEYARAMAN, RAMYA LAKSHMI RAJENDRAN, PRAKASH GANGADARAN, BY		
JOURNALNAME	PHARMACEUTICALS		
SNIP-NIL	IMPACTFACTOR-4.8	INDEXED-SCOPUS/WOS	

ABSTRACT

Background/Objectives: Mesenchymal stem cells (MSCs) are regarded as a promising cell type with significant therapeutic benefits owing to their ease of isolation, maintenance, and characterization. However, repeated passages during cultural maintenance frequently result in cellular senescence, limiting their utility in regenerative medicine. **Methods:** We investigated the differentiation capability between early- (P3) and late-passage MSCs (>P15) and tested the potential of Wnt agonist 99021 to reverse MSCs using standard cell culture protocols that define minimal criteria for MSCs, primarily tri-lineage differentiation assays, biochemical staining, gene expression analysis, and senescence assays. **Results:** We initially noticed distinct signs of morphological aging between early- (P3) and late-passage MSCs (>P15) and further examined the differentiation capability between early- (P3) and late-passage MSCs (>P15). We found a diminished differentiation potential in late-passage MSCs. Our senescence assay also revealed >P15 cells were able to absorb the senescence dye, indicating that >P15 MSCs underwent senescence. We further demonstrated that CHIR 99021 reversed the differentiation-inhibitory potential-mediated impasse of late-passage MSCs by employing tri-lineage-specific differentiation assays, biochemical labelling, and gene expression analysis. Senescence assays after CHIR 99021 treatment also revealed no senescence dye uptake at all. **Conclusions:** Our findings demonstrated that CHIR 99021, a Wnt agonist, may aid in the reversal of MSC aging-related differentiation inhibition glitches and offer a proven protocol for rejuvenating late-passage MSCs. Thus, CHIR99021 treatment inherently reverts the tri-lineage potency in late-passage MSCs, and this method could be further employed to ensure a plentiful MSC source for clinical purposes.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	AN INCLUSIVE STUDY ON HYGROTHERMAL AGING EFFECTS ON TRIBOLOGICAL AND PHYSICAL PROPERTIES OF E-GLASS FIBER REINFORCED INTERPENETRATING POLYMER NETWORKS (IPNS) COMPOSITES		 Mr. M.NAVEEN KUMAR (MECHANICAL)
AUTHORS	M NAVEEN KUMAR, VIJAYAKUMAR K R, G SURESH, MEENAKSHI CHINNATHAMBI MUTHUKARUPPAN, R VEZHAVENDHAN, P CHANDRAMOHAN, G RATHINASABAPATHI		
JOURNALNAME	POLYMER COMPOSITES		
SNIP-NIL	IMPACTFACTOR-4.7	INDEXED-SCOPUS/WOS	

ABSTRACT:

Nowadays, polymeric composite materials are principally utilized in most structural and wear applications. Considerable amounts of foregoing works have emphasized the performance of polymeric composites subjected to (dry) sliding wear conditions, especially those strengthened with fiber reinforcements and other filler materials. Also, another omission has been witnessed regarding the materials while subjected to hygrothermal environments. In this study, the influence of hygrothermal (accelerated) aging on mechanical and tribological factors has been completely analyzed on the E-glass reinforced interpenetrating polymer network (IPN) composite laminates. Moreover, to additionally strengthen the IPN laminate, nanoclay filler materials have been infused into the matrix materials, such as 0%, 1%, 3%, 5%, 7%, and 9%. As the IPN matrix material, a blend of 70% epoxy and 30% polyurethane has been chosen. Additionally, to thoroughly investigate the physical strength of the IPN laminates during the hygrothermal aging, tests like water absorption, dynamic mechanical analysis, differential scanning calorimetry, tensile test, and wear analysis have been conducted on dry specimens and samples subjected to hygrothermal aging environments by placing the laminates in temperatures of 50°C, 60°C, and 70°C. As a result, it has been found that dry specimens with a nanoclay proportion of 5% dispersion have apparently excelled in all the investigations conducted on the IPN specimens rather than the hygrothermal aging specimens. Also, to understand the microscopic changes in the laminates, scanning electron microscopic investigations were carried out to explore the possibility of using the laminates in marine applications.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION–MARCH 2025

PAPERTITLE	ROLE OF TRANSCRIPTOMICS IN THE STUDY OF ORAL CANCER		 Dr. VIDYA REKHA UMAPATHY (TMDCH)
AUTHORS	PRABHU MANICKAM NATARAJAN, VIDHYA REKHA UMAPATHY		
JOURNALNAME	FRONTIERS IN ORAL HEALTH		
SNIP-0.881	IMPACTFACTOR-3.1	INDEXED-WOS/SCOPUS	

ABSTRACT:

Oral cancer, a formidable public health challenge, demands innovative approaches for early detection and effective treatment. This review explores the transformative role of transcriptomics in oral cancer research, leveraging cutting-edge technologies to decode the RNA landscape of tumors. We delve into RNA sequencing (RNA-seq), single-cell RNA sequencing (scRNA-seq), long non-coding RNA sequencing (lncRNA-seq), microarray analysis, and small RNA profiling, showcasing their unique contributions to unraveling the complexities of oral cancer. By mapping gene expression patterns, identifying biomarkers, and understanding tumor heterogeneity at an unprecedented resolution, transcriptomics offers powerful insights into the molecular mechanisms driving oral cancer. Furthermore, we highlight how these approaches pave the way for personalized medicine, enabling precise therapeutic interventions and innovative treatment strategies. The review also addresses the future directions and challenges in the field, emphasizing the need for advanced computational tools and interdisciplinary collaboration to fully harness the potential of transcriptomics in transforming oral cancer care.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION-MARCH 2025

PAPERTITLE	INVESTIGATING THE CYTOPROTECTIVE EFFECT OF SYZYGIUM AROMATICUM AND ELETTARIA CARDAMOMUM IN ARSENIC-INDUCED TOXICITY IN THE HCT-116 CELL MODEL: A LUMINESCE-BASED STUDY		 Dr.GEETHA BIRUDALA (PHARMACY)
AUTHORS	VINOD KUMAR NELSON, SELVA KUMAR RADHA KRISHNAN, AYED A DERA, SYED PARWEEN ALI, M YASMIN BEGUM, GOWRI SANKARA RAO BURLE, PUNNA RAO SURYADEVARA, GEETHA BIRUDALA		
JOURNAL NAME	LUMINESCENCE		
SNIP-0.692	IMPACTFACTOR-3	INDEXED-WOS/SCOPUS	

ABSTRACT:

Arsenic is a highly menacing environmental pollutant that substantially affects the quality of life, even in trace. It develops various diseases through increasing intracellular ROS, which interacts with vital organs. Chelation therapy is currently recommended for arsenic toxicity. However, these treatment options are not specific and only target symptoms. Besides, they also show toxic effects and irreversibly damage crucial organs. Hence, there is an urgent need for a potential and safer therapeutic strategy that can prevent arsenic toxicity. Therefore, in this study, we have investigated SA and EC individually and in combination against arsenic toxicity in HCT-116 cells. The results obtained from various experiments revealed that both plant materials comparably inhibited arsenic-induced cellular damage by increasing the antioxidant function. Conversely, combining both plants showed even better cyto-protection against arsenic toxicity. The FT-IR and HPLC analysis of the active fractions revealed the presence of polyphenol compounds (ferulic acid and gallic acid) responsible for the pharmacological effect. This finding is unique because no cytoprotective impact has been reported yet on this combination.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	TANNINS AS THERAPEUTIC IN MANAGING OBESITY AND BEYOND		 Dr.ANKUL SINGH S (PHARMACY)
AUTHORS	ANKUL SINGH S, RUKAIAH FATMA BEGUM, SRISHTI SINGH, THIRUMAL MARGESAN.		
JOURNALNAME	CURRENT PHARMACOLOGY REPORTS		
SNIP-NIL	IMPACTFACTOR-2.2	INDEXED-SCOPUS/WOS	

ABSTRACT

Purpose of Review: Obesity has emerged as a critical health concern, associated with numerous chronic diseases. Traditional interventions, including chemical treatments and surgeries, often lead to adverse effects. Tannins are categorized into ellagitannins, gallotannins, condensed tannins, and complex tannins, positioning them as key components in holistic obesity management. **Recent Findings:** This review explores the potential of tannins—polyphenolic compounds found in various plants—as natural anti-obesity agents. Tannins may inhibit fat absorption, regulate metabolic processes, and alleviate oxidative stress. Additionally, they show promise in broader applications, including disease prevention and skin treatment. **Summary:** We discuss the mechanisms through which tannins impact obesity, highlighting their effects on satiety hormones, food consumption, and insulin sensitivity.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	ARTIFICIAL INTELLIGENCE ENHANCED CHATBOT BOOM: A SINGLE CENTER OBSERVATIONAL STUDY TO EVALUATE ASSISTANCE IN CLINICAL ANESTHESIOLOGY		 Dr.SOWMYA MANJUNATH JOIS (RRMCH)
AUTHORS	SOWMYA MANJUNATH JOIS, RANGALAKSHMI SRINIVASAN, IYENGAR SOWMYA MADIHALLI JANARDHAN, MAHESH CHETHANA, DEVI LAIRENJAM DEEPA, NAMACHIVAYAM ARUN KUMAR		
JOURNALNAME	JOURNAL OF ANAESTHESIOLOGY CLINICAL PHARMACOLOGY		
SNIP-0.618	IMPACTFACTOR-1.1	INDEXED-WOS/SCOPUS	

ABSTRACT:

Background and aims: The field of anaesthesiology and perioperative medicine has explored advancements in science and technology, ensuring precision and personalized anesthesia plans. The surge in the usage of chat-generative pretrained transformer (Chat GPT) in medicine has evoked interest among anesthesiologists to assess its performance in the operating room. However, there is concern about accuracy, patient privacy, and ethics. Our objective in this study is to assess whether Chat GPT can provide assistance in clinical decisions and compare them with those of resident anesthesiologists.

Material and methods: In this cross-sectional study conducted at a teaching hospital, a set of 30 hypothetical clinical scenarios in the operating room was presented to resident anesthesiologists and Chat-GPT 4. The first five scenarios out of 30 were typed with three additional prompts in the same chat to determine if there was any detailing of answers. The responses were labeled and assessed by three reviewers not involved in the study. The interclass coefficient (ICC) values show variation in the level of agreement between Chat GPT and anesthesiologists. For instance, the ICC of 0.41 between A1 and Chat GPT indicates a moderate level of agreement, whereas the ICC of 0.06 between A2 and Chat GPT suggests a comparatively weaker level of agreement. In this study, it was found that there were variations in the level of agreement between Chat GPT and resident anesthesiologists' responses in terms of accuracy and comprehensiveness of responses in solving intraoperative scenarios. The use of prompts improved the agreement of ChatGPT with anesthesiologists.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	DOES THE ADDITION OF AN ADJUVANT SUPERFICIAL CERVICAL PLEXUS BLOCK TO INFERIOR ALVEOLAR NERVE BLOCK ENHANCE INTRAOPERATIVE PAIN CONTROL IN MANDIBULAR THIRD MOLAR SURGERY? A RANDOMIZED CONTROLLED TRIAL		
AUTHORS	AGALYAH KALYAN KUMAR, VIVEK NARAYANAN		
JOURNALNAME	JOURNAL OF MAXILLOFACIAL AND ORAL SURGERY		
SNIP-NIL	IMPACTFACTOR-0.6	INDEXED-SCOPUS/WOS	

Dr.AGALYAH
KALAYAN KUMAR
(TMDCH)

ABSTRACT

Introduction: Accessory innervation from the cervical plexus is attributed as a plausible explanation for inadequate pain control during the surgical removal of mandibular impacted third molars. This study assessed the effectiveness of adjuvant superficial cervical plexus block (SCPB) compared to the conventional inferior alveolar nerve block (IANB) for managing intraoperative pain during mandibular third molar surgery. **Materials and methods:** A double-blind, randomized trial with 64 patients undergoing mandibular third molar surgery was divided into two groups of 32 patients. Group A received IANB alone, while Group B received IANB with SCPB. Intraoperative pain was the primary outcome, measured by a visual analogue scale. Pain on the first and fifth post-operative days was a secondary outcome. Paired t-tests analysed the data, with $p < 0.05$ indicating significance. **Results:** Statistical analysis revealed that Group A patients who received only IANB had significantly higher VAS pain scores both during the intraoperative procedure and on the first post-operative day ($P < 0.05$) compared to Group B, who received the adjuvant SCPB injection. **Conclusion:** Combining SCPB with IANB effectively reduced intraoperative pain during mandibular impacted tooth removal and improved patient comfort on the first post-operative day. This highlights SCPB's value as an adjuvant for better pain management in mandibular third molar surgery.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	ASSOCIATION OF SEVERITY OF CORONARY ARTERY DISEASE WITH DURATION OF RISK FACTORS IN PATIENTS UNDERGOING CORONARY ANGIOGRAPHY		
AUTHORS	THIRUMURUGAN E, R KARTHICK, J JAYASHREE, V HINDUMATHI, G JASMINE, J JEEVA.		
JOURNALNAME	RESEARCH IN CARDIOVASCULAR MEDICINE		
SNIP-NIL	IMPACTFACTOR-0.1	INDEXED-WOS	
Dr.THIRU MURUGAN E (AHS)			

ABSTRACT

Although many cardiovascular risk factors (CVRFs) have been established to be associated with clinical event rates, it is unclear whether the duration of such risk factors relates to atherosclerotic plaque burden in the Indian population. Results: The study included 221 patients admitted over a year with a confirmed diagnosis of coronary artery disease (CAD) based on an elective coronary angiogram at a tertiary care hospital in Tamil Nadu. Age, gender, weight, and height, as well as the duration of diabetes and hypertension, were part of the baseline demographic information. Coronary angiography data were recruited using databases from commercially available cath laboratory machines. The risk of developing CAD increased threefold in diabetic patients with a long-term duration of >6 years. Furthermore, the risk of developing CAD was 3.8 times higher in hypertension patients with a long-term duration of > 5 years versus those with a short-term duration of < 5 years. Conclusions: We have established a direct correlation between the duration of CVRFs, such as diabetes mellitus and hypertension, and the extent of atherosclerotic burden.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	INSIGHTS OF SHARED DECISION-MAKING AND PERSONALIZED TREATMENT IN ORTHOPEDICS – A QUALITATIVE SYSTEMATIC REVIEW		 Dr.SUREKHA JAGANMOHAN (SLMCH)
AUTHORS	DHEERAJ MAKKAR, RAVI SAUHTA, SUREKHA JAGANMOHAN, T PRIYADHARSHINI, VIJI DEVANAND		
JOURNALNAME	JOURNAL OF CLINICAL ORTHOPAEDICS AND TRAUMA		
SNIP-1.042	IMPACTFACTOR-NILL	INDEXED-SCOPUS	

ABSTRACT:

The shift from a paternalistic model to a patient-centered approach in medical decision-making has significantly transformed the doctor-patient relationship, especially in India. The rise of the Internet and patient education resources has empowered patients to actively participate in their healthcare decisions. A systematic review was registered in PROSPERO [CRD420250652673] and was conducted using PubMed, Scopus, Web of Science (WoS), and Google Scholar, focusing on English-language publications about shared decision-making (SDM) in total joint replacement. Randomized controlled trials, studies on decision-making preferences, and disease-specific decision aids were included. Exclusion criteria encompassed advance directives and lifestyle-related decisions. Results: SDM models have gained prominence globally, with various nations integrating patient rights and decision-making tools into their healthcare systems. Different patient care models, including paternalistic, informed, and SDM, have been critically examined for their advantages and limitations. The review highlights the evolving nature of patient involvement in medical decisions, emphasizing the importance of SDM in aligning treatments with patient preferences and values.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	IMPACT OF CURCUMIN ON GUT MICROBIOME		 Dr.NAVEEN JEYARAMAN (SLMCH)
AUTHORS	SANGEETHA BALAJI, NAVEEN JEYARAMAN, MADHAN JEYARAMAN, SWAMINATHAN RAMASUBRAMANIAN, SATHISH MUTHU, GABRIEL SILVA SANTOS, LUCAS FURTADO DA FONSECA, JOSÉ FÁBIO LANA		
JOURNALNAME	WORLD JOURNAL OF EXPERIMENTAL MEDICINE		
SNIP-0.613	IMPACTFACTOR-NIL	INDEXED-SCOPUS	

ABSTRACT

The intricate interplay between natural compounds like curcumin and the gut microbiome has gained significant attention in recent years due to their potential therapeutic implications in various health conditions. Curcumin, a polyphenolic compound derived from turmeric, exhibits diverse pharmacological properties, including anti-inflammatory, antioxidant, and anticancer effects. Understanding how curcumin modulates gut microbiota composition and function is crucial for elucidating its therapeutic mechanisms. This review examines the current literature on the interactions between curcumin and the gut microbiome. A systematic search of relevant databases was conducted to identify studies investigating the effects of curcumin on gut microbial diversity and abundance. Key findings from studies exploring curcumin's efficacy in neurological disorders, gastrointestinal diseases, and metabolic dysfunction are synthesized and discussed. Studies have demonstrated that curcumin supplementation can modulate gut microbiota composition and function, leading to beneficial effects on gut health and homeostasis. Mechanisms underlying curcumin's therapeutic effects include immune modulation, neuroprotection, and inflammation regulation. However, challenges such as poor bioavailability and safety concerns remain significant hurdles to overcome. The interactions between curcumin and the gut microbiome hold promise for therapeutic interventions in a diverse range of health conditions. Further research is needed to optimize curcumin formulations, improve bioavailability, and address safety concerns.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	AETIOLOGY OF HEADACHE: A PROSPECTIVE OBSERVATIONAL STUDY FROM SOUTHERN INDIA		 Dr.NAVEEN KUMAR BALASUBRAMANI (ACSMCH)
AUTHORS	NAVEEN KUMAR BALASUBRAMANI, DIANITTA DEVAPRIYA VERONICA JOSEPH		
JOURNALNAME	JOURNAL OF CLINICAL AND DIAGNOSTIC RESEARCH		
SNIP-0.409	IMPACTFACTOR-NIL	INDEXED-WOS	

ABSTRACT:

Introduction: Headache is a widely prevalent symptom that greatly affects the quality of life. Yet, the disability caused by headache disorders does not receive the attention it deserves. Identifying the exact aetiology and classifying headaches helps focus on appropriate treatments that can reduce their burden on individuals and society. **Aim:** To examine the common aetiologies of headaches and estimate the prevalence of rhinologic and non-rhinologic headaches. **Materials and Methods:** The present prospective observational study was carried out in the Otorhinolaryngology Outpatient Department (OPD), Yashoda Hospital, Hyderabad, Telangana, India, between December 2016 and December 2018. The study included 140 patients aged 16-55 years who presented with complaints of headache. These patients underwent a complete general and clinical examination and were subsequently investigated to classify their headaches as either rhinologic or non-rhinologic, as well as acute or chronic. Those classified under rhinologic headaches who required surgery were subjected to surgical intervention. The other causes of headache were treated accordingly. The treatment response of chronic headache cases was followed for 6 months to assess complete symptom remission. Statistical analysis was performed using International Business Machines (IBM) Statistical Package for the Social Sciences (SPSS) software version 27.0, Statistics for Windows (IBM Corporation, New York, United States, 2021). **Results:** Out of the total 140 participants included in the study, 80 (57.14%) were males, and 60 (42.85%) were females. The overall mean Standard Deviation (SD) age of the study population was 34±9.66 years. Of the 140 patients included in the study, 44 (31.42%) had acute headaches, and 96 (68.57%) had chronic headaches. Among the acute cases, 22 (50%) were due to acute sinusitis. Among the chronic headaches, 33 (34.37%) were cases of chronic migraine. **Conclusion:** Headache is a common clinical symptom with different aetiopathogeneses, mandating proper evaluation, which helps in the precise diagnosis of the disease and appropriate management. The study results showed acute sinusitis as the most common cause of acute headache and chronic migraine as the most common cause of chronic headache.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	EFFICACY OF WHOLE-BODY VIBRATION TRAINING AND YOGA ALONG WITH RESISTANCE BAND EXERCISE FOR URINARY INCONTINENCE: A PILOT STUDY		
AUTHORS	THIRULOGACHANDAR GUNASEKAR, V RITHEEKA, D MONESH, V SARAVANAN, B SHIVARANJANI, MURALI RAVI, SARASWATHI K, MUTHULAKSHMI KUMARESAN.		
JOURNALNAME	JOURNAL OF CLINICAL AND DIAGNOSTIC RESEARCH		
SNIP-0.409	IMPACTFACTOR-NIL	INDEXED-WOS	
			Dr.THIRULOGA CHANDAR GUNASEKAR (PHYSIOTHERAPY)

ABSTRACT

Urinary incontinence is the involuntary loss or leakage of urine. It occurs in both sexes but is more frequent in women. The most common subtypes are stress and urge incontinence. A patient exhibiting symptoms of both stress and urge incontinence is said to have mixed incontinence. Whole Body Vibration Training (WBVT) is a novel intervention reported as an effective training method for muscle enhancement and has recently been added as a modality for strengthening the pelvic floor muscles. Pelvic floor exercises performed using a resistance band have been proven to reduce urinary incontinence and improve Quality of Life (QoL). Yoga is a mind-body practice that is increasingly popular in the West, particularly among women, and involves the practice of physical postures. Aim: To assess the efficacy of whole-body vibration training and yoga combined with resistance band exercises for urinary incontinence. This pilot study was conducted at Dr. MGR Research Institute, Department of Physiotherapy, Chennai. A total of 30 married multiparous women with any subtype of urinary incontinence, aged between 20 and 70 years, were randomly assigned to two groups. The duration of the study included 45-minute sessions three days a week for six weeks, starting in January 2022 and ending in March 2022. Group A (n=15) was assigned to WBVT with resistance band exercises, while Group B (n=15) was assigned to yoga with resistance band exercises. Pre- and post-test measures were taken using Pelvic Floor Muscle strength (PFMs), the Michigan Incontinence Symptom Index (M-ISI), and the Incontinence Quality of Life (I-QoL) questionnaire scores. Data were statistically analyzed using paired t-tests and independent t-tests. Results: In this study, the statistical post-test mean values of Group B (yoga with resistance band exercises) showed significant improvement in pelvic floor muscle strength (24.08 ± 1.70) and M-ISI (12.06 ± 2.52). The Incontinence Quality of Life (I-QoL) scores showed significant improvement in both groups. Conclusion: This study concluded that yoga combined with resistance band exercises was effective in improving pelvic floor muscle strength and reducing the severity of urinary incontinence symptoms. The quality of life improved in both groups of patients with urinary incontinence.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	EXPLORING THE EFFECTS OF PILOT INJECTION TIMING ON CRDI ENGINE OPERATION UNDER VARYING LOADS	
AUTHORS	RANGANATHAN ANBALAGAN, SENDILVELAN S, LARISSA SASSYKOVA, KUPPUSAMY RAJAN, KATHIRVELU BHASKAR	
JOURNALNAME	JOURNAL OF CHEMICAL TECHNOLOGY AND METALLURGY	
SNIP-0.377	IMPACTFACTOR-NIL	INDEXED-SCOPUS



Dr.RANGANATHAN
ANBALAGAN
(MECH)

ABSTRACT

In this study, a single-cylinder CRDI engine running on 20MEWCO (20 % Methyl Esters of Waste Cooking Oil) Oil + 80 % diesel) Fuel was used to test various pilot injection timing modifications, including 34°, 36°, and 38° BTDC with a dwell period of 15° and 10 % pilot mass at a pressure of 500 bar. The analysis focused on cylinder pressure, heat release rate, fuel consumption, brake thermal efficiency, and emissions of carbon monoxide (CO), hydrocarbons (HC), nitrogen oxides (NOx), and smoke. As a result of advanced pilot injection timings, at 38° BTDC, the cylinder pressure, heat release rate, and brake thermal efficiency were 63.73 bar, 34.04 J/°CA, and 30.74 %, respectively. Emissions of HC, CO, and smoke increased significantly, while NOx emissions were significantly reduced. Advanced pilot injection timing at maximum load caused a decrease in ignition delay, while shorter combustion duration resulted in more efficient combustion.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	MULTIPLE ROLES OF BATTERY ENERGY STORAGE SYSTEMS IN PLUG-IN ELECTRIC VEHICLES		B SRAVAN KUMAR (ECE)
AUTHORS	B SRAVAN KUMAR, RAMESH L, L PADMA SURESH.		
JOURNALNAME	AIP CONFERENCE PROCEEDINGS		
SNIP-0.291	IMPACTFACTOR-NIL	INDEXED-SCOPUS	

ABSTRACT

The potential of plug-in electric vehicles (PEVs), energy storage systems in power systems, and small wind farms has been investigated in this work. From the study of the different wind turbines, it proves that the permanent magnet synchronous generator (PMSG) system is one of the best ways to integrate power from the wind power systems to the grid. The presented PMSG was capable of capturing maximum power from wind energy even when there is fluctuating wind speed. The system is modeled with an effective three-wind turbines and the respective charging stations with the help of MATLAB. Four charging points present in the university campus were selected for analysis. The impact of battery energy storage systems (BESS) on PEV vehicles was studied. The BESS controller was modelled in MATLAB, and the applications of BESS, such as load levelling, peak shaving, and load shifting, were presented. The feasibility of the proposed system was checked through several case study analyses for the effective implementation in the University.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	ELECTRIC VEHICLE AND CHARGING STATION: A LITERATURE REVIEW, IMPACT, AND PROSPECTS FOR FUTURE GROWTH		 Ms.P S MAHITHA (ECE)
AUTHORS	P S MAHITHA, RAMESH L.		
JOURNALNAME	AIP CONFERENCE PROCEEDINGS		
SNIP-0.291	IMPACTFACTOR-NILL	INDEXED-SCOPUS	

ABSTRACT:

This study aims to investigate the role of diffusion-weighted imaging (DWI) in enhancing the diagnostic accuracy of adult posterior fossa tumours. A prospective cross-sectional study was conducted involving 20 patients with suspected CNS posterior fossa tumour. MRI scans were performed using a 1.5 Tesla machine with appropriate sequences, including DWI. Data analysis was performed using descriptive statistics. Results: The study revealed that the majority of posterior fossa tumours occurred in the age group of 61-70 years, with medulloblastoma being the most common tumour subtype. Male patients were more prevalent than females, and DWI showed hyperintensity in the majority of lesions. The reported sensitivity and specificity of DWI were high, indicating its effectiveness in tumour evaluation. Conclusion: In conclusion This study provides valuable insights into the epidemiology, clinical features, and radiological characteristics of adult posterior fossa tumours. It underscores the significance of advanced imaging techniques like DWI in improving diagnostic accuracy and guiding clinical management decisions for these challenging neoplasms.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	THE IMPACT OF IRON OXIDE NANOPARTICLES ON CRUDE OIL BIODEGRADATION WITH BACTERIAL CONSORTIUM		 Dr.SUGANAYA KALAIARASU (BIO-TECHNOLOGY)
AUTHORS	SUGANYA KALAIARASU, K J SHARMILA, SANTHIYA JAYAKUMAR, SREEKUMAR PALANIKUMAR, PRIYA CHOKKALINGAM.		
JOURNALNAME	NATURE, ENVIRONMENT, AND POLLUTION TECHNOLOGY		
SNIP-0.263	IMPACTFACTOR-NIL	INDEXED-SCOPUS	

ABSTRACT:

This study was performed to determine the effect of synthesized iron oxide nanoparticles on the consortium of isolated bacterial strains from the crude oil-contaminated site. The iron oxide nanoparticle (FeNPs) was synthesized by the chemical co-precipitation method and confirmed with its characterization results such as UV-spectroscopy, X-ray Diffraction (XRD), High-Resolution Scanning Electron Microscopy (HR-SEM), Zeta potential, and Particle Size Analyzer studies. The isolates were cultured in LBBH (Luria-Bertani and Bushnell Haas) medium containing crude oil as a carbon source with incubation for 7 days. This study was performed using FeNPs with four different concentrations (10, 50, 100, and 150mg) incorporated with the isolated microbes clubbed as a consortium. The rate of biodegradation was investigated by gas chromatography-mass spectrometry (GC-MS) analysis. By comparing the control sample (crude oil) there was a better degradation in the FeNPs added bacterial culture than in the consortium degradation. The obtained results conclude that studying different concentrations of FeNPs with the consortium of isolated microbes showed degradation differences, whereas the 150mg concentration has a better degradation effect compared to other variations. It should be carried out to avoid the agglomeration of nanoparticles by improving their biocompatibility and quality to influence the biodegradation of crude oil.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	RADIOLOGICAL EVALUATION OF THE LENGTH OF THE STYLOID PROCESS OF THE TEMPORAL BONE IN MULTI-DETECTOR CT IMAGES- A RETROSPECTIVE STUDY		 Dr.SARALA HOSUR SRIRAMAPPA (RRMCH)
AUTHORS	SARALA HOSUR SRIRAMAPPA, PRAVIN GU, JYOTHILAKSHMI GL, SINDHU N		
JOURNALNAME	INTERNATIONAL JOURNAL OF ANATOMY AND RESEARCH		
SNIP-0.155	IMPACTFACTOR-NIL	INDEXED-SCOPUS	

ABSTRACT

Background: The styloid process (SP) is a cylindrical piece of bony projection from the petrous part of the temporal bone. SP is a clinically important anatomical entity due to pathologies caused by changes in its length. The average length is 25mm- 30mm; measurements of 30mm & greater indicate elongation of SP. It is necessary to know the normal anatomy of the structures involved & standardized morphometric measurements to evaluate the pathological changes related to the disease. **Objectives:** To evaluate the Length of the styloid process of the temporal bone using 3D reconstructed images of MDCT (Multi-detector Computed Tomography). To investigate the possibility of the occurrence of Eagle's syndrome in asymptomatic individuals. **Materials and methods:** This study was conducted on CT (Computed Tomography) images of 400 patients who underwent paranasal and Head and neck MDCT between March 2024 and June 2024. The images were assessed retrospectively. The length of the styloid process from its attachment on the temporal bone to the tip was measured in 3D reconstructed images using the Volume rendering technique (VRT) and an in-built dedicated workstation. The measurements were undertaken in centimetres, and the data obtained were tabulated and analysed statistically. The mean length of the styloid process among 400 CT images evaluated is 3.1 ± 0.5 cm on the right side and 3.3 ± 0.61 cm on the left side. Mean length of SP in males is 3.13 ± 0.57 cm on the right side and 3.12 ± 0.56 cm on the left side, in females it is 3.07 ± 0.62 cm and 3.08 ± 0.68 cm on the right and left side, respectively. Elongated Styloid process (≥ 3 cm) is observed in 60.5% and 59% on the right and left side, respectively. Elongated SP is noted in 23.75% of males and 21.75% of females. **Conclusion:** The average length of the styloid process is consistent with the results of other studies reported in the literature. This data guides the clinicians in diagnosing Eagle's syndrome in asymptomatic individuals. It can also help clinicians to avoid misinterpretation of symptoms like tonsillar pain, pain of dental or muscular origin.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION–MARCH 2025

PAPERTITLE	VALIDATION OF SALIVARY MICRORNA 301A AS A POTENTIAL NON-INVASIVE DIAGNOSTIC BIOMARKER IN GASTRIC CARCINOMA	
AUTHORS	THANGAVELU RADHIKA, GOPALAKRISHNAN S, R SATHISH MUTHUKUMAR, RAJESWARI HARI, MADHAN JEYARAMAN, G VIJETHA.	
JOURNALNAME	JOURNAL OF ORAL AND MAXILLOFACIAL PATHOLOGY	
SNIP-NIL	IMPACTFACTOR-NIL	INDEXED-SCOPUS



Dr.THANGAVELU
RADHIKA
(TMDCH)

ABSTRACT:

Early detection of cancer is key to a good prognosis and improved survival rate. Gastric cancer (GC) is fatal and presents with a poor prognosis as it is usually diagnosed only at advanced stages. Saliva is emerging as a preferred diagnostic tool due to its advantages, including non-invasiveness, ease of collection, and cost-effectiveness. Salivary microRNAs (MIRNAs) are more reliable due to their stability, resistance to degradation, and their abundant involvement in cancer progression. To estimate and validate the potential of salivary MIRNA 301a in the diagnosis of Gastric cancer. This Cross-sectional study comprised 60 GC patients (Group I) and 60 normal controls (Group II). Fold change (FC) values for serum and salivary MIRNA301a levels were estimated using real-time polymerase chain reaction (RT-PCR) and compared between the study groups. Correlation between the serum and salivary miRNA301a levels was also evaluated. MiRNA301a levels were compared and correlated with the clinical stage and histopathological grades of GC. The mean FC of serum (Mean $\pm$ SD = 2.62 ± 0.75 , Mean Rank = 90.5) and salivary (Mean $\pm$ SD = 2.03 ± 0.56 , Mean Rank = 90.5) MIRNA301a was significantly higher in Gastric cancer patients compared to controls (Mean $\pm$ SD = 0.99 ± 0.004 , Mean Rank = 30.5). Salivary MIRNA301a levels exhibited a significant positive correlation with serum MIRNA301a in gastric cancer patients ($r = 0.941$). The mean FC of serum and salivary microRNA 301a exhibited significant correlation with the clinical stages and histopathological grades of GC. Conclusion: Salivary miRNA301a is a potential reliable diagnostic tool for early screening of Gastric cancer

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION–MARCH 2025

PAPERTITLE	SYNERGIES UNLEASHED: THE CONVERGENCE OF AI AND EDGE COMPUTING IN TRANSFORMATIVE TECHNOLOGIES	
AUTHORS	SHOBARANI RANGANATHAN, DHIVYA PADMANABHAN, G SAVITHA, S SANTHI, K SURYA PRAKHASH, R KAVITHA	
JOURNALNAME	EDGE OF INTELLIGENCE: EXPLORING THE FRONTIERS OF AI AT THE EDGE	
SNIP-NIL	IMPACTFACTOR-NIL	INDEXED-SCOPUS



Dr.SHOBARANI RANGANATHAN (CSE)

ABSTRACT:

A revolutionary new trend in technology is emerging at the intersection of artificial intelligence and edge computing, which merges the power of AI with decentralized processing on the periphery of networks. Latency, bandwidth consumption, privacy, and security are some of the major issues that this convergence attempts to resolve. Edge computing lowers latency and bandwidth needs by processing data closer to its source. Distributed architectures, enhanced privacy, and real-time decision-making are all made possible by integrating AI at the edge. There are still obstacles to this convergence, but innovations like federated learning and edge AI chips are helping to overcome them. 5G network integration and hybrid cloud-edge architecture development bodes well for the future. By combining AI with edge computing, new solutions are becoming possible in a wide variety of sectors.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	CROSS-TALK BETWEEN OSTEOPOROSIS AND GUT MICROBIOME		 Dr.NAVEEN JEYARAMAN (SLMCH)
AUTHORS	SHIVA SHANKAR JHA, NAVEEN JEYARAMAN, MADHAN JEYARAMAN, SWAMINATHAN RAMASUBRAMANIAN, SATHISH MUTHU, GABRIEL SILVA SANTOS, LUCAS FURTADO DA FONSECA, JOSÉ FÁBIO LANA.		
JOURNALNAME	WORLD JOURNAL OF ORTHOPEDICS		
SNIP-NILL	IMPACTFACTOR-NILL	INDEXED-SCOPUS/WOS	

ABSTRACT:

The gut microbiome comprises a vast community of microbes inhabiting the human alimentary canal, playing a crucial role in various physiological functions. These microbes generally live in harmony with the host; however, when dysbiosis occurs, it can contribute to the pathogenesis of diseases, including osteoporosis. Osteoporosis, a systemic skeletal disease characterized by reduced bone mass and increased fracture risk, has attracted significant research attention concerning the role of gut microbes in its development. Advances in molecular biology have highlighted the influence of gut microbiota on osteoporosis through mechanisms involving immunoregulation, modulation of the gut-brain axis, and regulation of the intestinal barrier and nutrient absorption. These microbes can enhance bone mass by inhibiting osteoclast differentiation, inducing apoptosis, reducing bone resorption, and promoting osteoblast proliferation and maturation. Despite these promising findings, the therapeutic effectiveness of targeting gut microbes in osteoporosis requires further investigation. Notably, gut microbiota has been increasingly studied for its potential in early diagnosis, intervention, and as an adjunct therapy for osteoporosis, suggesting a growing utility in improving bone health. Further research is essential to fully elucidate the therapeutic potential and clinical application of gut microbiome modulation in the management of osteoporosis.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION–MARCH 2025

PAPERTITLE	LASER SURFACE MODIFICATION OF IMPLANT MATERIALS		 DrJAYAPRAKASH JEYARAJU (MECHANICAL)
AUTHORS	BUPESH RAJA KRISHNAMOORTHY V, SATHISH KANNAN, JAYAPRAKASH JEYARAJU , V SELVARANI, ABEL J FRANCIS, A JAYAGANTHAN.		
JOURNALNAME	ADVANCED MACHINING AND MICROMACHINING PROCESSES		
SNIP- NIL	IMPACTFACTOR- NIL	INDEXED- SCOPUS	

ABSTRACT:

Laser surface modification techniques have emerged as powerful tools for enhancing the performance of implant materials in medical applications. This book chapter provides a comprehensive overview of laser-based surface modification methods, including laser ablation, surface melting, alloying, cladding, and patterning. The chapter discusses the principles, methodologies, and applications of these techniques, emphasizing their role in improving the biocompatibility, bioactivity, and antimicrobial properties of implant surfaces. Key factors influencing the efficacy of laser surface modification, such as laser parameters and material properties, are examined, and case studies from orthopedic, dental, and cardiovascular implants are presented to illustrate their clinical relevance. Furthermore, the chapter discusses future trends and prospects in the field, including advancements in laser technology and integration with additive manufacturing processes. Overall, this book chapter serves as a valuable resource for researchers, clinicians, and industry professionals interested in optimizing implant therapies through laser surface modification.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	UTILITY OF ONLINE INSTRUMENTATION AND SUPERVISED MACHINE LEARNING TO DETECT INDUSTRIAL DISCHARGE		 Dr.CHAKRAVARTHY V J (COMPUTER APPLICATIONS)
AUTHORS	CHAKRAVARTHY V J		
JOURNALNAME	ZERO LIQUID DISCHARGE WASTEWATER TREATMENT SYSTEM		
SNIP-NIL	IMPACTFACTOR-NIL	INDEXED-SCOPUS	

ABSTRACT

The detection of industrial discharge in wastewater systems is critical for maintaining environmental standards and public health. This chapter explores the utility of online instrumentation combined with supervised machine learning (ML) techniques for real-time monitoring and detection of industrial pollutants. The chapter begins by highlighting the limitations of traditional methods for detecting industrial discharges, including delayed analysis and manual sampling. It introduces advanced online instrumentation, including sensors and analyzers, which provide continuous monitoring of wastewater parameters. These instruments measure key indicators such as pH, conductivity, and chemical composition, offering immediate insights into wastewater quality. Key areas of discussion include integrating supervised ML algorithms with online instrumentation to enhance detection accuracy and response times. The chapter explains how ML models are trained using historical data to recognize patterns and anomalies indicative of industrial discharge. The role of data preprocessing, feature selection, and model validation in developing robust ML models is also explored. Case studies from various industries illustrate successful applications of these technologies, demonstrating improved detection capabilities and faster response to potential contamination events. Economic and environmental benefits, such as reduced compliance costs and minimized ecological impact, are highlighted. By providing a comprehensive overview, this chapter aims to inform industry stakeholders about the advantages of combining online instrumentation with supervised ML, promoting the adoption of advanced technologies for effective industrial discharge monitoring and environmental protection.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	IMPACT OF HEAVY SLOW RESISTANCE VS. CONVECTIONAL EXERCISE IN LATERAL EPICONDYLITIS—A PILOT STUDY		DIVYA MARY S M (PHYSIOTHERAPY)
AUTHORS	DIVYA MARY S M, JIBI PAUL, HEMA V H, P SENTHIL.		
JOURNALNAME	HEALTH CARE SCIENCE		
SNIP-NIL	IMPACTFACTOR-NIL	INDEXED-SCOPUS/WOS	

ABSTRACT

Background: The extensor carpi radialis muscle may become imbalanced compared to other muscles in the upper arm and can disrupt the overall muscle balance in the upper limb. This muscular imbalance may then cause inflammation or irritation in the tendon. Regular physical activity is rarely used as the only treatment for lowering limb edema. Heavy slow resistance (HSR) training is effective compared to regular exercises. HSR affects functional abilities and physical refinement differently from conventional workouts. This study evaluated the effects of HSR and conventional exercise (CE) on subjects aged 45–65 years with unilateral elbow pain in Chennai city. **Methods:** The patient received conservative care in the Physiotherapy Department from January 2022 to April 2022. This study compares the pre- and post-types. Tennis Elbow Evaluation (Patient-Rated Tennis Elbow Evaluation, PRTEE) questionnaires, a patient-specific functional scale, and grip strength tests were used in the study. Results from the study's treatment HSR group and treatment CE group are contrasted. After 12 weeks of therapy, investigators reassessed grip strength, PRTEE scores, and functional scale responses. In the post-test results of the Patient-Rated Tennis Elbow Evaluation survey, there is a statistically significant difference between Group HSR and Group CE ($p < 0.001$). The post-test outcomes from the patient-specific activity scoring scheme questionnaire revealed a statistically significant disparity between Groups HSR and CE ($p < 0.001$). The mean values for both groups exhibited a noteworthy change, with Team HSR demonstrating higher values in contrast to the control treatment. HSR exercise demonstrates superior effectiveness over CEs for lateral epicondylitis (LE) management, emphasizing its significance in treatment

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	EVALUATION OF ANTIBACTERIAL, ANTIOXIDANT AND ANTI-INFLAMMATORY POTENTIAL IN THE METHANOLIC EXTRACT OF CAULERPA RACEMOSA MARINE ALGAE		 Dr. SENTHIL RAJ R (PHARMACY)
AUTHORS	SENTHIL RAJ R, MAGESH MOHAN, DEEPIKA DEVARAJ, GOKUL RAJ GOPINATH, SUDHARSAN PEROUMAL, VIJAYA KISHORE KANAKARAJU, MADHURI LATHA THADANKI		
JOURNALNAME	INTERNATIONAL JOURNAL OF ADVANCED SCIENCE AND ENGINEERING		
SNIP-NIL	IMPACTFACTOR-NIL	INDEXED-SCOPUS	

ABSTRACT:

Marine organisms, particularly algae, have garnered significant attention due to their rich biodiversity and potential as sources of novel bioactive compounds. Among them, *Caulerpa racemosa*, a green alga commonly found in tropical marine environments, has been recognized for its therapeutic potential, but its biological activities remain underexplored. The current study investigates the antibacterial, antioxidant, and anti-inflammatory potential of *Caulerpa racemosa* methanolic extract. The antibacterial activity was evaluated against four bacterial strains (*Staphylococcus aureus*, *Streptococcus mutans*, *Shigella sonnei*, and *Micrococcus luteus*) using the well diffusion method. The extract exhibited dose-dependent antibacterial activity, with the highest inhibition zone of 15.6 ± 0.2 mm against *M. luteus* at 100 $\mu\text{g/mL}$. The biofilm inhibition assay also revealed a significant reduction in biofilm formation, with *M. luteus* showing the highest inhibition ($15.6 \pm 0.2\%$) at 100 $\mu\text{g/mL}$. The antioxidant activity was assessed using the DPPH assay, where the extract demonstrated a concentration-dependent increase in radical scavenging activity, with a maximum of 69.14% RSA at 100 $\mu\text{g/mL}$ and an IC_{50} value of 8.40 $\mu\text{g/mL}$, indicating potent antioxidant potential. In the anti-inflammatory assay, the extract was tested using the BSA denaturation method. A concentration-dependent inhibition of protein denaturation was observed, with the highest inhibition of 88.50% at 50 $\mu\text{g/mL}$. The results suggest that *Caulerpa racemosa* methanolic extract possesses significant antibacterial, antioxidant, and anti-inflammatory properties, making it a promising candidate for further studies in the development of natural therapeutic agents

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	INNOVATIVE OPTIMAL PATH SELECTION WITH STREET-CENTRIC ROUTING IN URBAN VEHICULAR AD HOC NETWORKS	
AUTHORS	MARGABANDU ANAND, P VENUGOPAL, DALIA ALTARAZI, GANESH KUMAR M, RAKESH ADAKANE, PARIMALA SUBRAMANIAM	
JOURNALNAME	2025 INTERNATIONAL CONFERENCE ON FRONTIER TECHNOLOGIES AND SOLUTIONS (ICFTS)	
SNIP-NIL	IMPACTFACTOR-NIL	INDEXED-SCOPUS



Dr. MARGABANDU ANAND (ECE)

ABSTRACT:

An innovative approach, the IOSSR model, aimed at optimizing routing in urban VANETs. Leveraging bus density and path consistency probabilities, IOSSR enhances data transmission efficiency and reliability. The model integrates realistic channel models and optimal relay selection for improved signal reception, contributing to advancements in intelligent transportation systems. IOSSR demonstrates improved performance in key metrics like delivery ratio and efficiency. The comprehensive analysis showcases IOSSR's effectiveness in addressing challenges and optimizing communication in urban VANET environments, highlighting its potential for enhancing urban mobility and transportation systems.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	ADVANCEMENTS AND SECURITY CHALLENGES IN THE INDUSTRIAL INTERNET OF THINGS (IIOT)		 Dr.ISMAIL KALILULAH SADIQ BASHA (CSE)
AUTHORS	RAMESH KRISHNAN S, ISMAIL KALILULAH SADIQ BASHA, V THANAMMAL INDU, M GOKULDHEV, S DEEPA		
JOURNALNAME	2024 INTERNATIONAL CONFERENCE ON INTEGRATION OF EMERGING TECHNOLOGIES FOR THE DIGITAL WORLD (ICIETDW)		
SNIP-NIL	IMPACTFACTOR-NIL	INDEXED-SCOPUS	

ABSTRACT:

This paper explores the significant advancements in IIoT, focusing on the increased efficiency, productivity, and innovation brought about by interconnected industrial systems. Despite the numerous benefits, the paper also delves into the critical security challenges inherent in IIoT deployments. These include vulnerabilities in network infrastructure, potential cyber-attacks targeting industrial control systems, and data privacy concerns stemming from the vast amounts of sensitive information generated. The analysis highlights the necessity for robust cybersecurity measures, including advanced encryption, intrusion detection systems, and secure communication protocols. This report offers a thorough assessment of the current status of IIoT technology by looking at both the opportunities and threats related to it. It offers insights into best practices and emerging solutions aimed at mitigating security threats, ensuring a secure and resilient industrial ecosystem. The paper concludes by discussing future directions for research and development, emphasizing the importance of a multidisciplinary approach to addressing the complex challenges and unlocking the full potential of IIoT.

Dr. M.G.R. RESEARCH PUBLICATION APPRECIATION –MARCH 2025

PAPERTITLE	IMPROVED GAME THEORY-BASED SCHEDULING MODEL FOR VEHICULAR ADHOC NETWORK		 Dr.B RAJA (ECE)
AUTHORS	B RAJA, A VAMSI, ALA'A AL-SHAikh, B DHARANI, SUNHERIYA N, RAZIFF HAMSAN		
JOURNALNAME	2025 INTERNATIONAL CONFERENCE ON FRONTIER TECHNOLOGIES AND SOLUTIONS (ICFTS)		
SNIP-NILL	IMPACTFACTOR-NILL	INDEXED-SCOPUS	

ABSTRACT:

A proposed IGTSM aims to optimize scheduling and data transfer efficiency in Vehicular Ad Hoc Networks (VANETs) by integrating non-cooperative game theory. In this model, vehicles strategically select the next hop for data transmission, minimizing network traffic and vehicle costs. Through theoretical analysis and simulations, the IGTSM achieves a Nash equilibrium point, maximizing network performance. The abstract provides an overview of the challenges faced in VANETs, highlighting the need for efficient communication protocols to address road safety concerns and traffic management issues. The proposed IGTSM offers a novel solution by leveraging game theory principles, demonstrating its effectiveness through comparative performance analysis against existing techniques. This research contributes to advancing communication protocols in VANETs, ultimately enhancing reliability, efficiency, and overall network performance.



THANK YOU